2002 Long Range Development Plan Final Environmental Impact Report

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VOLUME 1

2002 Long Range Development Plan
Draft Environmental Impact Report

Volume I

University of California, Los Angeles
2002 Long Range Development Plan
Draft Environmental Impact Report
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Prepared for:
University of California, Los Angeles
1060 Veteran Avenue
Los Angeles, CA 90095-1365

Prepared by:
EIP Associates
12301 Wilshire Boulevard, Suite 430
Los Angeles, CA 90025

with the assistance of

Crain & Associates
2007 Sawtelle Boulevard, Suite 4
Los Angeles, CA 90025

RBF Consulting
14725 Alton Parkway
Irvine, CA 92618-2027

Hamilton, Rabinowitz, & Alschuler (HRA), Inc.
6033 W. Century Boulevard, Suite 890
Los Angeles, CA 90045

URS Corporation
2020 East First Street, Suite 400
Santa Ana, CA 92705

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PREFACE

This document, in its entirety (Volumes 1, 1a, 2, 3, and 3a), constitutes the Final Environmental Impact Report (Final EIR) for the 2002 Long Range Development Plan (LRDP) and Northwest Housing Infill Project (NHIP). A Final EIR is defined by Section 15362(b) of the California Environmental Quality Act (CEQA) *Guidelines* as "...containing the information contained in the Draft EIR; comments, either verbatim or in summary, received in the review process; a list of persons commenting; and the response of the Lead Agency to the comments received."

This 2002 LRDP Final EIR is composed of five volumes. They are as follows:

Volumes 1 and 1a **2002 LRDP Draft EIR and Technical Appendices**—These volumes describe the existing environmental setting on the UCLA campus and in the vicinity of the campus; analyze potential impacts on that setting due to implementation of the 2002 LRDP; identify mitigation measures that could avoid or reduce the magnitude of significant impacts; evaluate cumulative impacts that would be caused by the project in combination with other future projects or growth that could occur in the region; analyze growth-inducing impacts; and provide a full evaluation of the alternatives to the proposed project that could eliminate, reduce, or avoid project-related impacts. Refer to the Contents of Volume 1 for a complete list of appendices. Any text revisions due to corrections of errors, or resulting from comments received on the Draft EIR, are included in Volume 3.

Volume 2 **2002 LRDP/NHIP Draft EIR and Technical Appendices**—This volume provides project-specific analysis of the NHIP, a component of the 2002 LRDP. This volume describes the existing environmental setting on the NHIP project site and in the vicinity of the project site; analyzes potential impacts on that setting due to construction and operation of the NHIP; identifies mitigation measures that could avoid or reduce the magnitude of significant impacts; and provides a full evaluation of the alternatives to the proposed project that could eliminate, reduce, or avoid project-related impacts. Refer to the Contents of Volume 2 for a complete list of appendix titles. Any text revisions due to corrections of errors, or resulting from comments received on the Draft EIR, are included in Volume 3.

Volumes 3 and 3a **Draft EIR Text Changes, Responses to Comments, and Mitigation Monitoring and Reporting Programs**—This volume contains an explanation of the format and content of the Final EIR; all Draft EIR text changes; a complete list of all persons, organizations, and public agencies that commented on the Draft EIR; copies of the actual comment letters; the transcript from the public hearing; the Lead Agency's responses to all comments; and the Mitigation Monitoring and Reporting Programs (MMRPs).

REVIEW PROCESS

The Draft LRDP and EIR for the 2002 LRDP, including the NHIP, was issued on October 31, 2002, and initially circulated for public review and comment for a 46-day period scheduled to end on December 16, 2002. In response to a request from the community, the public review and comment period was extended an additional 4 days to December 20, 2002. During the public review period, copies of the Draft EIR were distributed to public agencies through the State of California, Office of Planning and Research. UCLA also directly distributed the document to over eighty individuals, agencies, and organizations. Copies of the Draft EIR were available for review at two on-campus libraries and nine off-campus libraries. In addition, the Draft EIR was available on UCLA's website and at the UCLA Capital Programs Facility, which is located at 1060 Veteran Avenue, Third Floor, on the UCLA campus.

Although not required by CEQA or the *CEQA Guidelines*, a Community Information and EIR Scoping Meeting for the proposed project was also held on April 6, 2002, to solicit input from interested agencies, individuals, and organizations regarding the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in this EIR. A public hearing was also held on November 20, 2002, on the UCLA campus during which the public was given the opportunity to provide comments on the Draft EIR. Nine persons presented verbal comments on the proposed project and the Draft EIR during the public hearing.

REVISIONS TO THE DRAFT EIR

Revisions to the text of the Draft EIR have been made in Volume 3 of this Final EIR, with ~~strikethrough~~ text for deletions and double underline text for additions.

MITIGATION MONITORING AND REPORTING PROGRAMS

An MMRP will be adopted by The Board of Regents of the University of California (The Regents) for both the 2002 LRDP and the NHIP, as required for compliance with Sections 21081(a) and 21081.6 of the Public Resources Code. The proposed MMRPs are included in their entirety in Volume 3a (Chapter IV and Chapter V) of this Final EIR. All 2002 LRDP and NHIP mitigation measures included in the 2002 LRDP Final EIR for this project would be monitored by the appropriate campus entity, and reported on an annual basis.

Chapter 1 INTRODUCTION

This Environmental Impact Report (EIR) assesses the potential environmental effects of the proposed update to the University of California, Los Angeles (UCLA) Long Range Development Plan (LRDP), which was previously adopted by The Board of Regents (The Regents) of the University of California in November 1990. The proposed update (the 2002 LRDP) is being undertaken to accommodate an increased enrollment of 4,000 full-time-equivalent (FTE) students through 2010–11 to meet the anticipated demand for public higher education that will result from a projected increase in the number of high school graduates over the next decade. The 2002 LRDP also includes a project-specific component to provide additional student housing in the Northwest zone of campus (the Northwest Housing Infill Project, or NHIP). As required by the California Environmental Quality Act (CEQA), this EIR (1) assesses the expected individual and cumulative impacts of the University's physical development and land use plan, as set forth in the 2002 LRDP; (2) identifies means of avoiding or minimizing potential adverse environmental impacts; and (3) evaluates a reasonable range of alternatives to the proposed project, including the No Project Alternative.

1.1 BACKGROUND

In accordance with the Master Plan for Higher Education, which guarantees access to the University of California (UC) for the top 12.5 percent of California's public high school graduates, the University is now having to plan to increase enrollment to meet the anticipated demand for public higher education. Both the State Legislature and the Governor, through his Partnership with the University of California, expect much of the growth to be accommodated by expanding summer enrollment and have provided State funds to support summer instruction.

UCLA was asked to plan to accommodate an increased enrollment of 4,000 FTE students through 2010. As the increased enrollment would exceed the student enrollment projections described in the 1990 LRDP, the 2002 LRDP and the 2002 LRDP EIR have been prepared in compliance with Section 21080.09 of CEQA.

Planning efforts underway to update the LRDP have also converged with planning to address the housing needs of existing and anticipated student enrollment. Therefore, the University also proposes the development of additional student housing in the Northwest zone of the campus. The potential environmental impacts of both the 2002 LRDP and the NHIP are considered in this 2002 LRDP EIR.

The EIR consists of two volumes: first, a program-level analysis is provided for implementation of the 2002 LRDP, and second, a project-level analysis is provided for implementation of the NHIP.

The 1990 LRDP Final EIR previously analyzed the environmental consequences of 3.71 million gross square feet (gsf) of new development that was anticipated to occur between 1990 and 2005. The 2002 LRDP EIR evaluates the completion of the previously analyzed development program, of which approximately 1.71 million gsf of the original 3.71 million gsf remains, as well as the anticipated enrollment and population increase (for both the regular and summer sessions). The remaining 1.71 million gsf would be reallocated among the eight campus land use zones to accommodate existing program space needs and those associated with student enrollment and campus population growth, in support of the campus mission of instruction, research, and public service. At the same time, the 2002 LRDP extends the planning horizon of the 1990 LRDP from academic year 2005–06 to 2010–11,[1] while maintaining the same limits on parking spaces and vehicle trips established in 1990, and accommodating on-campus population growth for both the regular session and the summer session.

1.2 PURPOSE OF THE EIR

UCLA, as directed by the University of California (UC), has prepared this EIR for the following purposes:

- To satisfy the requirements of CEQA
- To inform the general public, the local community, responsible and interested public agencies, and The Regents of the scope of the 2002 LRDP, its potential environmental effects, possible measures to mitigate those effects, and alternatives to the 2002 LRDP
- To enable The Regents to consider environmental consequences when deciding whether to adopt the 2002 LRDP and to approve the Northwest Housing Infill Project
- To provide a basis for the preparation of subsequent environmental documentation for future campus development proposals
- To serve as a source document for responsible agencies to issue permits and approvals, as required, for specific development that occurs during the 2002 LRDP planning horizon

This EIR has been prepared in accordance with CEQA, the CEQA Guidelines, and the UC procedures for implementing CEQA. The determination that the University is the "lead agency" is made in

[1] While the planning horizon for the 2002 LRDP is anticipated to be 2010–11, the LRDP could continue beyond that year, provided that the development allocation, vehicle trip, and parking limits are maintained. Further, irrespective of the actual date of the horizon year, the 2002 LRDP EIR shall remain a valid basis for evaluating impacts resulting from implementation of the 2002 LRDP so long as compliance with Sections 15162 through 15164 and 15168 of the CEQA Guidelines is maintained.

accordance with Sections 15051 and 15367 of the CEQA Guidelines, which define the lead agency as the public agency that has the principal responsibility for carrying out or approving a project. Further, preparation of this EIR is subject to Section 21080.09(d) of the Public Resources Code (PRC), which requires that public higher education institutions consider the environmental impacts of academic and enrollment plans.

1.3 TYPE OF EIR

The 2002 LRDP is a land use plan that guides the physical development of the campus. It is not an implementation plan, and adoption of the LRDP does not constitute a commitment to any specific project, construction schedule, or funding priority. Rather, it describes the entire development program of 1.71 million gsf for the campus through 2010–11. Each development proposal undertaken during the planning horizon of the LRDP must he approved individually by the Chancellor (after consultation and review by the Academic Senate and other appropriate segments of the campus community), by the UC Office of the President, and/or The Board of Regents (The Regents) of the University of California, as appropriate, in compliance with CEQA. Therefore, the 2002 LRDP EIR is a program-level environmental assessment that evaluates the effects of implementation of the entire LRDP. The LRDP environmental assessment is provided in this volume (Volume 1) of the 2002 LRDP EIR.

As previously described, preparation of the LRDP converged with a project-specific proposal to provide additional housing to accommodate existing and anticipated student enrollment. The proposed NHIP is described in detail, including the project-specific environmental analysis, in Volume 2 of the 2002 LRDP EIR.

With respect to individual development projects that may be proposed during the 2002 LRDP planning horizon, Section 15168(c) of the CEQA Guidelines states that subsequent activities should be examined in light of the Program EIR to determine whether additional environmental documentation must be prepared. If a later activity would have effects that were not examined in the Program EIR, subsequent environmental documentation must be prepared, consistent with Sections 15162 through 15164 of the CEQA Guidelines. If no new effects would occur and no new mitigation measures would be required, the subsequent activity could rely on the scope of the environmental analysis provided in the Program EIR, and no additional environmental documentation would be required.

1.4 EIR REVIEW PROCESS

On June 12, 2001, UCLA filed a Notice of Preparation (NOP) for the 2002 LRDP EIR. A revised NOP (including an Initial Study [IS]) was subsequently filed on March 20, 2002, to acknowledge that the potential environmental effects of both the 2002 LRDP and the proposed NHIP would be considered in a single EIR. The 30-day public review period for the revised NOP ended on April 19, 2002.

Although not required by CEQA or the CEQA Guidelines, a Community Information and EIR Scoping Meeting for the proposed project was also held on April 6, 2002, to solicit input from interested agencies, individuals, and organizations regarding the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in this EIR.

During the NOP review periods, and as part of the Scoping Meeting, both written and verbal comments were submitted by a variety of agencies, organizations, and individuals. Appendix 1 to this document provides the first NOP, including all comment letters received by UCLA, while Appendix 2 provides the second (and final) NOP/IS, also including all comment letters received by UCLA. The transcript from the Scoping Meeting, and written comments submitted in direct response to the Scoping Meeting, is provided in Appendix 3. A comprehensive list of all agencies, organizations, and individuals who commented in response to both NOPs and the Scoping Meeting is provided in Appendix 2.

This EIR is being circulated for review and comment to the public and other interested parties, agencies, and organizations for a 45-day period. The comment period will begin on November 1, 2002, and end on December 16, 2002. A public hearing on the Draft EIR, where oral comments may be presented, will also be held at 7:00 P.M. on November 20, 2002, at the UCLA Faculty Center, which is located at 408 Charles E. Young Drive East. During the review period, the Draft EIR will be available on the web at www.capital.ucla.edu and at two on-campus libraries, the Charles E. Young Research Library and the Biomedical Library. In addition, the Draft EIR will be available at the following nine off-campus libraries:

Beverly Hills Public Library
444 North Rexford Drive
Los Angeles, CA 90210

Santa Monica Public Library
1343 Sixth Street
Santa Monica, CA 90401

Donald Bruce Kaufman/
Brentwood Branch Library
11820 San Vicente Boulevard
Los Angeles, CA 90049

West Hollywood Library
715 North San Vicente Boulevard
West Hollywood, CA 90069

Robertson Branch Library
1719 South Robertson Boulevard
Los Angeles, CA 90035

Culver City Julian Dixon Library
4975 Overland Avenue
Culver City, CA 90230

West Los Angeles Regional Branch Library
11360 Santa Monica Boulevard
Los Angeles, CA 90025

Studio City Branch Library
12511 Moorpark Street
Studio City, CA 91604

Katy Geissert Civic Center Library
3301 Torrance Boulevard
Torrance, CA 90503

This Draft EIR will also be available for review at the Capital Programs building located at 1060 Veteran Avenue (third floor) from 8:00 A.M. to 5:00 P.M., Monday through Friday.

Written comments on the EIR may be provided by e-mail, submitted to www.capital.ucla.edu/ep-curr-proj.html, or may be sent via U.S. mail or FAX and addressed to

Ms. Tova Lelah, Assistant Director
UCLA Capital Programs
1060 Veteran Avenue, Box 951365
Los Angeles, CA 90095-1365
Fax: (310) 206-1510

Following the public hearing and after the close of the written public comment period on the Draft EIR, responses to written and recorded comments will be prepared and published. The Final EIR, which will consist of the Draft EIR, comments on the Draft EIR, written responses to those comments, and the Mitigation Monitoring and Report Program (MMRP), will be considered for certification by The Regents, consistent with Section 15090 of the CEQA Guidelines. The Regents must consider the Final EIR prior to any decision to approve or reject the proposed project, and the 2002 LRDP and the NHIP (as a separate action) can only be approved if the 2002 LRDP EIR is certified. If the 2002 LRDP EIR is certified and tbe 2002 LRDP is approved, written findings will be prepared for each significant adverse environmental effect identified in the Final EIR, as required by Section 15091 of the CEQA Guidelines. The University must also adopt the MMRP to ensure compliance with mitigation measures that have been incorporated into the project to reduce or avoid significant effects on the environment during project construction and/or implementation.

Where feasible mitigations are not available to reduce significant environmental impacts to a less-than-significant level, impacts are considered significant and unavoidable. If The Regents approves a project that has significant and unavoidable impacts, The Regents shall also state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record. This is called a "Statement of Overriding Considerations" and is used to explain the specific reasons that the benefits of a proposed project make its unavoidable environmental effects acceptable. The Statement of Overriding Considerations is adopted at the time the Final EIR is certified, and before action to approve the project has been taken.

1.5 INTENDED USES OF THE EIR

As previously discussed, this EIR will be used by The Regents to evaluate the environmental impacts of its decision with respect to approval or denial of the 2002 LRDP, and, as a separate action, the NHIP. In the event that the 2002 LRDP is approved, this EIR will be used to tier subsequent environmental analysis for future development included within the remaining 1.71 million gsf allocated under the 2002 LRDP, as allowed by Section 15152 of the CEQA Guidelines.

Under CEQA, other public agencies that have discretionary authority over the project, or aspects of the project, are considered responsible agencies. The responsible agencies for the 2002 LRDP include, but are not necessarily limited to, the State Water Resources Control Board, Regional Water Quality Control Board, South Coast Air Quality Management District, Caltrans, and the City of Los Angeles Department of Transportation. This document can be used by the responsible agencies to comply with CEQA in connection with permitting or approval authority over the project. The University prepared this EIR to address all State, regional, and local government approvals needed for construction and/or operation of the project, whether or not such actions are known or are explicitly listed in this EIR. Examples of the anticipated approvals required to implement the 2002 LRDP include the following:

University of California Board of Regents

- Certification of the EIR
- Adoption of the Statement of Overriding Considerations
- Approval of the proposed 2002 LRDP
- Approval of the Northwest Housing Infill Project
- Adoption of the Findings of Fact
- Adoption of the Mitigation Monitoring and Reporting Program

Los Angeles Regional Water Quality Control Board/State Water Resources Control Board

- National Pollutant Discharge Elimination System (NPDES) General Construction Permit[2]

South Coast Air Quality Management District

- Permits to Construct and/or Permits to Operate (for any new or relocated stationary sources of equipment that emit or control air contaminants, such as heating, ventilation, and air conditioning [HVAC] units)

Caltrans/City of Los Angeles Department of Transportation

- Encroachment Permits (for individual projects requiring work within State or City rights-of-way)

1.6 EIR FORMAT AND CONTENTS

This EIR is organized in two primary volumes (Volumes 1 and 2) and one secondary volume (Volume 1a). Volume 1 addresses the environmental impacts of the physical development of the 2002 LRDP, while Volume 2 addresses the specific impacts of the NHIP. (The technical appendices of Volume 1 are provided under separate cover as Volume 1a; the technical appendices of Volume 2 are located at the back of Volume 2.) Both primary volumes of this EIR describe the existing environmental conditions on and in the vicinity of the project site, analyze potential project-related impacts on environmental resources, identify mitigation measures and existing campus programs, practices, and procedures that could avoid or reduce the magnitude of project-related impacts, and provide an evaluation of a reasonable range of alternatives to the proposed project that could eliminate, reduce, or avoid identified project impacts while attaining most of the basic project objectives. In addition to project-related impacts, this EIR also provides an evaluation of cumulative impacts that would be caused by the project in combination with other future projects or growth that could occur in the region. In this fashion, the cumulative impact analysis considers the additive effect of future projects, both on and off campus, including the 2002 LRDP. As required by Section 15126.2(d) of the CEQA Guidelines, this EIR also provides an analysis of growth-inducing impacts, which are defined as "environmental impacts that could result in additional growth by the proposed project by either removing an obstacle to development or by generating substantial increased growth of the local or regional economy."

[2] A Phase I NPDES permit is currently required if the area of ground disturbance associated with construction activities exceeds five acres. Under the Phase II NPDES permit, which will become effective March 10, 2003, a NPDES permit would be required if the area of ground disturbance associated with construction activities exceeds one acre.

The contents of Volume 1 of the 2002 LRDP EIR include the following:

- *Chapter 1.0: Introduction*—This section provides an overview of the background of the 2002 LRDP, the purpose of the EIR, the type of EIR, the EIR review process, the intended uses of the EIR, and an overview of the format and contents of the EIR.
- *Chapter 2.0: Executive Summary*—This section includes a brief synopsis of the proposed project and project objectives, community/agency issues, a description of the Mitigation Monitoring and Reporting Program, and an overview of project alternatives. This Chapter also summarizes environmental impacts that would result from implementation of the proposed project; proposed mitigation measures and/or campus programs, practices, and procedures that would avoid or reduce project-related impacts; and the level of significance of impacts both before and after mitigation.
- *Chapter 3.0: Project Description*—This section provides a detailed description of the proposed project, including its location, background information, objectives, and technical characteristics.
- *Chapter 4.0: Environmental Setting, Impacts, and Mitigation Measures*—This section contains an analysis of environmental impacts for each environmental issue area. Each environmental issue area contains a description of the environmental setting (or existing conditions), identifies project-related and cumulative impacts, describes existing campus programs, practices, and procedures that address those impacts, and recommends feasible mitigation measures that would avoid or minimize significant environmental impacts. The "Introduction to the Analysis," at the beginning of the chapter, provides an overview of the scope and format of the environmental analysis, including a description of the baseline for analytical purposes.
- *Chapter 5.0: Other CEQA Considerations*—This section summarizes impacts that would result from the proposed project, including significant environmental effects, significant and unavoidable environmental effects, irreversible changes to the environment, and growth-inducing impacts.
- *Chapter 6.0: Alternatives*—This section describes alternatives to the proposed project that would feasibly attain most of the basic objectives of the project while avoiding or substantially lessening any of its significant effects. The analysis evaluates the environmental effects that would result from implementation of each of the alternatives and compares these effects to the effects that would result from implementation of the proposed project.
- *Chapter 7.0: Report Preparers/Organizations and Persons Consulted*—This section identifies all federal, State, or local agencies, other organizations, and/or private individuals consulted during preparation of the EIR, as well as the firm who prepared the EIR under contract to the University.
- *Chapter 8.0: References*—This section provides bibliographic references for all information sources used during preparation of the EIR.

1.7 LIST OF ABBREVIATIONS

The following comprehensive list of abbreviations is provided to clarify references used in this EIR.

Table 1-1 List of Abbreviations

AB	Assembly Bill
ADT	average daily trips
AEA	Atomic Energy Act
AGSM	Anderson Graduate School of Management
AHC	Academic Health Center
AHCFRP	Academic Health Center Facilities Reconstruction Plan
ANSI	American National Standards Institute
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
ATCS	Adaptive Traffic Control System
ATSAC	Automated Traffic Surveillance and Control
AVR	Average Vehicle Ridership
AVTA	Antelope Valley Transportation Authority
BACT	Best Available Control Technology
BMP	Best Management Practices
BTU	British thermal units
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CAR	Commuter Assistance-Ridesharing
CBC	California Building Code
CCB	Culver City Bus
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDMG	California Department of Conservation, Division of Mines and Geology
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CHRIS	California Historic Resources Information System
CIWMB	California Integrated Waste Management Board
CMA	Critical Movement Analysis
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	community equivalent noise level
CNG	compressed natural gas

Table 1-1	List of Abbreviations
CO	carbon monoxide
CPA	Community Planning Area
CRHR	California Register of Historic Resources
CSO	Community Service Officer
CSWMP	Comprehensive Stormwater Management Program
CWA	Clean Water Act
D/C	demand/capacity
dB	decibels
dBA	A-weighted decibels
DHS	California Department of Health Services
DIRT	Disaster Initial Response Team
DTSC	California Department of Toxic Substances Control
DU	Dwelling Unit
EDR	Environmental Data Resources
EH&S	Environment, Health and Safety
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESB	Emergency Services Building
ESF	Energy System Facility
ESF	Environmental Service Facility
EV	electric vehicle
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FHWA-RD-77-108	Federal Highway Prediction Model
FICUN	Federal Interagency Committee on Urban Noise
FIRM	Flood Insurance Rate Map
FRA	Federal Railroad Administration
ft^3	cubic feet
FTE	full-time equivalent
gpd	gallons per day
gsf	gross square feet
HCM	Highway Capacity Manual
HI	Hazard Index
HOV	high occupancy vehicle
HRA	Health Risk Assessment
HTP	Hyperion Treatment Plant
HUD	United States Department of Housing and Urban Development

Table 1-1	List of Abbreviations
HVAC	heating, ventilation, and air conditioning
IFPS	Intramural Field Parking Structure
IS	Initial Study
IWMD	Industrial Waste Management Division
kWh	kilowatt-hour
LAA	Los Angeles Aquaduct
LACMTA	Los Angeles County Metropolitan Transportation Authority
LADOT	Los Angeles Department of Transportation
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles Fire Department
LAPD	Los Angeles Police Department
LAUSD	Los Angeles Unified School District
LAX	Los Angeles World Airport
L_{eq}	equivalent energy noise level
LLRW	low-level radioactive waste
L_{max}	maximum instantaneous noise level
L_{min}	minimum instantaneous noise level
LNG	liquid natural gas
LOS	level of service
LRDP	Long Range Development Plan
LUST	leaking underground storage tanks
MBTA	Migratory Bird Treaty Act
MCE	maximum credible earthquake
MDU	multiple dwelling unit
MEI	maximally exposed individual
MEP	maximum extent practicable
mgd	million gallons per day
MM	mitigation measure
mmBTU	one million British thermal units
MMP	Mitigation Monitoring Program
MMRP	Mitigation Monitoring and Reporting Program
MOU	Memorandum of Understanding
MS4s	municipal separate storm sewer systems
MSDS	material safety data sheets
MTA	Metropolitan Transportation Authority
MTBE	methyl tertiary-butyl ether
Mw	moment magnitude
MWD	Metropolitan Water District

Table 1-1	List of Abbreviations
NHIP	Northwest Housing Infill Project
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historical Places
NTSB	National Transportation Safety Board
OEHHA	Office of Environmental Health Hazard Assessment
Pb	lead
PCB	polychlorinated biphenyls
PM_{10}	particulate matter 10 microns in size or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns in size or less in diameter
PPM	parts per million
PPs	campus programs, practices, and procedures
PRC	Public Resources Code
psi	pounds per square inch
RCPG	Regional Comprehensive Plan and Guide
RCRA	Resources Conservation Recovery Act
RD	reporting district
RMPP	Risk Management Prevention Plan
RSD	Radiation Safety Division
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCGC	Southern California Gas Company
SCH	State Clearinghouse
SCT	Santa Clarita Transit
SEAS	School of Engineering and Applied Sciences
sf	square feet
SFB	San Fernando Basin
SHMP	Student Housing Master Plan
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SMMBL	Santa Monica Municipal Bus Lines
SO_2	sulfur dioxide
SOx	sulfur oxides

Table 1-1	List of Abbreviations
SQTF	Stormwater Quality Task Force
SRA	source receptor area
SRLF	Southern Regional Library Facility
SWH	Southwest Campus Housing Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TDM	Transportation Demand Management
TDS	total dissolved solids
TES	thermal energy storage system
TMMA	Transportation Mitigation Monitoring Program
TSA	Transportation Systems Analysis
UBC	Uniform Building Code
UC	University of California
UCLA	University of California, Los Angeles
UCPD	University of California Police Department
UES	University Elementary School
URBEMIS	Urban Emissions Model
USDHHS	Unites States Department of Health and Human Services
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
UST	underground storage tanks
USTP	Underground Storage Tank Program
UWMP	Urban Water Management Plan
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compounds
VPR	vehicles per hour
WDR	waste discharge requirements
ZOA	zone of analysis

Chapter 2 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

2.1 PURPOSE OF THE SUMMARY

This summary is intended to highlight the major areas of importance in the environmental analysis for the proposed 2002 LRDP as required by Section 15123 of the California Environmental Quality Act (CEQA) Guidelines. The summary includes a brief description of the 2002 LRDP, the project objectives, community/agency issues, the purpose of the Mitigation Monitoring and Reporting Program, and alternatives to the 2002 LRDP. In addition, this chapter also provides a table summarizing (1) the potential environmental impacts that would occur as result of the 2002 LRDP; (2) the level of significance before mitigation measures; (3) the recommended mitigation measures and/or existing campus programs, practices, and procedures that avoid significant environmental impacts; and (4) the level of significance after mitigation measures are implemented. Finally, a comparison of the proposed project to the project alternatives is also provided. A separate impact summary table and alternatives comparison table for the Northwest Housing Infill Project (NHIP) is provided in Volume 2 of this EIR.

2.2 PROJECT DESCRIPTION

The University of California is directed by the Master Plan for Higher Education in California to provide instruction in the liberal arts and sciences, and for professional education in Law, Medicine, Veterinary Medicine, and Dentistry. It is also assigned exclusive responsibility for doctoral education in most disciplines, and is designated as the primary State-supported academic agency for research. UCLA's mission within this context is to offer teaching, research, and public service programs of the highest quality to serve the needs of the Los Angeles region, the State of California, and the nation.

The UCLA Long Range Development Plan (LRDP) is the comprehensive land use plan that guides physical development of the campus to support its teaching, research, and public service mission. The LRDP identifies institutional goals and development objectives and delineates campus land use zones. It also estimates the new building space proposed for each zone. The previous LRDP, which was adopted in 1990 (1990 LRDP), proposed a total of 3.71 million gross square feet (gsf) of new development. It also established parking and vehicle trip generation limits while planning for an essentially stable student enrollment between 1990 and its planning horizon of 2005–06.

In accordance with the Master Plan for Higher Education, which guarantees access to the University of California for the top 12.5 percent of California's public high school graduates, the University is now having to plan to increase enrollments to meet the anticipated demand for public higher education that will result from a projected increase in the number of high school graduates over the next decade. Both the State Legislature and the Governor, through his Partnership with the University of California, expect much of the growth to be accommodated by expanding summer enrollment; accordingly, State funds have been provided to support summer instruction.

UCLA was asked to plan to accommodate an increased enrollment of 4,000 full-time-equivalent (FTE) students through 2010. As the increased enrollment would exceed the student enrollment projections described in the 1990 LRDP, the 2002 LRDP and the 2002 LRDP Environmental Impact Report (EIR) have been prepared in compliance with Section 21080.09 of the CEQA.

The 1990 LRDP Final EIR previously analyzed the environmental consequences of 3.71 million gross square feet (gsf) of new development that was anticipated to occur between 1990 and 2005. The 2002 LRDP EIR evaluates the completion of the previously analyzed development program, of which approximately 1.71 million gsf of the original 5.71 million gsf remains, as well as the anticipated enrollment and population increase (for both the regular and summer sessions). The remaining 1.71 million gsf would be reallocated among the eight campus land use zones to accommodate existing program space needs and those associated with student enrollment and campus population growth, in support of the campus mission of instruction, research, and public service. At the same time, the 2002 LRDP extends the planning horizon of the 1990 LRDP from academic year 2005–06 to 2010–11,[3] while maintaining the same limits on parking spaces and vehicle trips established in 1990, and accommodating on-campus population growth for both the regular session and the summer session.

As previously discussed, the second component of the 2002 LRDP EIR will consider the environmental effects of additional undergraduate student housing in the Northwest zone of the campus, which is a related element of the 2002 LRDP update. The NHIP would include (1) up to 2,000 beds of undergraduate student housing in three buildings on two sites (one building adjacent to Hedrick Hall and two buildings adjacent to Rieber Hall); (2) a parking facility south of Dykstra Hall to provide approximately 299 parking spaces (approximately 233 replacement spaces and 66 new spaces); and (3) a recreation complex, consisting of a recreation facility, a 25-meter pool, and nonspectator outdoor

[3] While the planning horizon for the 2002 LRDP is anticipated to be 2010–11, the LRDP could continue beyond that year, provided that the development allocation, vehicle trip, and parking limits are maintained. Further, irrespective of the actual date of the horizon year, the 2002 LRDP EIR shall remain a valid basis for evaluating impacts resulting from implementation of the 2002 LRDP so long as compliance with Sections 15162 through 15164 and 15168 of the CEQA Guidelines is maintained.

recreation space on a site between the Hitch and Saxon Residential Suites. The project would result in the construction of up to 550,000 net gsf of new development on the UCLA campus, which would be accommodated by a portion of the remaining 1.71 million square feet of development previously approved in the 1990 LRDP.

2.3 PROJECT OBJECTIVES

UCLA proposes to accommodate increased student enrollment while achieving preeminence in scholarship, educational leadership, and technological advancement by providing the highest quality teaching and research, professional preparation, and public service for the vital and diverse population it serves. In order to achieve this, the 2002 LRDP includes academic, physical, and operational objectives that are fully set forth in Chapter 3.0 (Project Description) of this document.

2.4 COMMUNITY/AGENCY ISSUES

This EIR addresses issues that are known or were raised by agencies or interested parties during the NOP public review periods with respect to the environmental resources associated with the proposed project. These issues include

- Traffic and parking
- Provision of open space
- Nesting birds, wildlife, and riparian resources
- Construction and operational air quality
- Consistency with the Stipulated Use Agreement, which addresses development in a portion of the Northwest zone of campus
- Consistency with specific policies of the Southern California Association of Government's *Regional Comprehensive Plan and Guide* (SCAG 1996)
- Existing conditions at the Hilgard bus terminal

2.5 MITIGATION MONITORING AND REPORTING PROGRAM

CEQA requires that a public agency adopt a Mitigation Monitoring and Reporting Program (MMRP) for mitigation measures that have been incorporated into the project to reduce or avoid significant effects on the environment. The MMRP is designed to ensure compliance during project implementation, as required by Public Resources Code Section 21081.6.

This EIR discusses feasible mitigation measures (MMs) that would be implemented to reduce significant environmental impacts. In addition, existing campus programs, practices, and procedures (PPs) that currently reduce environmental impacts will be continued throughout the LRDP planning horizon. The MMRP for the 2002 LRDP, which includes both MMs and PPs, and obligates the University to implement MMs and continue to follow PPs equally, will be prepared and reviewed by The Regents in conjunction with consideration of the LRDP and certification of the Final EIR.

2.6 ALTERNATIVES

A number of alternatives that would feasibly attain most of the basic project objectives while avoiding or substantially lessening some of the significant effects of the project were analyzed. These alternatives include:

- *Alternative 1: No Project/Continued Implementation of the 1990 LRDP through 2010–11*—This alternative assumes the same development levels, vehicle trip limits, parking limits, and population growth as articulated in the 1990 LRDP, which includes a maximum of 3.71 gsf of development, 139,500 vehicle trips, 25,169 parking spaces, and a total campus population of 68,169. However, this alternative assumes that the 1990 LRDP would be continued unless and until another LRDP is adopted, which is assumed to be 2010–11, thereby allowing for a plan-to-plan comparison of the 1990 LRDP and the 2002 LRDP as required by Section 15126.6(e)(3)(A) of the CEQA Guidelines.
- *Alternative 2: Off-Site Alternative*—This alternative assumes the relocation of discrete programs and associated parking to a 35-acre site at Playa Vista.
- *Alternative 3: Regular Session Growth Only*—This alternative assumes that all enrollment growth would be accommodated in the regular session, and no enrollment growth would occur in the summer session.

A detailed description of these alternatives, as well as an analysis of related environmental effects, is presented in Chapter 6 (Alternatives) of this EIR.

2.7 ENVIRONMENTAL IMPACTS

Table 2-1 (Summary of Environmental Effects and Mitigation Measures), provided at the end of this section, presents a summary of the environmental impacts resulting from the proposed 2002 LRDP. It has been organized to correspond with the environmental issues discussed in Chapter 4 (Environmental Setting, Impacts, and Mitigation Measures) and is arranged in four columns: the identified impact under each EIR issue area; the level of significance prior to mitigation; 2002 LRDP EIR mitigation measures (MMs) and/or existing campus programs, practices, and procedures (PPs) that would avoid or reduce the level of impacts; and the level of significance after implementation of mitigation measures, if applicable. The campus programs, practices, and procedures are considered to be part of the 2002 LRDP for purposes of determining the level of significance prior to mitigation. These PPs are also enforceable in the same manner as the mitigation measures. Where no mitigation is required, it is noted in the table.

While the campus has evaluated a range of potential mitigation measures to reduce significant project impacts, and will implement all feasible mitigation measures, construction and operation of the 2002 LRDP would result in the following significant and unavoidable impacts:

Air Quality

- Construction impacts resulting from peak daily emissions of NOx
- Operational impacts resulting from peak daily emissions of CO, VOC, and NOx during the twelve-week summer session

Noise

- Construction impacts resulting from on-campus groundborne vibration or groundborne noise levels
- Construction impacts resulting from an increase in on-campus ambient noise levels
- Construction impacts resulting from an increase in off-campus ambient noise levels

Traffic and Circulation

- Operational impacts resulting from an exceedence of the applicable LOS criteria for vehicle trips during the regular session at five intersections during the AM peak hour
- Operational impacts resulting from an exceedence of the applicable LOS criteria for vehicle trips during the twelve-week summer session at four intersections in the AM peak hour, 11 intersections in PM peak hour, and ten intersections in both the AM and PM peak hours
- Construction impacts resulting from truck trips

Although many project-related impacts resulting from implementation of the 2002 LRDP can be mitigated to a less-than-significant level, cumulative impacts would result from implementation of the 2002 LRDP in combination with the development of related projects in the area and projected regional growth. The impact areas for which there is a significant and unavoidable contribution of the 2002 LRDP to significant and adverse cumulative impacts include the following:

Refer to Volume 3, Chapter II (Text Changes)

Traffic

- Operational impacts resulting from exceedence of the applicable LOS criteria would make a significant and cumulatively considerable contribution to significant cumulative traffic impacts on local streets and intersections during both the regular and summer sessions
- Construction impacts resulting from exceedence of the applicable LOS criteria would make a significant and cumulatively considerable contribution to significant cumulative traffic impacts on local streets and intersections during both the regular and summer sessions

Air Quality

- Construction impacts resulting from air emissions would make a significant and cumulatively considerable contribution to significant cumulative regional air quality impacts from daily emissions of criteria pollutants

All other physical environmental impacts (project-specific and cumulative) are either less than significant or can be mitigated to a less-than-significant level.

Table 2-2 (Comparison of Alternatives to the Proposed Project), which follows Table 2-1, provides a summary comparison of post-mitigation project impacts with those of each alternative, assuming that feasible mitigation measures are also implemented for each alternative. This table presents the level of significance for impacts resulting from each project alternative, by issue area, as compared to the impacts of the 2002 LRDP (e.g., "LS (greater)" indicates that although the level of significance of the project alternative is "less than significant," the impacts are greater than the proposed project).

Table 2-1 Summary of Environmental Effects and Mitigation Measures

Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*		*Level of Significance After Mitigation*
		AESTHETICS		
Impact LRDP 4.1-1: Implementation of the 2002 LRDP would not have a substantial adverse effect on a scenic vista (focal views).	LS	PP 4.1-1(a)	The design process shall evaluate and incorporate, where appropriate, factors including, but not necessarily limited to, building mass and form, building proportion, roof profile, architectural detail and fenestration, the texture, color, and quality of building materials, focal views, pedestrian and vehicular circulation and access, and the landscape setting to ensure preservation and enhancement of the visual character and quality of the campus and the surrounding area. Landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) shall be integrated with development to encourage use through placement and design. (*This is identical to Land Use PP 4.8-1(a).)*	LS
		PP 4.1-1(b)	The Mildred E. Mathias Botanical Garden, Franklin D. Murphy Sculpture Garden, Dickson Plaza, Janss Steps, Stone Canyon Creek area, Meyerhoff Park, Wilson Plaza, Bruin Plaza, and the University Residence shall be maintained as open space preserves during the 2002 LRDP planning horizon.	
		PP 4.1-1(c)	New building projects shall be sited to ensure compatibility with existing uses and the height and massing of adjacent facilities. *(This is identical to Land Use PP 4.8-1(h).)*	
		PP 4.1-1(d)	The integrity of the campus historic core shall be maintained. *(This is identical to Cultural Resources PP 4.4-1(b) and Land Use PP 4.8-1(g).)*	

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Table 2-1 Summary of Environmental Effects and Mitigation Measures

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Impact LRDP 4.1-2: Implementation of the 2002 LRDP would not substantially degrade the visual character or quality of the campus and the immediately surrounding area.	LS	MM 4.1-2	In conjunction with CEQA documentation required for each project proposal under the 2002 LRDP, a tree replacement plan shall be prepared and implemented. The tree replacement plan for each project shall determine the appropriate number of replacement trees in relation to the specific project site characteristics. The tree replacement plan would ensure that the appropriate number of new trees is planted within the available site area so that each tree planted has sufficient space to grow and thrive. *(This is identical to Biological Resources MM 4.3-1(c).)*	LS
		PP 4.1-2(a)	Additions to, or expansions of, existing structures shall be designed to complement the existing architectural character of the buildings.	
		PP 4.1-2(b)	The architectural and landscape traditions that give the campus its unique character shall be respected and reinforced. *(This is identical to Land Use PP 4.8-1(f).)*	
		PP 4.1-2(c)	Development of the southern edge of the main campus shall be designed to enhance the campus interface with Westwood Village. *(This is identical to Land Use PP 4.8-1(b).)*	
		PP 4.1-2(d)	Projects proposed under 2002 LRDP shall include landscaping.	
		PP 4.1-2(e)	The western, northern, and eastern edges of the main campus shall include a landscaped buffer to complement the residential uses of the surrounding community and to provide an attractive perimeter that effectively screens and enhances future development. *(This is identical to Land Use PP 4.8-1(c).)*	
		PP 4.1-1(a), PP 4.1-1(b), PP 4.1-1(c), and PP 4.1-1 (d) also apply to Impact LRDP 4.1-2.		

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Impact LRDP 4.1-3: Implementation of the 2002 LRDP could create a new source of substantial light or glare on campus or in the vicinity that would adversely affect day or nighttime views in the area.	PS	MM 4.1-3(a) Design for specific projects shall provide for the use of textured nonreflective exterior surfaces and nonreflective glass. MM 4.1-3(b) All outdoor lighting shall be directed to the specific location intended for illumination (e.g., roads, walkways, or recreation fields) to limit stray light spillover onto adjacent residential areas. In addition, all lighting shall be shielded to minimize the production of glare and light spill onto adjacent uses. MM 4.1-3(c) Ingress and egress from parking areas shall be designed and situated so the vehicle headlights are shielded from adjacent uses. If necessary, walls or other light barriers will be provided. *PP 4.1-2(e) also applies to Impact LRDP 4.1-3.*	LS
		AIR QUALITY	
Impact LRDP 4.2-1: Implementation of the 2002 LRDP would not conflict with or obstruct implementation of the Air Quality Management Plan.	LS	PP 4.2-1(a) The campus shall continue to provide on-campus housing to continue the evolution of UCLA from a commuter to a residential campus. *(This is identical to Noise and Vibration PP 4.9-5(a) and Transportation/ Traffic PP 4.13-1(c).)* PP 4.2-1(b) The campus shall continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective. *(This is identical to Noise and Vibration PP 4.9-5(b) and Transportation/Traffic PP 4.13-1(d).)*	LS
Impact LRDP 4.2-2: The 2002 LRDP construction could contribute substantially to an existing or projected air quality violation.	S	MM 4.2-2(a) The campus shall require by contract specifications that construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes. MM 4.2-2(b) The campus shall encourage contractors to utilize alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) and low-emission diesel construction	SU

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			equipment to the extent that the equipment is readily available and cost effective.	
		PP 4.2-2(a)	The campus shall continue to implement dust control measures consistent with SCAQMD Rule 403—Fugitive Dust during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation: ▪ Apply water and/or approved nontoxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas that have been inactive for 10 or more days) ▪ Replace ground cover in disturbed areas as quickly as possible ▪ Enclose, cover, water twice daily, or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content ▪ Water active grading sites at least twice daily ▪ Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period ▪ All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code ▪ Sweep streets at the end of the day if visible soil material is carried over to adjacent roads ▪ Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip	

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Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*	*Level of Significance After Mitigation*
		▪ Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces ▪ Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads PP 4.2-2(b) The campus shall continue to require by contract specifications that construction equipment engines will be maintained in good condition and in proper tune per manufacturer's specification for the duration of construction. PP 4.2-2(c) The campus shall continue to require by contract specifications that construction operations rely on the campus' existing electricity infrastructure rather than electrical generators powered by internal combustion engines to the extent feasible. *No additional feasible mitigation is available.*	
Impact LRDP 4.2-3: Implementation of the 2002 LRDP would not result in daily operational emissions that contribute substantially to an existing or projected air quality violation during the regular session.	LS	PP 4.2-3 The campus shall continue to implement energy conservation measures (such as energy-efficient lighting and microprocessor-controlled HVAC equipment) to reduce the demand for electricity and natural gas. The energy conservation measures may be subject to modification as new technologies are developed or if current technologies become obsolete through replacement. *(This is identical to Utilities and Service Systems PP 4.14-10.)* *PP 4.2-1(a), PP 4.2-1(b), PP 4.2-2(a), PP 4.2-2(b), and PP 4.2-2(c) also apply to Impact 4.2-3.*	LS

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Impact LRDP 4.2-4: Implementation of the 2002 LRDP would result in daily operational emissions that contribute substantially to an existing or projected air quality violation during the twelve-week summer session.	S	MM 4.2-4 The TDM program will be extended through the student registration process to provide information concerning alternative transportation options to summer session students to increase awareness of, and participation in, alternative transportation programs during the summer session. *(This is identical to Noise and Vibration MM 4.9-6 and Transportation/Traffic MM 4.13-2(a).)* *PP 4.2-1(a), PP 4.2-1(b), PP 4.2-2(a), PP 4.2-2(b), PP 4.2-2(c), and PP 4.2-3 also apply to Impact 4.2-4.* *No additional feasible mitigation is available.*	SU
Impact LRDP 4.2-5: Implementation of the 2002 LRDP would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.	LS	*PP 4.2-1(a), PP 4.2-1(b), PP 4.2-3, and MM 4.2-4 apply to Impact LRDP 4.2-5.*	LS
Impact LRDP 4.2-6: Implementation of the 2002 LRDP would not expose sensitive receptors near roadway intersections to substantial pollutant concentrations.	LS	*None required.*	LS
Impact LRDP 4.2-7: Implementation of the 2002 LRDP would not expose sensitive receptors on or off campus to substantial pollutant concentrations due to campus-generated toxic air emissions.	LS	*None required.*	LS

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Impact LRDP 4.2-8: Implementation of the 2002 LRDP would not create objectionable odors affecting a substantial number of people.	LS	*None required.*		LS
		BIOLOGICAL RESOURCES		
Impact LRDP 4.3-1: Implementation of the 2002 LRDP could have a substantial adverse effect as a result of the direct loss of nesting habitat for resident and migratory avian species of special concern and raptors.	PS	MM 4.3-1(a)	Prior to the onset of construction activities that occur between March and mid-August, surveys for nesting special status avian species and raptors shall be conducted on the affected portion of the campus following USFWS and/or CDFG guidelines. If no active avian nests are identified on or within 250 feet of the construction site, no further mitigation is necessary.	LS
		MM 4.3-1(b)	If active nests for avian species of concern or raptor nests are found within the construction footprint or a 250-foot buffer zone, exterior construction activities shall be delayed within the construction footprint and buffer zone until the young have fledged or appropriate mitigation measures responding to the specific situation have been developed and implemented in consultation with CDFG.	
		MM 4.3-1(c)	In conjunction with CEQA documentation required for each project proposal under the 2002 LRDP, a tree replacement plan shall be prepared and implemented. The tree replacement plan for each project shall determine the appropriate number of replacement trees in relation to the specific project site characteristics. The tree replacement plan would ensure that the appropriate number of new trees is planted within the available site area so that each tree planted has sufficient space to grow and thrive. *(This is identical to Aesthetics MM 4.1-2.)*	
		PP 4.3-1(a)	Mature trees to be retained and protected in place during construction, shall be fenced at the drip-line, and maintained by the contractor in accordance with landscape specifications contained in the construction contract.	

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		PP 4.3-1(b) Trees shall be examined by an arborist and trimmed, if appropriate, prior to the start of construction. PP 4.3-1(c) Construction contract specifications shall include the provision for temporary irrigation/watering and feeding of these trees during construction, as recommended by the designated arborist. PP 4.3-1(d) Construction contract specifications shall require that no building material, parked equipment, or vehicles shall be stored within the fence line. PP 4.3-1(e) Examination of these trees by an arborist shall be performed monthly during construction to ensure that they are being adequately maintained.	
Impact LRDP 4.3-2: The 2002 LRDP construction could interfere with the movement of resident and migratory avian species of special concern and raptors.	PS	*MM 4.3-1(a), MM 4.3-1(b), MM 4.3-1(c), PP 4.3-1(a), PP 4.3-1(b), PP 4.3-1(c), PP 4.3-1(d) and PP 4.3-1(e) also apply to Impact 4.3-2.*	LS
		CULTURAL RESOURCES	
Impact LRDP 4.4-1: Implementation of the 2002 LRDP would not result in a substantial adverse change in the significance of structures that have been designated as eligible or potentially eligible for listing on the NRHP or CRHR.	LS	PP 4.4-1(a) The campus shall continue to implement all modifications to historic structures in compliance with the Secretary of the Interior's Standards for Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Weeks and Grimmer 1995). PP 4.4-1(b) The integrity of the campus historic core shall be maintained *(This is identical to Aesthetics PP 4.1-1(d) and Land Use PP 4.8-1(g).)*	LS
Impact LRDP 4.4-2: Implementation of the 2002 LRDP would not result in the demolition of historic or potentially historic structures.	LS	*PP 4.4-1(b) also applies to Impact 4.4-2.*	LS

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Impact LRDP 4.4-3: The 2002 LRDP construction would not cause a substantial adverse change in the significance of an archaeological resource.	LS	MM 4.4-3(a)	Prior to site preparation or grading activities, construction personnel shall be informed of the potential for encountering unique archaeological resources and taught how to identify these resources if encountered. This shall include the provision of written materials to familiarize personnel with the range of resources that might be expected, the type of activities that may result in impacts, and the legal framework of cultural resources protection. All construction personnel shall be instructed to stop work in the vicinity of a potential discovery until a qualified, non-University archaeologist assesses the significance of the find and implements appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of archaeological resources is prohibited.	LS
		MM 4.4-3(b)	A qualified archaeologist shall first determine whether an archaeological resource uncovered during construction is a "unique archaeological resource" under Public Resources Code Section 21083.2(g). If the archaeological resource is determined to be a "unique archaeological resource," the archaeologist shall formulate a mitigation plan in consultation with the campus that satisfies the requirements of Section 21083.2. If the archaeologist determines that the archaeological resource is not a unique archaeological resource, the archaeologist may record the site and submit the recordation form to the California Historic Resources Information System South Central Coastal Information Center. The archaeologist shall prepare a report of the results of any study prepared as part of a mitigation plan, following accepted professional practice. Copies of the report shall be submitted to the University and to the California Historic Resources Information System South Central Coastal Information Center.	

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Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*	*Level of Significance After Mitigation*
Impact LRDP 4.4-4: The 2002 LRDP construction could directly or indirectly result in damage to, or the destruction of, unique paleontological resources on site or unique geologic features.	PS	MM 4.4-4(a) Prior to site preparation or grading activities, construction personnel shall be informed of the potential for encountering paleontological resources and taught how to identify these resources if encountered. This shall include the provision of written materials to familiarize personnel with the range of resources that might be expected, the type of activities that may result in impacts, and the legal framework of cultural resources protection. All construction personnel shall be instructed to stop work in the vicinity of a potential discovery until a qualified, non-University paleontologist assesses the significance of the find and implements appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of paleontological resources is prohibited. MM 4.4-4(b) A qualified paleontologist shall first determine whether a paleontological resource uncovered during construction meets the definition of a "unique archaeological resource" under Public Resources Code Section 21083.2(g). If the paleontological resource is determined to be a "unique archaeological resource," the paleontologist shall formulate a mitigation plan in consultation with the campus that satisfies the requirements of Section 21083.2. If the paleontologist determines that the paleontological resource is not a unique resource, the paleontologist may record the site and submit the recordation form to the Natural History Museum of Los Angeles County. The paleontologist shall prepare a report of the results of any study prepared as part of a mitigation plan, following accepted professional practice. Copies of the report shall be submitted to the University and to the Natural History Museum of Los Angeles County.	LS

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Impact LRDP 4.4-5: The 2002 LRDP construction would not result in the disturbance of human remains, including those interred outside of formal cemeteries.	LS	PP 4.4-5	In the event of the discovery of a burial, human bone, or suspected human bone, all excavation or grading in the vicinity of the find shall halt immediately, the area of the find shall be protected, and the University immediately shall notify the Los Angeles County Coroner of the find and comply with the provisions of P.R.C. Section 5097 with respect to Native American involvement, burial treatment, and re-burial, if necessary.	LS
			GEOLOGY AND SOILS	
Impact LRDP 4.5-1: Implementation of the 2002 LRDP would not expose people and/or structures to potentially substantial adverse effects resulting from rupture of a known earthquake fault, strong seismic groundshaking, seismic-related ground failure (i.e., liquefaction), or landsliding.	LS	PP 4.5-1(a)	During project-specific building design, a site-specific geotechnical study shall be conducted under the direct supervision of a California Registered Engineering Geologist or licensed geotechnical engineer to assess detailed seismic, geological, soil, and groundwater conditions at each construction site and develop recommendations to prevent or abate any identified hazards. The study shall follow applicable recommendations of CDMG Special Publication 117 and shall include, but not necessarily be limited to ▪ Determination of the locations of any suspected fault traces and anticipated ground acceleration at the building site ▪ Potential for displacement caused by seismically induced shaking, fault/ground surface rupture, liquefaction, differential soil settlement, expansive and compressible soils, landsliding, or other earth movements or soil constraints ▪ Evaluation of depth to groundwater The campus shall incorporate into project design the recommendations for the prevention and abatement of any identified hazards, including landslides and liquefaction, as well as for groundwater dewatering, as necessary, to ensure soil stability during construction and operation of the project.	LS
		PP 4.5-1(b)	The campus shall continue to implement its current seismic upgrade program.	

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		PP 4.5-1(c) The campus shall continue to comply with the University Policy on Seismic Safety adopted on January 17, 1995 or with any subsequent revision to the policy that provides an equivalent or higher level of protection with respect to seismic hazards. PP 4.5-1(d) Development projects under the 2002 LRDP shall continue to be subject to structural peer review.	
Impact LRDP 4.5-2: The 2002 LRDP construction and operation would not result in substantial soil erosion or the loss of topsoil.	LS	*PP 4.2-2(a) also applies to Impact LRDP 4.5-2.*	LS
Impact LRDP 4.5-3: The 2002 LRDP construction in areas underlain by soils of varying stability would not subject people and structures to hazards associated with landsliding, lateral spreading, subsidence, liquefaction, collapse, or differential settlement.	LS	*PP 4.5-1(a), PP 4.5-1(c), and PP 4.5-1(d) also apply to Impact LRDP 4.5-3.*	LS
Impact LRDP 4.5-4: Implementation of the 2002 LRDP would not result in construction of facilities on expansive soils, and would not create a substantial risk to people and structures.	LS	*PP 4.5-1(a) also applies to Impact LRDP 4.5-4.*	LS

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		HAZARDS AND HAZARDOUS MATERIALS		
Impact LRDP 4.6-1: Implementation of the 2002 LRDP would not expose campus occupants or the nearby public to a significant hazard due to the routine transport, use, disposal, or storage of hazardous materials (including chemical, radioactive, and biohazardous waste).	LS	PP 4.6-1	The campus shall continue to implement the same (or equivalent) health and safety plans, programs, practices, and procedures related to the use, storage, disposal, or transportation of hazardous materials during the 2002 LRDP planning horizon, including, but not necessarily limited to, the Business Plan, Hazardous Materials Management Program, Hazard Communication Program, Injury and Illness Prevention Program, Chemical Exposure Monitoring Program, Asbestos Management Program, Respiratory Protection Program, Risk Management Prevention Plan for the use and storage of ammonia in the ESF, EH&S procedures for decommissioning and demolishing buildings that may contain hazardous materials, and the Broadscope Radioactive Materials License. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.	LS
Impact LRDP 4.6-2: Implementation of the 2002 LRDP would not expose construction workers and campus occupants to a significant hazard through the renovation or demolition of buildings or relocation of underground utilities that contain hazardous materials.	LS	*PP 4.6-1 also applies to Impact LRDP 4.6-2.*		LS
Impact LRDP 4.6-3: Implementation of the 2002 LRDP would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	LS	*PP 4.6-1 also applies to Impact LRDP 4.6-3.*		LS

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Impact LRDP 4.6-4: Implementation of the 2002 LRDP would not create a significant risk of exposure of campus occupants and construction workers to contaminated soil or groundwater.	LS	PP 4.6-4	While not expected to occur on-campus, if contaminated soil and/or groundwater is encountered during the removal of on-site debris or during excavation and/or grading activities, the construction contractor(s) shall stop work and immediately inform the EH&S. An on-site assessment shall be conducted to determine if the discovered materials pose a significant risk to the public or construction workers. If the materials are determined to pose such a risk, a remediation plan shall be prepared and submitted to the EH&S to comply with all federal and State regulations necessary to clean and/or remove the contaminated soil and/or groundwater. Soil remediation methods could include, but are not necessarily limited to, excavation and on-site treatment, excavation and off-site treatment or disposal, and/or treatment without excavation. Remediation alternatives for cleanup of contaminated groundwater could include, but are not necessarily limited to, on-site treatment, extraction and off-site treatment, and/or disposal. The construction schedule shall be modified or delayed to ensure that construction will not inhibit remediation activities and will not expose the public or construction workers to significant risks associated with hazardous conditions.	LS
Impact LRDP 4.6-5: Implementation of the 2002 LDRP would not result in hazardous emissions but could require the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	LS	*PP 4.6-1 also applies to Impact LRDP 4.6-5.*		LS

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Impact LRDP 4.6-6: Implementation of the 2002 LDRP would not result in construction of facilities on sites containing hazardous materials, and thus would not create a significant hazard to the public or environment.	LS	*PP 4.6-1 also applies to Impact LRDP 4.6-6.*	LS
Impact LRDP 4.6-7: Implementation of the 2002 LRDP would not result in a safety hazard for an increased number of people residing or working on campus due to its proximity to the UCLA Medical Center helipad.	LS	*None required.*	LS
Impact LRDP 4.6-8: Implementation of the 2002 LRDP would not impair implementation of, or physically interfere with, an adopted emergency response or emergency evacuation plan.	LS	PP 4.6-8(a) To the extent feasible, the campus shall maintain at least one unobstructed lane in both directions on campus roadways. At any time only a single lane is available, the campus shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway segment, the campus shall provide appropriate signage indicating alternative routes. *(This is identical to Traffic/Transportation PP 4.13-6.)* PP 4.6-8(b) To ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, UCLA shall consult with the UCPD, EH&S, and the LAFD to disclose temporary lane or roadway closures and alternative travel routes. *(This is identical to Traffic/Transportation PP 4.13-9).*	LS
		HYDROLOGY AND WATER QUALITY	
Impact LRDP 4.7-1: Implementation of the 2002 LRDP would not violate existing water quality standards or waste discharge requirements.	LS	*None required.*	LS

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Impact LRDP 4.7-2: Implementation of the 2002 LRDP would not substantially deplete groundwater supplies or interfere with groundwater recharge.	LS	*None required.*		LS
Impact LRDP 4.7-3: Implementation of the 2002 LRDP would not substantially alter site drainage patterns and would not result in substantial erosion or siltation on or off site.	LS	*None required.*		LS
Impact LRDP 4.7-4: Implementation of the 2002 LRDP would not substantially alter site drainage patterns or substantially increase the rate or amount of surface runoff and would not result in flooding either on or off site.	LS	*None required.*		LS
Impact LRDP 4.7-5: Implementation of the 2002 LRDP would not result in runoff that exceeds the capacity of existing storm drain systems or provides substantial additional sources of polluted runoff.	LS	PP 4.7-5	Project design shall include measures to upgrade and expand campus storm drain capacity where necessary. Design of future projects will include measures to reduce runoff, including the provision of permeable landscaped areas adjacent to structures to absorb runoff and the use of pervious or semi-pervious paving materials.	LS
Impact LRDP 4.7-6: Implementation of the 2002 LRDP would not require the construction of new stormwater conveyance systems or the expansion of existing stormwater conveyance systems.	LS	*PP 4.7-5 also applies to Impact LRDP 4.7-6.*		LS
Impact LRDP 4.7-7: Implementation of the 2002 LRDP would not otherwise substantially degrade water quality.	LS	*None required.*		LS

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Table 2-1 Summary of Environmental Effects and Mitigation Measures			
Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*	*Level of Significance After Mitigation*
Impact LRDP 4.7-8: Implementation of the 2002 LRDP would not place housing within a 100-year flood hazard area.	LS	*None required.*	LS
Impact LRDP 4.7-9: Implementation of the 2002 LRDP would not place structures within a 100-year flood hazard area, which would impede or redirect flood flows.	LS	*None required.*	LS
Impact LRDP 4.7-10: Implementation of the 2002 LRDP would not expose people or structures to a significant risk involving flooding due to the failure of Stone Canyon Reservoir.	LS	*None required.*	LS
Impact LRDP 4.7-11: Implementation of the 2002 LRDP would not expose people or structures to a significant risk of mudflows.	LS	*None required.*	LS
		LAND USE AND PLANNING	
Impact LRDP 4.8-1: Implementation of the 2002 LRDP would not result in potential incompatibilities between campus development and adjacent land uses.	LS	PP 4.8-1(a) The design process shall evaluate and incorporate, where appropriate, factors including, but not necessarily limited to, building mass and form, building proportion, roof profile, architectural detail and fenestration, the texture, color, and quality of building materials, focal views, pedestrian and vehicular circulation and access, and the landscape setting to ensure preservation and enhancement of the visual character and quality of the campus and the surrounding area. Landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) shall be integrated with development to encourage use through placement and design. *(This is identical to Aesthetics PP 4.1-1(a).)*	LS

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		PP 4.8-1(b)	Development of the southern edge of the main campus shall be designed to enhance the campus interface with Westwood Village. *(This is identical to Aesthetics PP 4.1-2(c).)*	
		PP 4.8-1(c)	The western, northern, and eastern edges of the main campus shall include a landscaped buffer to complement the residential uses of the surrounding community and to provide an attractive perimeter that effectively screens and enhances future development. *(This is identical to Aesthetics PP 4.1-2(e).)*	
		PP 4.8-1(d)	The existing recreational fields in the Central zone of campus shall be maintained and will continue to provide a buffer between campus development and the residential uses north of Sunset Boulevard.	
		PP 4.8-1(e)	Infill development of the campus shall be continued, which reduces vehicle miles traveled and energy consumption.	
		PP 4.8-1(f)	The architectural and landscape traditions that give the campus its unique character shall be respected and reinforced. *(This is identical to Aesthetics PP 4.1-2(b).)*	
		PP 4.8-1(g)	The integrity of the campus historic core shall be maintained. *(This is identical to Aesthetics PP 4.1-1(d) and Cultural PP 4.4-1(b).)*	
		PP 4.8-1(h)	New building projects shall be sited to ensure compatibility with existing uses and the height and massing of adjacent facilities. *(This is identical to Aesthetics PP 4.1-1(c).)*	
		PP 4.8-1(i)	Facilities shall be sited and designed to enhance spatial development of the campus while maximizing use of limited land resources.	

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Impact(s)	Level of Significance Prior to Mitigation	2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures	Level of Significance After Mitigation
Impact LRDP 4.8-2: Implementation of the 2002 LRDP would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.	LS	*All relevant 2002 LRDP MMs and PPs that ensure consistency with applicable land use plans, policies, or regulations shall be applied during the LRDP planning horizon.*	LS
		NOISE	
Impact LRDP 4.9-1: Implementation of the 2002 LRDP would not expose new on-campus student residential uses to noise levels in excess of the State's 45 dBA CNEL interior noise standard.	LS	PP 4.9-1 The campus shall continue to evaluate ambient noise conditions when placing new student housing near regular sources of noise such as roadways and stationary equipment and design the new buildings to ensure that interior noise levels would be less than 45 dBA CNEL.	LS
Impact LRDP 4.9-2: The 2002 LRDP construction could generate and expose persons on campus to excessive groundborne vibration or groundborne noise levels.	S	PP 4.9-2 The campus shall continue to notify research facilities located near approved construction sites of the planned schedule of vibration causing activities so that the researchers can take necessary precautionary measures to avoid negative effects to their research. *No feasible mitigation is available.*	SU
Impact LRDP 4.9-3: The 2002 LRDP construction would not generate and expose persons off campus to excessive groundborne vibration or groundborne noise levels.	LS	*None required.*	LS
Impact LRDP 4.9-4: Implementation of the 2002 LRDP would not generate and expose persons on or off campus to excessive groundborne vibration or groundborne noise levels.	LS	*None required.*	LS

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Table 2-1 Summary of Environmental Effects and Mitigation Measures				
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Impact LRDP 4.9-5: Implementation of the 2002 LRDP would generate increased local traffic volumes, but would not cause a substantial permanent on- or off-campus increase in ambient roadway noise levels in the project vicinity during the regular session.	LS	PP 4.9-5(a)	The campus shall continue to provide on-campus housing to continue the evolution of UCLA from a commuter to a residential campus. *(This is identical to Air Quality PP 4.2-1(a) and Transportation/Traffic PP 4.13-1(c).)*	LS
		PP 4.9-5(b)	The campus shall continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective. *(This is identical to Air Quality PP 4.2-1(b) and Transportation/Traffic PP 4.13-1(d).)*	
Impact LRDP 4.9-6: Implementation of the 2002 LRDP would generate increased local traffic volumes, but would not cause a substantial permanent on- or off-campus increase in ambient roadway noise levels during the summer session.	LS	MM 4.9-6	The TDM program will be extended through the student registration process to provide information concerning alternative transportation options to summer session students to increase awareness of, and participation in, alternative transportation programs during the summer session. *(This is identical to Air Quality MM 4.2-4 and Transportation/Traffic MM 4.13-2(a).)*	LS
		PP 4.9-5(a) and PP 4.9-5(b) also apply to Impact LRDP 4.9-6.		
Impact LRDP 4.9-7: Implementation of the 2002 LRDP could add new stationary sources of noise, but would not cause a substantial permanent on- or off-campus increase in ambient noise levels.	LS	PP 4.9-7(a)	The campus shall continue to shield all new stationary sources of noise that would be located in close proximity to noise-sensitive buildings and uses.	LS
		PP 4.9-7(b)	The campus shall continue to provide a landscaped buffer along the western, northern, and eastern edges of the main campus in order to maximize the distance between the roadways and new buildings and provide an acoustically soft environment. At a minimum, this environment can be provided by planting grass and other low landscaping.	

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Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*		*Level of Significance After Mitigation*
Impact LRDP 4.9-8: The 2002 LRDP construction would result in substantial temporary or periodic increases in ambient noise levels at on-campus locations.	S	PP 4.9-8(a)	To the extent feasible, construction activities shall be limited to 7:00 A.M. to 9:00 P.M. Monday through Friday, 8:00 A.M. to 6:00 P.M. on Saturday, and no construction on Sunday and national holidays, as appropriate, in order to minimize disruption to area residences surrounding the campus and to on-campus uses that are sensitive to noise.	SU
		PP 4.9-8(b)	The campus shall continue to require by contract specifications that construction equipment be required to be muffled or otherwise shielded. Contracts shall specify that engine-driven equipment be fitted with appropriate noise mufflers.	
		PP 4.9-8(c)	The campus shall continue to require that stationary construction equipment material and vehicle staging be placed to direct noise away from sensitive receptors.	
		PP 4.9-8(d)	The campus shall continue to conduct regular meetings with on-campus constituents to provide advance notice of construction activities in order to coordinate these activities with the academic calendar, scheduled events, and other situations, as needed.	
		No feasible mitigation is available.		
Impact LRDP 4.9-9: The 2002 LRDP construction would result in substantial temporary or periodic increases in ambient noise levels at off-campus locations.	S	PP 4.9-9	The campus shall continue to conduct meetings, as needed, with off-campus constituents that are affected by campus construction to provide advanced notice of construction activities and ensure that the mutual needs of the particular construction project and of those impacted by construction noise are met, to the extent feasible.	SU
		PP 4.9-8(a), PP 4.9-8(b), and PP 4.9-8(c) also apply to Impact LRDP 4.9-9.		
		No feasible mitigation is available.		

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Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*	*Level of Significance After Mitigation*
Impact LRDP 4.9-10: Implementation of the 2002 LRDP would not result in substantial temporary or periodic increases in ambient noise levels due to special events.	LS	*None required.*	LS
Impact LRDP 4.9-11: Implementation of the 2002 LRDP would not expose additional students, faculty, and visitors within the UCLA campus to excessive noise levels generated by helicopter operations.	LS	*None required.*	LS
POPULATION AND HOUSING			
Impact LRDP 4.10-1: Implementation of the 2002 LRDP would accommodate population growth on the UCLA campus.	LS	*None required.*	LS
Impact LRDP 4.10-2: Implementation of the 2002 LRDP would not result in a substantial increase in demand for housing.	LS	*None required.*	LS
PUBLIC SERVICES			
Impact LRDP 4.11-1: Implementation of the 2002 LRDP could increase the demand for fire protection services, but would not require the construction of new or physically altered facilities to accommodate the increased demand and maintain acceptable response times and fire flows.	LS	PP 4.11-1 Fire alarm connections to the University Police Command Center shall continue to be provided in all new and renovated buildings to provide immediate location information to the Los Angeles Fire Department to reduce response times in emergency situations.	LS

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Impact LRDP 4.11-2: Implementation of the 2002 LRDP could increase the demand for police services, but would not require new or physically altered facilities to maintain acceptable service ratios for police protection services.	LS	PP 4.11-2(a) Police staffing levels and equipment needs shall continue to be assessed on an ongoing basis as individual development projects are proposed and on an annual basis during the campus budgeting process to ensure that the appropriate service levels will be maintained to protect an increased campus population and an increased level of development. PP 4.11-2(b) Annual meetings shall continue to be attended by the Director of UCLA Housing and the UCPD to evaluate the adequacy of police protection service for University-owned housing, assess institutional priorities and budgetary requirements, and identify and implement appropriate actions to ensure the continued adequacy of police protection services for resident students. *PP 4.11-1 also applies to Impact LRDP 4.11-2.*	LS
Impact LRDP 4.11-3: Implementation of the 2002 LRDP would not require new or physically altered facilities to accommodate additional students in LAUSD schools.	LS	*None required.*	LS
		RECREATION	
Impact LRDP 4.12-1: Implementation of the 2002 LRDP would increase the campus population but would not result in the increased use of parks and recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.	LS	PP 4.12-1(a) The campus shall continue to provide, operate, and maintain recreational facilities for students, faculty, and staff on campus. PP 4.12-1(b) The campus shall continue to integrate landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) with development to encourage use through placement and design.	LS

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Table 2-1	Summary of Environmental Effects and Mitigation Measures		
Impact(s)	***Level of Significance Prior to Mitigation***	***2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures***	***Level of Significance After Mitigation***
Impact LRDP 4.12-2: The 2002 LRDP would include recreational facilities as part of the proposed Northwest Housing Infill Project, the construction of which would not have an adverse physical effect on the environment.	LS	*All relevant 2002 LRDP MMs and PPs shall be applied during construction activities.* MM 4.13-0 The campus shall develop a Long Range Bicycle plan.	LS
		TRANSPORTATION AND TRAFFIC	
Impact LRDP 4.13-1: Implementation of the 2002 LRDP would result in additional vehicular trips during the regular session, which would result in a substantial degradation in intersection levels of service.	S	MM 4.13-1 The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Montana Avenue/Gayley Avenue and Veteran Avenue. PP 4.13-1(a) The campus shall continue to maintain the 1990 LRDP vehicle trip cap of 139,500 average daily trips. PP 4.13-1(b) The campus shall continue to maintain the 1990 LRDP parking cap of 25,169 spaces. PP 4.13-1(c) The campus shall continue to provide on-campus housing to continue the evolution of UCLA from a commuter to a residential campus. *(This is identical to Air Quality PP 4.2-1(a) and Noise and Vibration PP 4.9-5(a).)* PP 4.13-1(d) The campus shall continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective. *(This is identical to Air Quality PP 4.2-1(b) and Noise and Vibration 4.9-5(b).)* *No additional feasible mitigation is available.*	SU

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Table 2-1	Summary of Environmental Effects and Mitigation Measures			
Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*		*Level of Significance After Mitigation*
Impact LRDP 4.13-2: Implementation of the 2002 LRDP would result in additional vehicular trips during the twelve-week period of summer instruction, which would result in a substantial degradation in intersection levels of service.	S	MM 4.13-2(a)	The TDM program will be extended through the student registration process to provide information concerning alternative transportation options to summer session students to increase awareness of, and participation in, alternative transportation programs during the summer session. *(This is identical to Air Quality MM 4.2-4 and Noise and Vibration MM 4.9-6.)*	SU
		MM 4.13-2(b)	The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Montana Avenue and Sepulveda Boulevard.	
		MM 4.13-2(c)	The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Strathmore Place and Gayley Avenue.	
		MM 4.13-2(d)	The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Weyburn Avenue and Gayley Avenue.	
		MM 4.13-2(e)	The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Kinross Avenue and Westwood Boulevard.	
		MM 4.13-2(f)	The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Wilshire Boulevard and San Vicente Boulevard.	
		MM 4.13-2(g)	The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Wilshire Boulevard and Gayley Avenue.	
		MM 4.13-2(h)	The campus shall provide fair share funding to the City of Los Angeles for restriping of Malcolm Avenue at the intersection of Wilshire Boulevard to provide dedicated northbound and southbound right-turn lanes.	
		MM 4.13-2(i)	The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Wilshire Boulevard and Beverly Glen Boulevard.	

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Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*	*Level of Significance After Mitigation*
		MM 4.13-2(j) The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Ohio Avenue and Sepulveda Boulevard. MM 4.13-2(k) The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Ohio Avenue and Veteran Avenue. MM 4.13-2(l) If the City of Los Angeles elects not to install ATCS at the intersection of Ohio Avenue and Veteran Avenue, the campus shall provide fair share funding to the City of Los Angeles for restriping of Veteran Avenue at the intersection of Ohio Avenue to provide dedicated northbound and southbound right-turn lanes. MM 4.13-2(m) The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Santa Monica Boulevard (North) and Veteran Avenue. MM 4.13-2(n) The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Santa Monica Boulevard (North) and Westwood Boulevard. MM 4.13-2(o) The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Beverly Glen Boulevard and Greendale Drive. MM 4.13-2(p) If the City of Los Angeles elects not to install ATCS at the intersection of Beverly Glen Boulevard and Greendale Drive, the campus shall provide fair share funding for restriping the west side of Beverly Glen Boulevard by the City of Los Angeles to provide dedicated northbound and southbound right-turn lanes. *PP 4.13-1(a), PP 4.13-1(b), PP 4.13-1(c) PP 4.13-1(d) and MM 4.13-1 also apply to Impact LRDP 4.13-2.* *No additional feasible mitigation is available.*	

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Impact(s)	*Level of Significance Prior to Mitigation*	*2002 LRDP EIR Mitigation Measure(s) or Campus Programs, Practices, and Procedures*		*Level of Significance After Mitigation*
Impact LRDP 4.13-3: The 2002 LRDP construction would result in the generation of construction-related vehicle trips, which would impact traffic conditions along roadway segments and at individual intersections.	S	PP 4.13-3	UCLA Capital Programs will assess construction schedules of major projects to determine the potential for overlapping construction activities to result in periods of heavy construction vehicle traffic on individual roadway segments, and adjust construction schedules, work hours, or access routes to the extent feasible to reduce construction-related traffic congestion. *No feasible mitigation is available.*	SU
Impact LRDP 4.13-4: Implementation of the 2002 LRDP would result in additional vehicular traffic volumes, but would not exceed established service levels on roadways designated by the Los Angeles Congestion Management Program.	LS	*None required.*		LS
Impact LRDP 4.13-5: Implementation of the 2002 LRDP would not substantially increase hazards due to design features or incompatible uses.	LS	*None required.*		LS
Impact LRDP 4.13-6: The 2002 LRDP construction would not substantially increase vehicular hazards due to closure of traffic lanes or roadway segments.	LS	PP 4.13-6	To the extent feasible, the campus shall maintain at least one unobstructed lane in both directions on campus roadways. At any time only a single lane is available, the campus shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway segment, the campus shall provide appropriate signage indicating alternative routes. *(This is identical to Hazards and Hazardous Materials PP 4.6-8(a).)*	LS
Impact LRDP 4.13-7: The 2002 LRDP construction would not substantially increase pedestrian hazards due to closure of sidewalks or paths.	LS	PP 4.13-7	For any construction-related closure of pedestrian routes, the campus shall provide appropriate signage indicating alternative routes, and provide curb cuts and street crossings to assure alternate routes are accessible.	LS

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Impact LRDP 4.13-8: Implementation of the 2002 LRDP would not result in inadequate emergency access.	LS	*None required.*	LS
Impact LRDP 4.13-9: The 2002 LRDP construction would not result in inadequate emergency access.	LS	PP 4.13-9 To ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, UCLA shall consult with the UCPD, EH&S, and the LAFD to disclose temporary lane or roadway closures and alternative travel routes. *(This is identical to Hazards and Hazardous Materials PP 4.6-8(b).)*	LS
Impact LRDP 4.13-10: Implementation of the 2002 LRDP would not result in inadequate parking capacity during the regular session.	LS	*PP 4.9-5(b) and PP 4.13-1(b) also apply to Impact LRDP 4.13-10.*	LS
Impact LRDP 4.13-11: Implementation of the 2002 LRDP would not result in inadequate parking capacity during the summer session.	LS	*MM 4.13-2(a) also applies to Impact LRDP 4.13-11.*	LS
Impact LRDP 4.13-12: The 2002 LRDP construction could result in temporary elimination of on-campus parking spaces and could require additional temporary parking for construction workers.	PS	MM 4.13-12 To the extent that construction worker parking demand exceeds historical levels or available supply, off-site construction worker parking shall be provided with shuttle service to the remote parking location.	LS
Impact LRDP 4.13-13: Implementation of the 2002 LRDP would not conflict with adopted policies, plans, or programs supporting alternative transportation.	LS	*PP 4.13-1(c), PP 4.13-1(d) and MM 4.13-2(a) also apply to Impact 4.13-13.*	LS
Impact LRDP 4.13-14: Implementation of the 2002 LRDP would not increase demand for public transit during the regular session.	LS	*None required.*	LS

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Impact LRDP 4.13-15: Implementation of the 2002 LRDP could slightly increase demand for public transit during the summer session, but would not require an increase in transit service.	LS	*None required.*	LS
		UTILITIES AND SERVICE SYSTEMS	
Impact LRDP 4.14-1: Implementation of the 2002 LRDP would not require or result in the construction of new or expanded water treatment facilities, the construction of which could cause significant environmental effects.	LS	*None required.*	LS
Impact LRDP 4.14-2: Implementation of the 2002 LRDP would generate an additional demand for water, but would not require water supplies in excess of existing entitlements and resources or result in the need for new or expanded entitlements.	LS	PP 4.14-2(a) New facilities and renovations (except for patient care facilities in the Medical Center) shall be equipped with low-flow showers, toilets, and urinals. PP 4.14-2(b) Measures to reduce landscaping irrigation needs shall be used, such as automatic timing systems to apply irrigation water during times of the day when evaporation rates are low, installing drip irrigation systems, using mulch for landscaping, subscribing to the California Irrigation Management Information System Network for current information on weather and evaporation rates, and incorporating drought-resistant plants as appropriate. PP 4.14-2(c) The campus shall promptly detect and repair leaks in water and irrigation pipes. PP 4.14-2(d) The campus shall minimize the use of water to clean sidewalks, walkways, driveways, and parking areas. PP 4.14-2(e) The campus shall avoid serving water at UCLA food service facilities except upon request.	LS

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		PP 4.14-2(f) The campus shall provide ongoing water treatment programs for campus cooling equipment by adding biodegradable chemicals to achieve reductions in water usage. PP 4.14-2(g) The campus shall educate the campus community on the importance of water conservation measures.	
Impact LRDP 4.14-3: Implementation of the 2002 LRDP would not generate solid waste that exceeds the permitted capacity of landfills serving the campus.	LS	PP 4.14-3 The campus shall continue to implement a solid waste reduction and recycling program designed to limit the total quantity of campus solid waste that is disposed of in landfills during the LRDP plan horizon.	LS
Impact LRDP 4.14-4: Implementation of the 2002 LRDP would comply with all applicable federal, State, and local statutes and regulations related to solid waste.	LS	*PP 4.14-3 also applies to Impact LRDP 4.14-4.*	LS
Impact LRDP 4.14-5: Implementation of the 2002 LRDP would not exceed wastewater treatment requirements of the Regional Water Quality Control Board.	LS	*None required.*	LS
Impact LRDP 4.14-6: Implementation of the 2002 LRDP could require the construction of new or expanded wastewater conveyance systems, the construction of which would not cause significant environmental effects.	LS	PP 4.14-6 As part of the design process for proposed projects, an evaluation of the on-campus sewer conveyance capacity shall be undertaken, and improvements provided if necessary in order to ensure that connections are adequate and capacity is available to accommodate estimated flows. *In addition, all relevant 2002 LRDP MMs and PPs shall be applied during construction activities.*	LS

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Impact LRDP 4.14-7: Implementation of the 2002 LRDP would not increase wastewater generation such that treatment facilities would be inadequate to serve the project's projected demand in addition to the provider's existing commitments.	LS	*PP 4.14-2(a), PP 4.14-2(b), PP 4.14-2(c) PP 4.14-2(d) PP 4.14-2(e) PP 4.14-2(f) and PP 4.14-2(g) also apply to Impact LRDP 4.14-7.*	LS
Impact LRDP 4.14-8: Implementation of the 2002 LRDP could increase the demand for electricity, but would not require or result in the construction of new energy production or transmission facilities, the construction of which could cause a significant environmental impact.	LS	*None required.*	LS
Impact LRDP 4.14-9: Implementation of the 2002 LRDP could increase the demand for natural gas, but would not require or result in the construction of new gas production or transmission facilities, the construction of which could cause a significant environmental impact.	LS	*None required.*	LS
Impact LRDP 4.14-10: Implementation of the 2002 LRDP would not result in the wasteful or inefficient use of energy by UCLA.	LS	PP 4.14-10 The campus shall continue to implement energy conservation measures (such as energy-efficient lighting and microprocessor-controlled HVAC equipment) to reduce the demand for electricity and natural gas. The energy conservation measures may be subject to modification as new technologies are developed or if current technologies become obsolete through replacement. *(This is identical to Air Quality PP 4.2-3.)*	LS

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Table 2-2 Comparison of Alternatives to the Proposed Project

Impact Area	*Alternative 1 No Project/ Continued Implementation of the 1990 LRDP Through 2010–11*	*Alternative 2 Off-Site Alternative*	*Alternative 3 Regular Session Growth Only*
Aesthetics	LS (Same)	LS (Greater)	LS (Same)
Air Quality—Construction	SU (Same)	LS (Greater)	SU (Same)
Air Quality—Operation	SU (Less)	SU (Same)	SU (Less)
Biological Resources	LS (Same)	LS (Greater)	LS (Same)
Cultural Resources	LS (Same)	LS (Greater)	LS (Same)
Geology and Soils	LS (Same)	LS (Greater)	LS (Same)
Hazards and Hazardous Materials	LS (Same)	LS (Same)	LS (Same)
Hydrology and Water Quality	LS (Same)	LS (Greater)	LS (Same)
Land Use and Planning	LS (Same)	LS (Greater)	LS (Same)
Noise—Construction	SU (Same)	SU (Greater)	SU (Same)
Noise—Operation	LS (Less)	LS (Same)	LS (Same)
Population and Housing	LS (Same)	LS (Same)	LS (Greater)
Public Services	LS (Less)	LS (Greater)	LS (Same)
Recreation	LS (Less)	LS (Same)	LS (Same)
Transportation—Construction	SU (Same)	SU (Less)	SU (Same)
Transportation—Operation	SU (Less)	SU (Less)	SU (Greater)
Utilities and Service Systems	LS (Same)	LS (Greater)	LS (Same)
Relationship to objectives	Less	Less	Less

LS = Less Than Significant
PS = Potentially Significant
S = Significant
SU = Significant and Unavoidable

Chapter 3 PROJECT DESCRIPTION

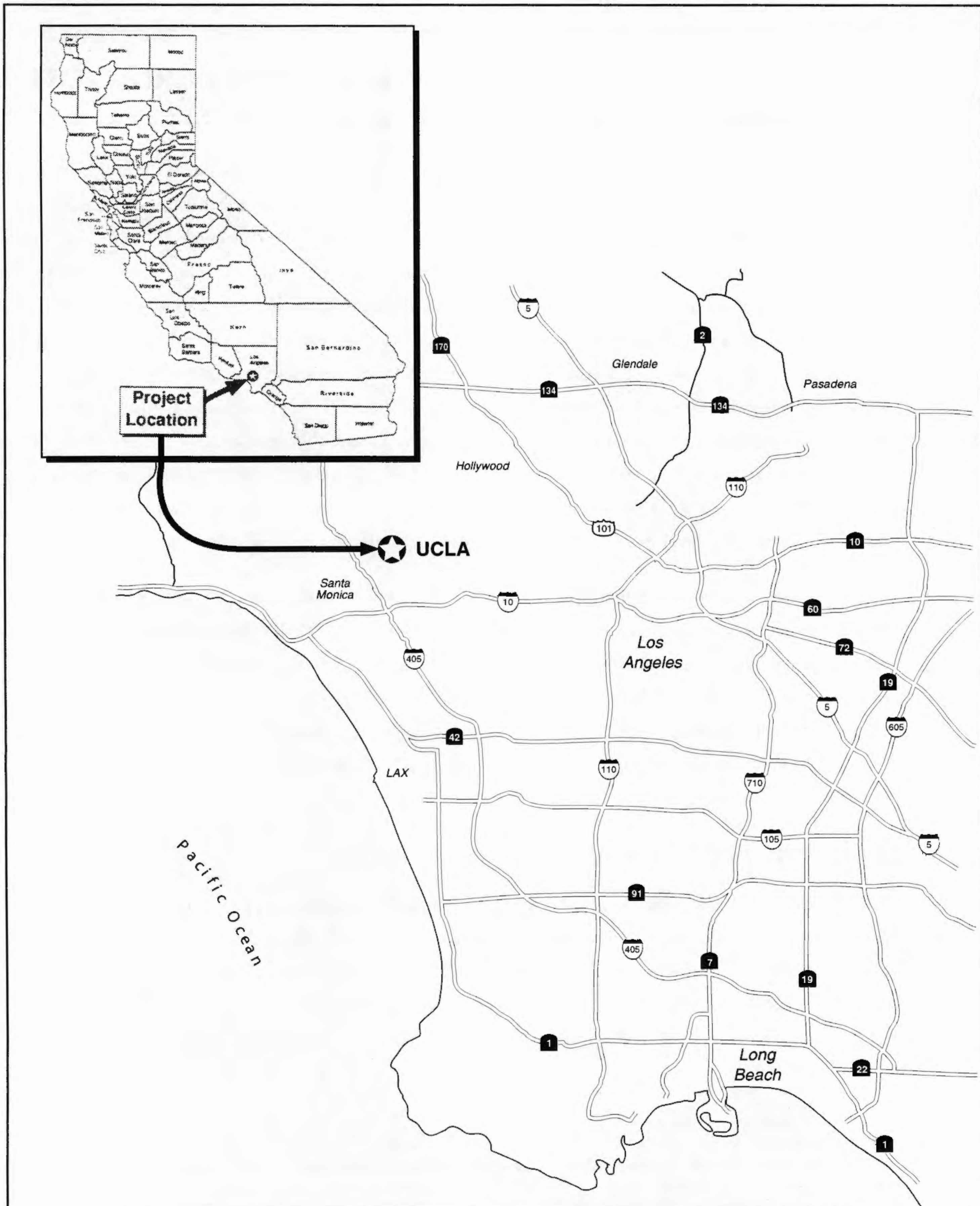
A Long Range Development Plan (LRDP) is defined by statute (Public Resources Code Section 21080.09) as a "physical development and land use plan to meet the academic and institutional objectives for a particular campus or medical center of public higher education." The University of California, Los Angeles (UCLA) proposes to update the current LRDP for the UCLA campus, which was previously adopted by The Board of Regents of the University of California (The Regents) in November 1990. The 1990 LRDP identified eight land use zones and proposed development of 3.71 million net gross square feet (gsf) over an approximate 15-year planning horizon through academic year 2005–06. Of the 3.71 million gsf originally allocated and approved under the 1990 LRDP, approximately 2 million gsf have been developed since 1990, resulting in a remaining development allocation of 1.71 million gsf. The update to the 1990 LRDP, referred to as the 2002 LRDP, would extend the 1990 LRDP from a horizon year of 2005–06 to 2010–11[4] to accommodate an increase in the campus population, while maintaining the same campuswide development allocation, vehicle trip limits, and parking limits of the 1990 Plan.

This Environmental Impact Report (EIR) has been prepared in compliance with the procedural and substantive requirements of the California Environmental Quality Act (CEQA) to address the potential environmental impacts resulting from implementation of the 2002 LRDP. As allowed by Section 15168 of the CEQA Guidelines, Volume 1 of this EIR contains a program-level environmental analysis of the 2002 LRDP. In accordance with Section 15161 of the CEQA Guidelines, Volume 2 of this EIR includes a project-specific environmental analysis for the proposed Northwest Housing Infill Project (NHIP), which is a component of the 2002 LRDP.

3.1 PROJECT LOCATION

The 419-acre UCLA campus is located in the Westwood community in the City of Los Angeles, approximately 12 miles from downtown Los Angeles and 6 miles from the Pacific Ocean, as shown in Figure 3-1 (Regional Location). The project site, which consists of the entire UCLA campus, is bounded roughly by Sunset Boulevard to the north, Hilgard Avenue to the east, Le Conte Avenue and Wilshire Boulevard to the south, and Gayley Avenue and Veteran Avenue to the west, as illustrated by Figure 3-2

[4] While the planning horizon for the 2002 LRDP is anticipated to be 2010–11, the LRDP could continue beyond that year, provided that the development allocation, vehicle trip, and parking limits are maintained. Further, irrespective of the actual date of the horizon year, the 2002 LRDP EIR shall remain a valid basis for evaluating impacts resulting from implementation of the 2002 LRDP so long as compliance with Sections 15162 through 15164 and 15168 of the CEQA Guidelines is maintained.



SOURCE: EIP Associates

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FIGURE 3-1
Regional Location

(Campus Map). Figure 3-3 (Project Site) conceptually illustrates the project site (i.e., the UCLA campus) and the location of the various components of the NHIP. A detailed project description for the NHIP with associated illustrations appears in Volume 2 of this EIR.

3.2 SUMMARY OF 2002 LRDP

The 2002 LRDP addresses the following primary elements:

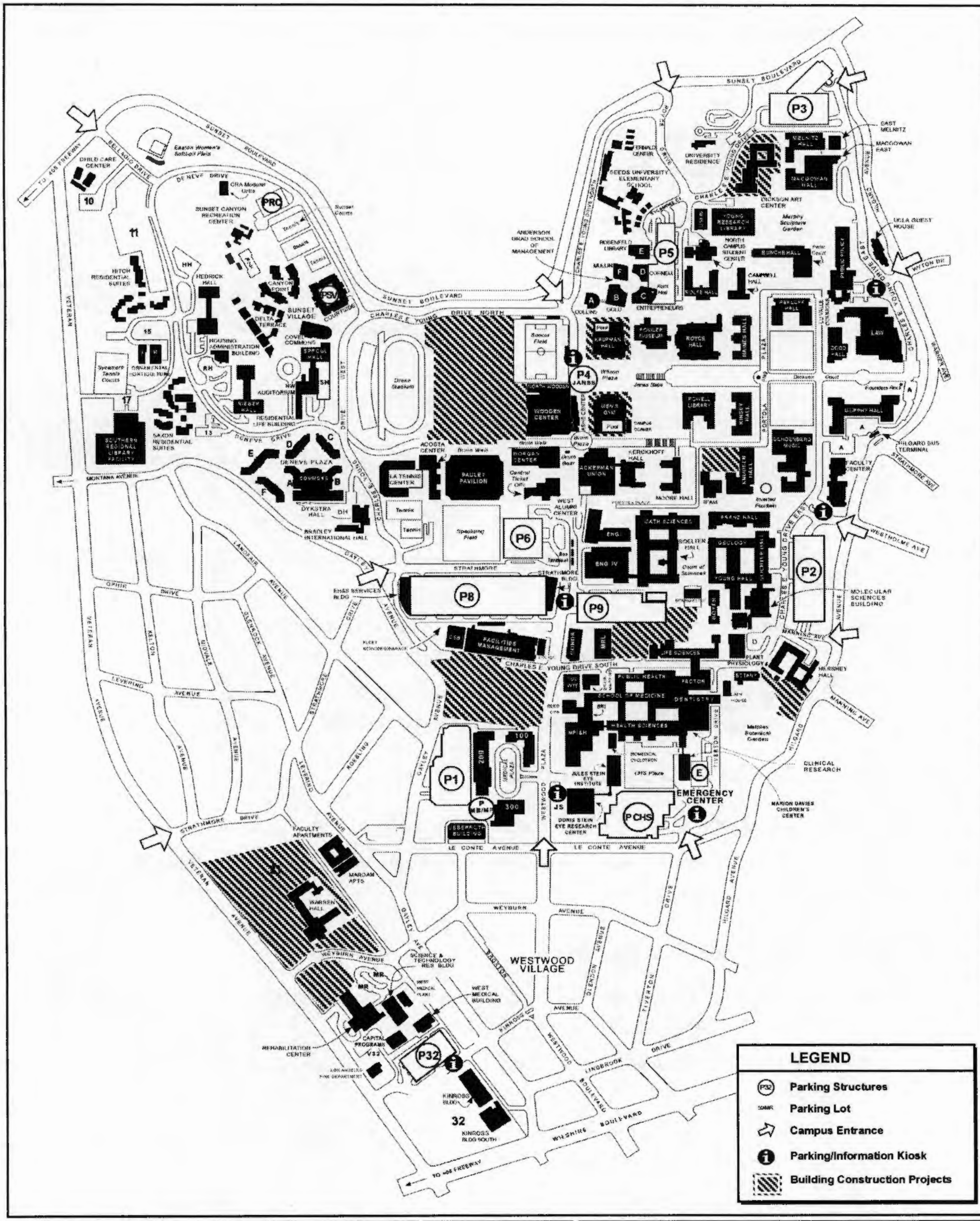
- An increase in the on-campus population of 4,873 average weekday students, academic and staff employees, and visitors for the regular session
- An increase in the on-campus population of 6,992 average weekday students, academic and staff employees, and visitors for the summer session
- Development of 1.71 million gsf remaining and approved under the 1990 LRDP (reallocated among the eight existing campus zones) to address existing and future program needs, as well as the space requirements associated with an increased student enrollment
- Development of 2,000 beds of undergraduate student housing in the Northwest zone of campus, including associated recreation and parking
- Continued promotion and expansion of the existing Transportation Demand Management Program, consistent with regional planning efforts to improve traffic and air quality
- Continued compliance with the existing limits of 25,169 on-campus parking spaces (including stack parking) and 139,500 average daily vehicle trips attributable to UCLA

3.3 PROJECT OBJECTIVES

The proposed 2002 LRDP will guide the future growth and physical development of the UCLA campus in support of its academic, research, and public service mission based upon the following academic, physical, and operational objectives.

3.3.1 Academic Objectives

- Offer teaching, research, and service programs of the highest quality to serve the needs of the Los Angeles region, the State of California, and the nation.
- Build an academic community of faculty and students in keeping with an institution of UCLA's caliber.
- Build a strong organization of staff employees through training and professional development programs and attention to the working environment.



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SOURCE: UCLA

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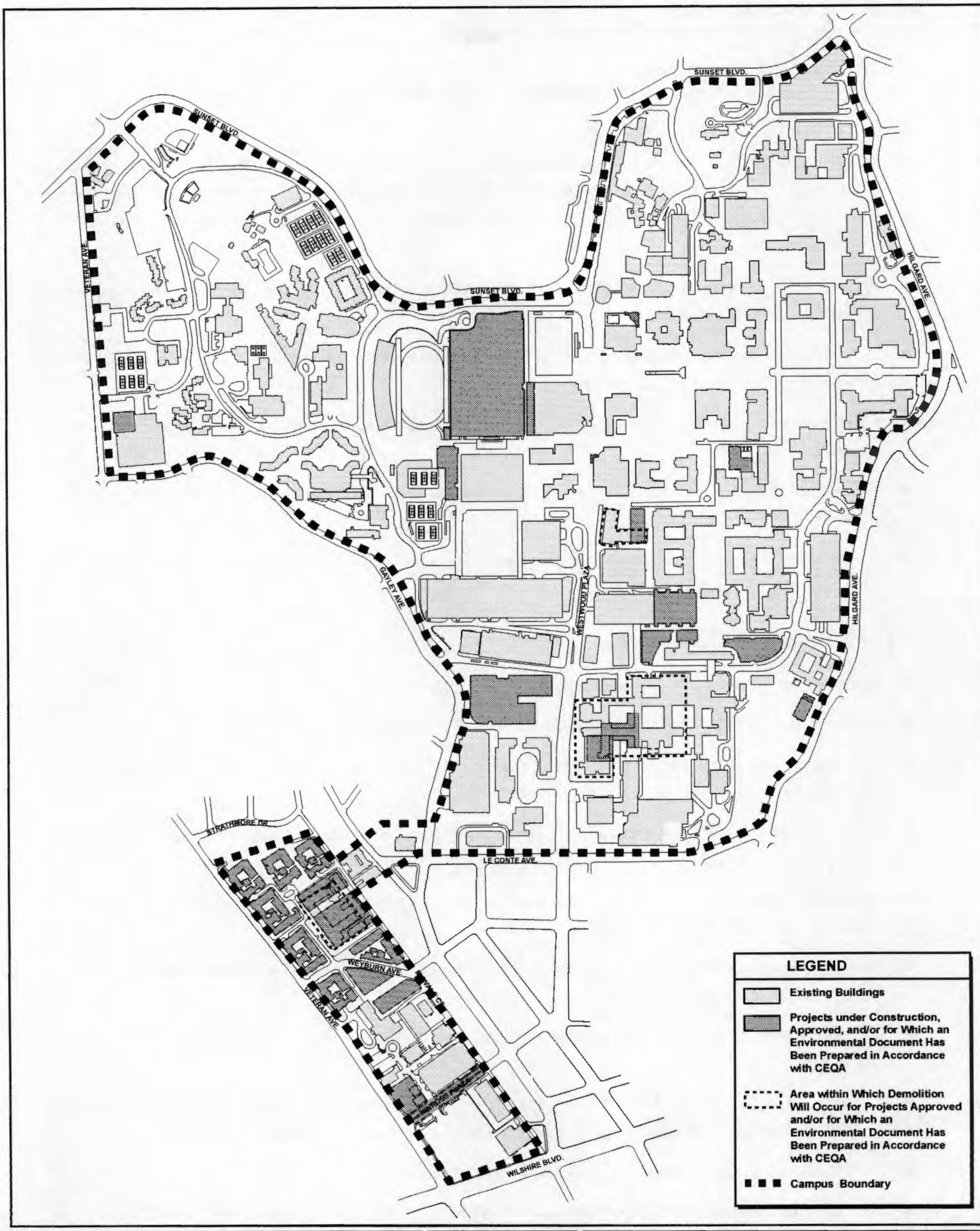
FIGURE 3-2
Campus Map

UCLA 2002 LRDP



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SOURCE: UCLA

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FIGURE 3-3
Project Site

UCLA 2002 LRDP

- Foster diversity among students, faculty, and staff, and through curriculum, academic programs, and public service.
- Ensure student access in a manner consistent with the Master Plan for Higher Education in California, while continuing to enhance the quality of the academic program and meeting the University enrollment growth target to accommodate an additional 4,000 FTE students at UCLA by 2010–11.
- Develop an academic, administrative, and physical environment that supports outstanding research and creative activity.
- To the extent feasible, site new buildings in locations that offer programmatic advantages due to proximity to related academic disciplines.
- Create an intellectual milieu and shared ethic that fosters excellence and a sense of community on campus.
- Create an environment for student life that fosters students' academic, personal, and social development.
- Continue to serve the Los Angeles region through provision of cultural, health, educational, and other community programs.

3.3.2 Physical Objectives

- Maintain the 1990 LRDP campus parking cap of 25,169 spaces.
- Maintain the 1990 LRDP campus vehicle trip cap of 139,500 average daily trips.
- Develop a maximum of 1.71 million gsf of additional building space, which represents the remaining approved 1990 LRDP development allocation.
- Continue the infill development of the UCLA campus, which reduces vehicle miles traveled and energy consumption.
- Retain the human scale and rich landscape of the campus while enhancing its function as a mature university in a fully developed urban environment.
- Site and design facilities to enhance spatial development of the campus while maximizing use of limited land resources.
- Respect and reinforce the architectural and landscape traditions that give the campus its unique character.
- Continue to integrate landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) with development, to encourage use through placement and design.
- Provide recreational facilities for students, faculty, and staff on campus.
- Provide a landscaped buffer along the western, northern, and eastern edges of the main campus.

- Design future development on the southern edge of the main campus to enhance the campus interface with Westwood Village.
- Maintain the integrity of the campus historic core.
- Site new building projects to ensure compatibility with existing uses and the height and massing of adjacent facilities, to the extent feasible.
- Provide accessibility for the disabled in the siting and design of new buildings or the renovation, restoration, or reconstruction of existing buildings.
- Clarify and strengthen existing pedestrian and vehicular circulation to enhance way-finding and promote safety.
- Develop on-campus housing to enhance the educational experience for students and continue the evolution of UCLA from a commuter to a residential campus.

3.3.3 Operational Objectives

- Accommodate a proportion of enrollment growth by utilizing existing campus facilities more intensively during the summer, thereby minimizing capacity impacts to student services, housing, parking, and traffic, and limiting population growth in the regular session when campus activity is highest.
- To the extent practicable, continue to incorporate design features, technological adaptations, and/or planning principles into future campus development to encourage or reinforce the concept of environmental sustainability and stewardship, including the conservation of resources and the minimization of waste.
- Promote the efficient use of water through the use of natural drainage patterns, drought tolerant landscaping, and recycling and reuse.
- Encourage energy efficiency through thoughtful design that considers the effective placement of buildings and the use of shading, to the extent feasible.
- Continue to acquire and use clean fuel vehicles for public transit and fleet vehicles.
- Provide and promote opportunities for the use of alternative transportation modes.
- Plan, design, and implement the proposed project within the practical constraints of available funding sources.

3.4 PROJECT DESCRIPTION

The project description for the 2002 LRDP provides detailed information regarding (1) student enrollment and the campus population, (2) development allocations by zone, (3) student housing, (4) open space, (5) parking and circulation, (6) utility infrastructure, and (7) environmental sustainability.

3.4.1 Student Enrollment and Campus Population

Student enrollment at UCLA is discussed in the LRDP in terms of student *headcount* enrollment, or the number of individual students registered at UCLA. While the campus operates 365 days a year, the academic calendar consists of the *regular session* (fall, winter, and spring *three-quarter average*) and *summer session* (twelve weeks). Enrolled students may be *undergraduate* (individuals seeking a bachelors or equivalent degree) or *graduate and professional* (individuals seeking a masters or doctoral-level degree or a professional degree such as law, management, or medicine). Enrollment is further categorized into *general campus* and *health science* programs.

The *on-campus population*, or the number of individuals either enrolled or employed on campus (represented by headcount), consists of students, academic employees, and staff employees. Students make up the largest headcount group, followed by staff and academic employees. The on-campus student population excludes off-campus students, such as medical interns and residents assigned to other locations and students studying abroad. Staff and academic employees who work at off-campus locations or outside normal business hours are also excluded from the on-campus population.

For use in the environmental impact analysis, on-campus population figures are adjusted to reflect the fact that all students, faculty, and staff who may be on campus at some time will not be on campus simultaneously on any given day. This is because weekday attendance patterns for students and employees vary due to class and teaching schedules, vacations, sabbaticals, and evening or weekend employment. Due to these variations, the number of enrolled and employed individuals on campus on any given weekday is less than the total number of people enrolled and employed. The *average weekday population* adjusts the total on-campus population to represent the average number of people (students and employees) physically on campus on any given weekday.

Other individuals comprise the remaining component of the average weekday population. This category includes medical center patients; conference and event participants; volunteers; gallery, museum, library, and recreation facility visitors; vendors; and construction workers.

The term *full-time-equivalent* students, or *FTE* students, is a key budget and planning metric for the University of California (UC) since State funding to support enrollment growth at UCLA is provided on the basis of pre-established annual student FTE levels. The number of FTE students differs from the number of individual students (*headcount*) who are enrolled at the campus to take classes. Forty-five units of coursework taken by undergraduate students at UCLA during an academic year is equivalent to one FTE student, based on the concept of an entering freshman making orderly progress over four years toward a 180-unit degree. At the graduate level, 36 units of coursework are equivalent to one FTE, and in the health sciences, every student headcount is considered to be one FTE.

If each student (undergraduate or graduate) took a full-time course load, student FTE would equal the student headcount enrollment. Student FTE is somewhat lower than the total student headcount, however, because students currently take slightly less than a full-time course load on average (approximately 93 percent of the defined full-time course load). This difference is compounded in the summer when enrollment consists primarily of undergraduate students who take only a little more than eight units of course work on average. Thus, each headcount student currently attending summer session equals slightly less than one-fifth of an FTE on average. It is because of these differences between the defined full-time course (45 units) load and the actual number of units taken by students that causes student FTE to differ from student headcount enrollment.

As previously discussed, the UC was asked in 1999 to take additional students to meet the needs of California's growing population. For UCLA the request was framed in terms of a growth target of 4,000 FTE students to be added to the General Campus academic program. At that time, UCLA's planned General Campus three-quarter average regular session FTE target was 28,900 FTE; the Health Sciences regular session FTE level was approximately 3,719 FTE; and 1,210 FTE comprised the summer session. Thus with the proposed additional 4,000 FTE students, the total 2010–11 budgeted FTE target for the UCLA campus is 37,829 FTE students.

Student Enrollment

The 37,829-student FTE budget target for 2010–11 is used to derive headcount projections for both the regular and summer sessions. Development of student headcount projections is subject to uncertainties that stem from difficulty in estimating future course loads that students will take and future State funding availability. For planning purposes, the LRDP headcount projections account for this uncertainty in order to ensure sufficient capacity to accommodate the growth in student enrollment and also to make certain that the potential environmental consequences of enrollment growth are adequately addressed. Therefore, the student headcount projections shown in Table 3-1 (Projected Student Enrollment [On and Off Campus]) represent the highest headcount growth that could occur in both the regular and summer sessions through academic year 2010–11. Actual headcount enrollment will most likely be lower than the estimates for both periods, and growth patterns could vary between the regular and summer sessions over the planning horizon. Combined enrollment growth in both the regular and summer sessions is also not anticipated to be greater than the 2010–11 total student FTE budget target previously described.

Table 3-1 Projected Student Enrollment[1] (On and Off Campus)	2001–02 Baseline[2]	2010–11 Projection
Regular Session (three-quarter average headcount)		
General Campus and Health Sciences		
Undergraduate	24,763	25,661
Graduate and Professional	11,156	11,969
Total[3]	**35,919**	**37,630**
	2000 Baseline[4]	2010 Projection
Summer Session (total enrolled headcount)		
General Campus and Health Sciences[5]	10,010	16,560

1. Many of the students that attend summer session are also enrolled in regular session. Because regular session headcount is represented by the 3-quarter average, and summer session headcount is represented by the total number of students enrolled, it is not meaningful to combine the regular and summer session projections (i.e., the sum of the two would double-count a number of students enrolled in both sessions).
2. This estimate was developed in Summer 2001 to begin the 2002 LRDP planning process and establish a baseline year for the environmental analysis.
3. Includes off-campus health science students and students studying abroad.
4. Summer 2000 baseline reflects the actual headcount before State funding incentives increased enrollment in Summer 2001 to approximately 14,000. Selection of 2000 as the baseline year for planning purposes allows for an assessment of the total growth anticipated for summer sessions through 2010, including the increases that occurred in Summer 2001.
5. Summer sessions are almost exclusively attended by undergraduate students.

Source: UCLA Analysis and Information Management, 2002

In Table 3-1, regular session headcount enrollment is presented as a *three-quarter average* of students enrolled in the fall, winter, and spring quarters, whereas summer enrollment represents the *total* number of students enrolled in one or more classes over the twelve-week summer session. Many of the students that attend summer session are also enrolled in the regular session. Consequently, it is not meaningful to combine the student headcount estimates for regular and summer sessions, as the sum of the two would double-count a number of students enrolled in both sessions.

Campus Population

Projections of the total campus population and estimates of the average weekday on-campus population are provided in Table 3-2 (Regular Session On-Campus Population) and Table 3-3 (Summer Session On-Campus Population) for the regular and summer sessions, respectively.

Table 3-2 shows that the on-campus population of students and academic and staff employees during the regular session is projected to grow by approximately 7.4 percent over the 2002 LRDP planning horizon. Table 3-3 shows that the on-campus population of students, academic employees, and staff employees during the summer session is anticipated to increase approximately 31 percent over the same time period.

Even with a larger percentage of student growth projected for the summer session, the overall total campus population during summer session will remain substantially below that of the regular session over the 2002 LRDP planning horizon.

Table 3-2 Regular Session On-Campus Population

		Baseline 2001–02[1]	Projected 2010–11	Growth
Regular Session (3-quarter Average)				
Students Enrolled[2]		34,310	36,445	2,135
Academic Employees[3]		5,342	6,147	805
Staff Employees[4]		14,703	15,793	1,090
	Total	***54,355***	***58,385***	***4,030***
Average Weekday Population				
Students, and Academic and Staff Employees[5]		46,080	49,506	3,426
Other Individuals[6]		10,588	12,035	1,447
	Total	***56,668***	***61,541***	***4,873***

1. This estimate was developed in Summer 2001 to begin the 2002 LRDP planning process and establish a baseline year for the environmental analysis.
2. Includes total general campus and health science enrollment and excludes off-campus health science students and students studying abroad.
3. Includes faculty and other teaching and academic staff and Emeriti and excludes sabbatical leaves, off-campus assignments, evening employees, and student employees (i.e., teaching assistants and interns and residents that are included in student enrollment numbers).
4. Includes nonacademic career, casual and contract/per diem employees, and excludes off-campus assignments, evening employees, and student employees (student employees are included in student enrollment numbers).
5. Adjusted for varied class and teaching schedules, vacations, sick leave, absences from campus, and other less than full-time work or study schedules.
6. Average weekday numbers of Medical Center clinical and affiliated faculty, patients, visitors, and volunteers; pre-school and elementary school children; other campus visitors and volunteers; vendors; and construction workers.

Source: UCLA Analysis and Information Management, 2002

Table 3-3 Summer Session On-Campus Population

		Baseline 2000[1]	Projected 2010	Growth
Summer Session (Total headcount)				
Students Enrolled[2]		10,010	16,560	6,550
Academic Employees[3]		4,722	5,532	810
Staff Employees[3]		12,983	14,214	1,231
	Total	***27,715***	***36,306***	***8,591***
Average Weekday Population				
Students[4]		8,979	12,751	3,772
Academic and Staff Employees[5]		14,706	16,332	1,626
Other Individuals[6]		10,441	12,035	1,594
	Total	***34,126***	***41,118***	***6,992***

1. Summer 2000 baseline reflects the actual headcount before State funding incentives increased enrollment in Summer 2001 to approximately 14,000. Selection of 2000 as the baseline year for planning purposes allows for an assessment of the total growth anticipated for summer sessions through 2010, including the increases that occurred in Summer 2001.
2. Total headcount for both on-campus summer sessions (i.e., Sessions A and C combined; Session B occurs entirely off campus).
3. Regular session academic and staff employee headcount adjusted to reflect lower employment during summer months (e.g., academic employees with nine-month teaching appointments who do not conduct research on campus during the summer).
4. Average weekday summer session student headcount is estimated to be equal to the peak Session A headcount enrollment. Enrollment in Session A is always higher than Session C. While Session C enrollment is projected to increase over the 2002 LRDP planning horizon, it will remain below Session A.
5. Adjusted for varied class and teaching schedules, vacations, sick leave, absences from campus, or other less-than-full-time work or study schedules.
6. Average weekday numbers of Medical Center clinical and affiliated faculty, patients, visitors and volunteers; pre-school and elementary school children; other campus visitors and volunteers; vendors; and construction workers.

Source: UCLA Analysis and Information Management, 2002

3.4.2 Development Allocations

The purpose of the proposed 2002 LRDP is to guide the physical development of the campus through the 2010–11 academic year. In addition to identifying academic, physical, and operational objectives, the 2002 LRDP also delineates campus land use zones and estimates the net building space proposed for each zone.

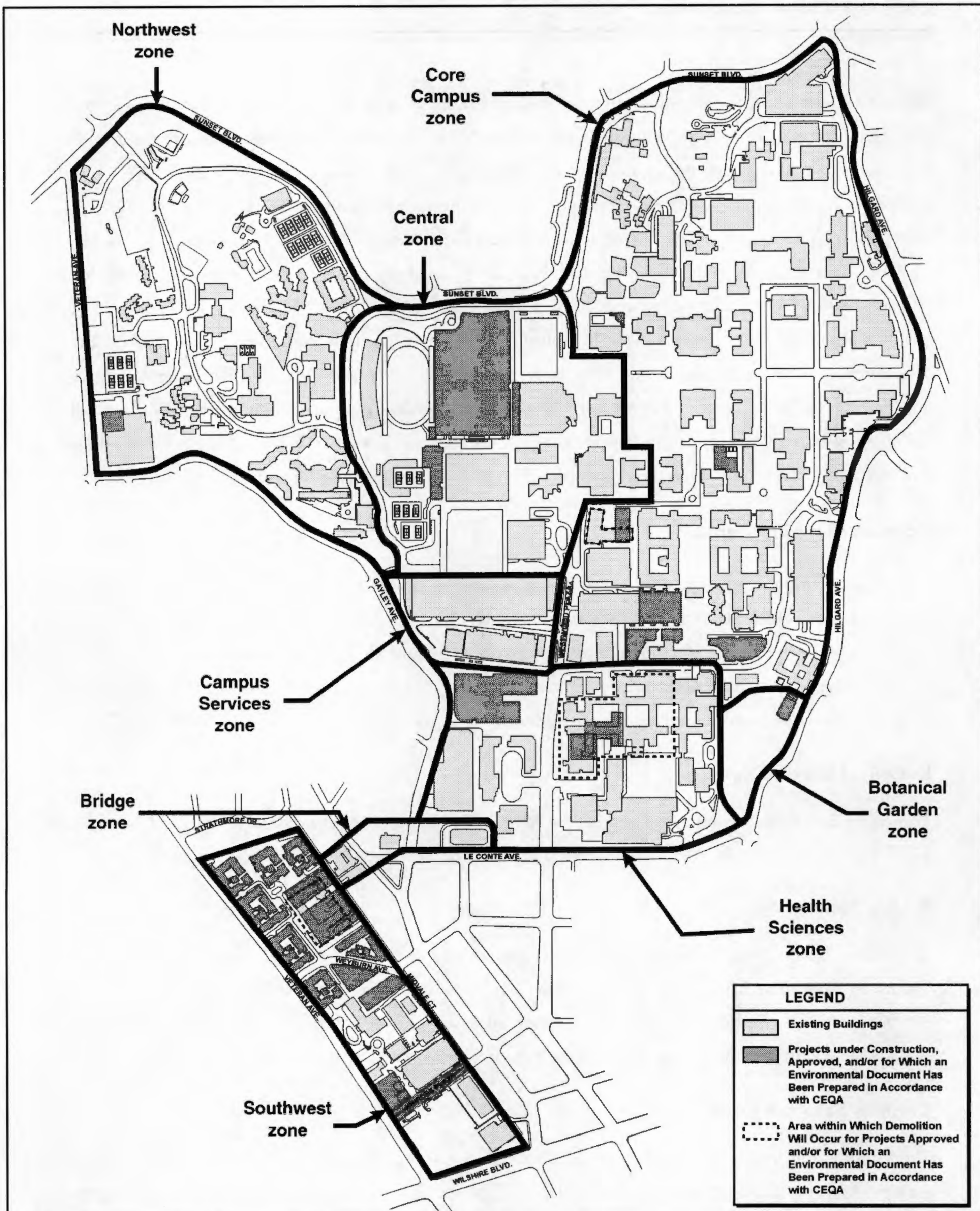
While the campus functions as an integrated whole, patterns of use and adjacency have defined areas characterized by dominant uses and differing densities roughly contained within eight campus-planning zones: Botanical Garden, Bridge, Campus Services, Central, Core Campus, Health Sciences, Northwest, and Southwest zones. The 2002 LRDP retains the same land use zone designations as the 1990 LRDP, except for a modification of the boundary between the Campus Services zone and the Health Sciences zone that was adopted in 1998 to accommodate the Westwood Replacement Hospital component of the Academic Health Center Facilities Reconstruction Plan. Figure 3-4 (Campus Land Use Zones) illustrates the eight campus land use zones.

In consideration of the evolving campus academic and ancillary needs, the 1.71 million gsf remaining under the 1990 LRDP would be reallocated among the eight land use zones as shown in Table 3-4 (Proposed Development Reallocation by LRDP Zone). The existing and proposed development square footage excludes parking structures, since parking limits are assessed by the number of parking spaces rather than the square footage of the parking structures themselves. The 1.7 million gsf of net new development has been reallocated in order to meet campus housing needs in the Northwest zone, academic space needs in the Core Campus zone, and other space needs to address varying demands for added administrative, facilities management, research, and childcare services.

Table 3-4 Proposed Development Reallocation by LRDP Zone

LRDP Zone	*1990 LRDP Remaining Allocation (gsf)*	*2002 LRDP Proposed Allocation (gsf)*
Botanical Garden	0	0
Bridge	25,000	175,000
Campus Services	0	20,000
Central	0	5,000
Core	303,433	457,465
Health Sciences	680,092	269,000
Northwest	5,000	570,000
Southwest	692,940	210,000
Total	***1,706,465***	***1,706,465***

Source: UCLA Capital Programs, 2002



Not to Scale

SOURCE: UCLA

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FIGURE 3-4
Campus Land Use Zones

UCLA 2002 LRDP

While the LRDP identifies the amount of development anticipated within each campus land use zone, the allocations are subject to forecasting uncertainty and other unforeseen circumstances. Therefore, in order to balance the specificity required for the planning and environmental analysis with the flexibility needed to accommodate future development, each of the proposed development allocations by zone (listed in Table 3-4) will be permitted to vary by up to 30,000 gsf over the LRDP planning horizon without requiring an amendment to the LRDP, so long as (1) additional square footage (up to 30,000 gsf) needed in a particular zone is balanced by a subtraction of the same amount of square footage from one or more of the other zones, (2) the Botanical Garden zone allocation would not change, and (3) any proposal would be consistent with LRDP development objectives and CEQA. For example, up to 30,000 gsf could be reallocated to the Core Campus zone by reducing the allocation from one or more of the other campus zones by an equivalent 30,000 gsf. By adhering to these conditions, the overall campus development will remain within the proposed 1.71 million gsf for the duration of the 2002 LRDP.

Campus Planning Zones

A description of the types of land uses that could be developed within each of the eight campus planning zones under the 2002 LRDP is provided below. Future project proposals will be guided by the 2002 LRDP academic, physical, and operational objectives to ensure the best possible relationship among academic, research, and public service goals; faculty and student needs; site characteristics; and integration with the surrounding on-campus and off-campus community.

Botanical Garden Zone

The 7-acre Botanical Garden zone contains the Mildred E. Mathias Botanical Garden (Botanical Garden), which is open to the public. No future development is proposed for the Botanical Garden zone.

Bridge Zone

The 5-acre Bridge zone forms a physical land connection between the main campus zones and the Southwest zone. The Bridge zone consists of two administrative/academic buildings, student and faculty apartments, and an open landscaped area. Proposed development allocation in the Bridge zone could provide for potential growth in ambulatory patient care and associated research facilities.

Campus Services Zone

The Campus Services zone, which is approximately 15.3 acres, contains the Energy Systems Facility, parking, facilities management shops and offices, the campus Environmental Services Facility (ESF), the campus fleet services yard, the Strathmore Building, and the police station. Proposed development allocation in the Campus Services zone could accommodate future needs for facilities management and/or community safety administrative services.

Central Zone

The 61.5-acre Central zone contains most of the campus recreational and athletic facilities and playing fields, as well as student activity centers and underground parking. Proposed development capacity in the Central zone could accommodate future facility requirements for the recreation and athletics programs.

Core Campus Zone

The Core Campus zone, which totals 158 acres, contains the campus historic core featuring the original campus buildings and associated open areas and accommodates the primary academic, research, library, and administrative facilities of the campus. Proposed development allocation in the Core Campus zone could accommodate future facility requirements of the primary academic, research, library, and administrative uses in the zone to meet the needs associated with enrollment growth in the College of Letters and Science, libraries, and professional school programs, including the arts, education, engineering, and public policy.

Health Sciences Zone

The Health Sciences zone is approximately 46.8 acres. Existing land uses within this zone include the Medical Center, the health sciences professional schools, medical laboratory and research facilities, the UCLA Medical Plaza, outpatient facilities, and parking. Proposed development allocation in the Health Sciences zone could provide for potential expansion of existing health sciences programs and future flexibility to accommodate the implementation of the Academic Health Center Facilities Reconstruction Plan.

Northwest Zone

The 90.5-acre Northwest zone includes residential facilities and support functions for undergraduate students. Other land uses include a Child Care Center, the Southern Regional Library Facility (SRLF), Tom Bradley International Hall, the Sunset Canyon Recreation Center, and other recreational uses. Proposed development in the Northwest zone is anticipated to accommodate the proposed Northwest Housing Infill Project, (which is addressed in Volume 2 of this Draft EIR), as well as an expansion of the existing child care facility.

Southwest Zone

Surface parking lots and one parking structure occupy approximately one-third of the 35.5-acre Southwest zone. In addition, this zone includes a variety of research, rehabilitation, medical, and administrative buildings, as well as a steam plant and the Southwest Campus Housing and Parking Project (currently under construction). Proposed development allocation in the Southwest zone could provide for a portion of future facility requirements of the primary academic, research, and administrative needs associated with enrollment growth in the College of Letters and Science and professional school programs, and future flexibility to accommodate implementation of the Southwest Campus Housing and Parking Project.

3.4.3 Student Housing

The 1990 LRDP incorporated the 1990 Student Housing Master Plan (SHMP) that provided for the continuing development of on-campus student housing to enhance the educational experience for students and continue the evolution of UCLA from a commuter to a residential campus. The primary goal of the 1990 SHMP was to house approximately 50 percent of UCLA student enrollment in a combination of university-owned housing or private-sector housing within one mile (or walking distance) of campus by 2005. In academic year 2000–01, approximately 46 percent of the campus student enrollment had been accommodated. With completion of construction to provide approximately 2,000 beds on campus for single graduate and upper-division students (the Southwest Campus Housing and Parking project, approved in January 2001), the 2005 SHMP goal will be met.

Despite the notable success in planning for and meeting student housing needs, several current and anticipated challenges face the campus housing program. Among these is the planned increase in enrollment through 2010–11, which will have a measurable impact on the demand for, and use of, campus housing resources. In academic year 2000–01, the campus began a consultative process to assess and develop a plan to address the anticipated increase in housing demand into the next decade. The Student Housing Master Plan, dated March 2001, sets new housing goals for the campus to address student housing demand through 2010.

As shown in Table 3-5 (Number of Students Housed in University-Owned or Private-Sector Housing), by 2010–11 the campus seeks to accommodate the housing needs of approximately 58 percent of student enrollment, continuing the evolution of UCLA from a commuter to a residential campus. Table 3-5 presents the total number of students currently housed in university-owned and private-sector housing within walking distance of campus in relation to the 2005 goals, as well as the proposed 2010 goals identified in the 2001 SHMP.

Table 3-5 Number of Students Housed in University-Owned or Private-Sector Housing

	1990 LRDP Goal for 2005	2001–02 Actual	2001–02 Percentage of Students Housed	2010 Goal	2010–11 Estimated Percentage of Students Housed
University-Owned[1]					
Undergraduate	6,167	8,294	33%	10,390	41%
Graduate/Professional	4,326	1,103	10%	4,109	34%
Subtotal	*10,493*	*9,397*[2]	*26%*	*14,499*	*39%*
Private Sector[3]	6,500	7,225	20%	7,225	19%
Total	***16,993***	***16,622***	***46%***	***21,724***	***58%***

1. Includes students housed in on-campus and University-owned apartments off campus.
2. Excludes 427 postdoctoral scholars living in University-owned apartments.
3. Within walking distance to campus.

Source: UCLA Student Housing Master Plan, 2001

3.4.4 Open Space

Open space is an essential component of the aesthetic and social life of the campus. Of the total campus area of 419 acres, approximately 152 acres (or 36 percent), consist of green space, including: landscaped buffer areas surrounding the northern, eastern, and western boundaries of the main campus; many open space preserves; landscaped courtyards, plazas, and gardens; recreational areas; and campus entries. All of the plant life on the UCLA campus has been introduced along with the development of buildings, and the majority of the vegetation consists of nonnative rather than native species. Numerous varieties of imported trees and shrubs that have adapted to the southern California climate have become the foundation of the campus reputation for a garden-like environment.

Refer to Volume 3, Chapter II (Text Changes)

Preserves

Several campus open spaces have been developed to an exceptional level of spatial and aesthetic excellence or hold cherished places in campus history and tradition. These will be maintained as open space preserves for the 2002 LRDP planning horizon. They include the following:

- *Mildred E. Mathias Botanical Garden*—Located in the southeast corner of campus, the garden contains approximately 5,000 species of exotic and native plants and provides a unique aesthetic, teaching, and research resource, which is available to the public. This area also provides an important buffer zone between the campus and the residential area to the east

- *The Franklin D. Murphy Sculpture Garden*—This area contains one of the world's premier collections of sculptures, located in an idyllic setting the northern Core campus
- *Dickson Plaza*—Located in the heart of the campus, Dickson Plaza constitutes the east/west axis of the original Kelham campus plan. It is bordered by some of the oldest and grandest campus buildings, including Powell Library, Haines Hall, Kinsey Hall, and Royce Hall
- *Janss Steps*—Janss Steps represent the east/west connection between the north/central entrance to the campus (Sunset Boulevard and Westwood Boulevard) and Dickson Plaza
- *Stone Canyon Creek Area*—Stone Canyon Creek is a flood-control channel west of the Anderson School that contains numerous native and exotic tree species
- *Meyerhoff Park*—Meyerhoff Park is a large sloping lawn area that flanks Janss Steps, and is located in the central portion of the main campus west of Powell Library
- *Wilson Plaza*—This plaza is the open area above the suhterranean parking between Glorya Kaufman Hall and the Men's Gymnasium (Student Activities Center)
- *Bruin Plaza*—Bruin Plaza serves as a pedestrian gathering space and accommodates outdoor concerts. The plaza anchors the northern reach of Westwood Plaza and features the bronze "Bruin Bear" sculpture
- *University Residence*—Built and landscaped in 1929, the University Residence is home to the UCLA Chancellor

Recreational Open Areas

Recreational open areas are important to quality of life and the health of the campus community and the quality of campus life. Major recreational areas located in the Central and Northwest zones of campus that will be maintained over the 2002 LRDP planning horizon include the following:

- *Sunset Canyon Recreation Area*—This area provides two pools, picnic/barbecue areas, sand volleyball courts, tennis courts, informal playing fields, and an outdoor amphitheater in a rolling landscape edged with trees
- *Drake Track & Field Stadium*—The Drake Track & Field Stadium provides an arena for intramural and intercollegiate athletics and a 400-meter, nine-lane running track
- *Marshall Field*—Marshall Field is the turf area located at Drake Track & Field Stadium that is used for various field sports
- *Intramural Field*—The Intramural Field is the largest contiguous open recreational area located on campus. This 8.5-acre field is located between Drake Stadium and the North Athletic Field above the subterranean parking that is currently under construction
- *North Athletic Field*—The North Atlantic Field is located above subterranean Parking Structure 4 and is utilized for intramural and intercollegiate field activities

- *Spaulding Field*—Spaulding Field serves as an important athletic practice field located north of Strathmore Drive
- *Easton Stadium*—Serves as an important field for Women's softball practice and competitive events and is located in the Northwest zone
- *Sycamore Park*—Sycamore Park includes tennis courts, a pitch and putt golf course, and lawn areas available for daytime use. It is located north of the Southern Regional Library Facility

Formal Open Areas

Other highly valued formal courtyards, plazas, and open spaces include the following:

- *Dickson Court*—The lawn area bracketed by Perloff Hall to the north and Schoenberg Hall to the south in the Core Campus zone
- *Court of Sciences*—This paved and landscaped area is located in the southern portion of the Core Campus zone and is surrounded by science and engineering buildings
- *Courtyard South of Powell Library*—This recently developed courtyard, situated between the southern wings of Powell Library, provides a quiet landscaped reading area
- *Inverted Fountain*—The inverted fountain is the prominent feature in a large open plaza area located in the Core Campus zone north of Franz Hall
- *Sunset Village Plaza and De Neve Plaza*—These plazas are internal courtyards that provide pedestrian linkages between the individual residential halls in the Northwest zone
- *UCLA Medical Center Plazas*—The Center for the Health Sciences (CHS) Plaza (above the CHS parking structure) and other courtyards are located within the Health Sciences zone
- *Rolfe Sculpture Courtyard*—This courtyard, nestled on the north side of Rolfe Hall, features eleven works in bronze by Robert Graham, an internationally renowned Los Angeles–based sculptor
- *UCLA Medical Plaza*—The UCLA Medical Plaza is located amidst the outpatient medical care facilities near the Westwood Plaza and Le Conte Avenue campus entrance in the Health Sciences zone
- *Stein Plaza*—The Stein Plaza is a formal entry plaza that serves the Jules and Doris Stein Eye Institute buildings in the Health Sciences zone
- *Alumni Plaza*—The Alumni Plaza is a formal hardscape area located on the top level of Parking Structure 5 that provides a connection to the Anderson Graduate School of Management in the Core Campus zone
- *Marian Anderson Court*—This formal courtyard is located within the Anderson School complex in the Core Campus zone and is dedicated to Marian Anderson

- *Kaufman Garden Theater*—This outdoor theater with lawn seating is north of Kaufman Hall in the Core Campus zone
- *Law School Courtyard*—An outdoor landscaped area with seating for informal gatherings and quiet reading in the Core Campus zone
- *Court of Humanities*—A newly created landscape and hardscape area north of Royce Hall in the Core Campus zone

Campus Entries

Campus entries also function as open areas that interface with off-campus uses and are marked with landscape monuments of brick or stone. The major entry to the campus from the south functions as a campus "Gateway," located at the intersection of Le Conte Avenue and Westwood Plaza. Other campus entries include the following:

- Charles E. Young Drive South at Gayley Avenue
- Strathmore Drive at Gayley Avenue
- Bellagio Drive at Sunset Boulevard
- Westwood Boulevard at Sunset Boulevard
- Royce Drive at Sunset Boulevard
- Comstock Avenue at Hilgard Avenue
- Wyton Drive at Hilgard Avenue
- Westholme Avenue at Hilgard Avenue
- Manning Avenue at Hilgard Avenue
- Tiverton Drive at Le Conte Avenue

3.4.5 Parking and Circulation

The on-campus circulation system is organized to facilitate on-campus travel, separating vehicles from pedestrians as much as possible. The system limits automobile traffic to the peripheral loop road (Charles E. Young Drive) and access to parking lots and structures. Roads in the central portion of campus are restricted for use by emergency and service vehicles and access for disabled persons. Well-developed pedestrian pathways between buildings continue to be enhanced in conjunction with new development to improve way-finding and safety. For example, an extension of Bruin Walk, the main east/west pedestrian pathway, was provided in conjunction with a recently completed student housing project in the Northwest zone. Similarly, in association with the Southwest Graduate Student Housing and Parking project in the Southwest zone, a major enhancement to the Westwood Village street grid system is underway. An extension of Kinross Avenue will provide public vehicular access across Parking Lot 32, with a phased traffic signal at the newly formed intersection of Kinross and Veteran Avenues. While the on-campus vehicular and pedestrian circulation system is well established, opportunities for enhancement to improve way-finding would be undertaken in conjunction with future development under the 2002 LRDP, as appropriate.

In response to the need to develop alternative solutions to the growing transportation problems in the Los Angeles region, UCLA adopted a Transportation Systems and Demand Management Plan (TDM) in 1984. The TDM plan was incorporated into the 1990 LRDP as a cornerstone element intended to enable the campus to limit the supply of parking and the number of average daily vehicle trips. In this regard, the 1990 LRDP Final EIR adopted mitigation measures that committed the campus to (1) no net increases in the supply of parking beyond the previously approved level of 25,169 spaces in 1990 and (2) limit the campus total average daily vehicle trips to 139,500 with an annual reporting requirement to the City of Los Angeles based on vehicle counts conducted each fall when traffic is at the highest level (the "Cordon Count"). As of 2001–02, the campus average daily vehicle trip generation totaled 121,799, approximately 13 percent below the vehicle trip generation limit adopted in the 1990 LRDP.

Over the past decade, UCLA has funded many off-campus traffic mitigations that have improved traffic conditions surrounding the campus. In addition, the campus has installed an electronic monitoring system that enables automated counting of vehicles that enter and exit campus driveways and parking facilities. This system, approved by the City of Los Angeles Department of Transportation (LADOT), is used to conduct the annual cordon count submitted to LADOT and provides the campus with an important resource for managing transportation services.

Additional 1990 LRDP EIR mitigation measures required the campus to implement other TDM features in order to reduce the faculty/staff parking rate by 12 percent below the then-current levels, which has been achieved as of academic year 2001–02, along with an average vehicle ridership (AVR) of 1.5 persons per vehicle. Furthermore, the campus has established an extensive no-fee shuttle bus system, utilizing compressed natural gas (CNG)-fueled vehicles, which serves the main campus as well as portions of Westwood Village throughout the day and evening hours. Finally, to further support reductions in commuter trips to campus, the 1990 LRDP Final EIR included a commitment to develop additional housing in the Southwest zone for graduate students, which is currently under construction.

UCLA has one of the most comprehensive TDM programs in the country with the largest vanpool program of any public or private university. During the eighteen years of operation, UCLA's TDM program has remained at the leading edge and has received numerous awards from regional and local agencies, including the South Coast Air Quality Management District. UCLA has achieved, or approved plans toward achievement of, the TDM and housing goals set forth in the 1990 LRDP and has accomplished significant reductions in trip generation over what would have occurred without the TDM plan.

The existing campus parking inventory consists of 21,020 marked spaces and 1,310 stack spaces. Approximately 3,500 additional parking spaces are either under construction or approved in conjunction with the Replacement Hospital, the Intramural Field below-grade parking structure, and the Southwest Graduate Student Housing and Parking project. As these additional parking spaces become available for use, the campus reliance on stack parking operations will reduce accordingly to maintain the campus parking limit of 25,169 spaces adopted in the 1990 LRDP.

Parking Services at UCLA continually evaluates on-campus parking availability and allocation in response to changing institutional priorities and the population groups served. With consideration of the projected campus population growth, and with provision of the additional undergraduate housing proposed under the 2002 LRDP, it is anticipated that on-campus parking can continue to be provided at the same existing level of service within the parking inventory limit established in the 1990 LRDP. Future fluctuations in parking inventory may result from new development proposals and changes in the utilization of stack parking. However, as analyzed in this EIR, the overall parking inventory can and will be maintained within the LRDP limit of 25,169 spaces through 2010–11.

Finally, the campus remains committed to continue efforts to enhance the established UCLA TDM programs to minimize growth in average daily vehicle trips. As analyzed in this EIR, this commitment, coupled with the proposal to construct additional on-campus undergraduate student housing, will serve to maintain the total campus vehicle trip generation below the LRDP trip cap of 139,500 average daily trips through 2010–11.

3.4.6 Utility Infrastructure

The utility infrastructure and distribution system (i.e., electricity and gas, heating and cooling, water, sanitary sewer, storm drain, telephone and telecommunications, and waste disposal) that serves the campus is continually evaluated and upgraded in conjunction with proposed development in order to ensure adequate facilities and services. Ongoing resource conservation programs have reduced campus water consumption, electricity and gas demand, and solid waste generation over the past decade. In the early 1990s, the Energy Systems Facility (Chiller/Cogeneration) was completed. It provides approximately 75 to 80 percent of the campus electricity needs, as well as steam and chilled water to heat and air condition campus buildings. In addition, a Thermal Energy Storage System, placed in service in August 2002, has enhanced the efficiency and effectiveness of the campus cooling system by storing chilled water produced during the night when electrical demand is lower to provide air conditioning for campus buildings during the day.

The campus has also continued upgrades to electrical distribution systems and campus fire alarm systems, and improved telecommunication connectivity systems around the campus. A street lighting upgrade program and walkway lighting improvement program have significantly improved efficiency and effectiveness of nighttime campus lighting. Development proposed under the 2002 LRDP would include continued maintenance, expansion, and upgrading of campus utility and circulation infrastructure, as necessary.

3.4.7 Renovation, Rehabilitation, and Seismic Upgrades

Campus facilities require renovation and renewal as obsolescence and normal aging of building and utility infrastructure (e.g., plumbing, mechanical, and network technology) systems become apparent. Disciplines with sophisticated research requirements, such as those found in the physical and life sciences, have increasing difficulty in supporting instruction and research activities in technologically obsolete space and constrained facilities. Therefore, ongoing renewal and upgrade of existing facilities is a continuing need. In addition, a seismic structural correction program has been underway since the mid-1980s and was accelerated when the 1994 Northridge Earthquake caused significant damage to a number of campus structures. This seismic upgrade and building renovation program will continue throughout the 2002 LRDP planning horizon.

3.4.8 Environmental Sustainability

The concept of environmental sustainability addresses the need to maintain or sustain natural resources such that the needs of the present can be met without compromising the needs of future generations. The Governor's Executive Order D-16-00, which became effective August 2, 2000, establishes a State sustainable building goal to "site, design, deconstruct, construct, renovate, operate, and maintain State buildings that are models of energy, water, and materials efficiency, while providing healthy, productive, and comfortable indoor environments and long-term benefits to Californians." This approach treats an entire building as one system, recognizing that individual building features, such as lighting, windows, heating and cooling systems, and control systems need to be designed as a coherent whole. Additionally, certain systems can be implemented more efficiently on a campus-wide scale (e.g., the campus chiller/cogeneration [ESF] facility). While these Executive Orders are only advisory with respect to the University of California, UCLA continues to incorporate programs and techniques that create buildings and systems that are environmentally friendly and help provide for a sustainable environment. Many of the 2002 LRDP objectives promote the principles of sustainability, such as the efficient use of water, solid waste recycling and reuse, encouraging energy efficiency through the use of sustainable building design features, utilization of clean-fuel vehicles to improve air quality, and providing and promoting opportunities for the use of alternative transportation modes to reduce vehicle miles traveled. The campus has instituted and continues to maintain extensive water conservation and recycling programs, which are described in detail in Section 4.14 (Utilities and Service Systems), that have substantially reduced campus water demand in spite of an increasing campus population. Further, the campus will continue to incorporate design features, technological adaptations, and/or planning principles into future campus development to encourage or reinforce the concept of environmental sustainability and stewardship, including the conservation of resources and the minimization of waste.

Chapter 4 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

4.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

Sections 4.1 through 4.14 of Chapter 4 of this EIR contain a discussion of the potential environmental effects of implementation of the 2002 LRDP, including information related to existing site conditions, analyses of the type and magnitude of individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts.

4.0.1 Scope of the Environmental Impact Analysis

The 2002 LRDP is a land use plan that guides the physical development of the campus. It is not an implementation plan. Adoption of the LRDP does not constitute a commitment to any specific project, construction schedule, or funding priority. Rather, it describes the entire development program of 1.71 million gsf for the campus through 2010–11. Each major building proposal undertaken during the planning horizon of the LRDP must be approved individually by the Chancellor (after consultation and review by the Academic Senate and other appropriate segments of the campus community), by the UC Office of the President, and/or the Board of Regents (The Regents) of the University of California, as appropriate. Each major building proposal also requires project-specific environmental review in accordance with CEQA. Therefore, the 2002 LRDP EIR is a program-level environmental assessment that evaluates the effects of implementation of the entire LRDP. The LRDP environmental assessment is provided in this volume (Volume 1) of the 2002 LRDP EIR.

As previously described, preparation of the LRDP converged with a project-specific proposal to provide additional housing to accommodate existing and anticipated student enrollment. The proposed NHIP is described in detail, including the project-specific environmental analysis, in Volume 2 of the 2002 LRDP EIR.

The scope of the analysis of the potential environmental effects of the 2002 LRDP, including the NHIP, are described below.

2002 LRDP EIR (Volume 1)

In accordance with Appendix G of the CEQA Guidelines, the potential environmental effects of the proposed 2002 LRDP are analyzed for the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise and Vibration
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems
- Mandatory Findings of Significance[5]

Based upon the analysis provided in the Initial Study for the proposed project, which is provided in Appendix 2 (March 20, 2002, Revised NOP/IS and Comment Letters) of this document, impacts to agricultural resources and mineral resources were determined to be "Effects Not Found to Be Significant" according to Section 15128 of the CEQA Guidelines.

With respect to agricultural resources, the Initial Study concluded that the soils on campus are not candidates for listing as prime farmland, unique farmland, or farmland of statewide importance according to the *Soil Candidate Listing for Prime Farmland of Statewide Importance, Los Angeles County*, which was prepared by the U.S. Department of Agriculture Natural Resources Conservation Service (formerly the Soil Conservation Service) in 1995. In addition, no farmland or agricultural activity exists on or in the vicinity of campus, and no portion of the campus is zoned for agricultural use or is under a Williamson Act contract. Therefore, development under the 2002 LRDP would not convert or result in the conversion of agricultural uses to nonagricultural uses, and no additional analysis is required in this EIR.

[5] Mandatory Findings of Significance are defined in Appendix G of the CEQA Guidelines, and include specific impacts to biological resources, cumulative impacts, and environmental impacts that will cause substantial adverse effects on human beings, either directly or indirectly. Therefore, Mandatory Findings of Significance are addressed throughout the environmental analysis, which is provided in Sections 4.1 through 4.14 of this EIR.

With respect to mineral resources, the Initial Study determined that implementation of the 2002 LRDP would not result in the loss of availability of either a known mineral resource of value to the state or region, or a locally important mineral resource recovery site, because no such sites exist on the campus. Further, the California Department of Mines and Geology has only identified concrete aggregate as a mineral resource that could potentially be present on the campus. However, no recovery of concrete aggregate occurs or is known to have occurred on campus, and access to such a resource would already have been precluded by previous and current development. Additionally, the City of Los Angeles General Plan does not designate the campus as a mineral resource recovery site. Therefore, the Initial Study concluded that implementation of the 2002 LRDP would not result in the loss of availability of a locally important mineral resource delineated on a local general plan, specific plan, or other land use plan, and no additional analysis is required in this EIR.

Northwest Housing Infill Project EIR (Volume 2)

The environmental analysis of the NHIP, which is presented as a Project EIR in Volume 2 of the 2002 LRDP EIR, builds upon the broader programmatic analysis of environmental impacts resulting from implementation of the 2002 LRDP. The organization of the NHIP EIR (Volume 2) replicates the organization of the LRDP EIR (Volume 1); however, it avoids repetition of information and analysis provided in Volume 1, such as general background and setting information for environmental topic areas, the regulatory context, overall growth-related and growth-inducing issues, issues for which there is no additional information that would require new analysis, cumulative impacts, and broad campus planning alternatives. Instead, the analysis presented in Volume 2 reflects more detailed project-level information regarding the NHIP as compared to the broader, planning-level information regarding the campus as a whole contained in Volume 1. Analyses of potential environmental effects of the proposed NHIP cover the same specific issue areas analyzed in Volume 1 for the entire LRDP, including

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning

- Noise and Vibration
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems
- Mandatory Findings of Significance[4] (on page 4-2)

4.0.2 Format of the Environmental Analysis

Environmental Setting/Definition of the Baseline

According to Section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the "baseline condition" against which project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the Notice of Preparation (NOP) is published. The NOP for the LRDP EIR was published in June 2001, and revised in March 2002. However, the CEQA Guidelines recognize that the date for establishing an environmental baseline cannot be rigid. Because physical environmental conditions may vary over a range of time periods, the use of environmental baselines that differ from the date of the NOP is reasonable and appropriate when doing so results in a more accurate or conservative environmental analysis.

For analytical purposes, impacts associated with implementation of the 2002 LRDP are derived from two fundamental components of the existing baseline environmental setting—the campus population and the built environment. Due to variations in the on-campus population throughout the course of the year, particularly between the summer and regular sessions, and because different levels of population growth under the 2002 LRDP are expected for both the regular and summer sessions, each session is analyzed separately for the environmental impact areas that are based upon population. Population-based impacts include transportation/traffic, air quality, noise, population and housing, public services (police protection and school capacity), and recreation. In this regard, the baseline year for the regular session is academic year 2001–02, the academic year during which the revised NOP was published. This baseline year is used for all impact areas analyzed in this EIR to determine impacts during the regular session (i.e., fall, winter, and spring quarters). For the summer session, however, the baseline year is academic year 2000–01, or the summer of 2000, which precedes issuance of the NOP in order to allow an evaluation of the entire increase in summer session population through 2010, including growth that already occurred in response to State funding incentives provided to increase student enrollment beginning in the summer of 2001. For purposes of evaluating impacts related to physical development, the baseline condition for the environmental setting includes all existing development, as well as projects that are under construction, approved, and/or for which an environmental document has been prepared in accordance with CEQA as of academic year 2001–02. Impacts related to physical development include aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, utilities and service systems, and public services (fire protection). The environmental effects of the group of projects that comprise the baseline condition for the physical development of the campus, which totals approximately 1.5 million gsf, have already been analyzed and disclosed in accordance with CEQA, and adopted mitigation measures, which remain legally binding, are included for purposes of establishing the environmental baseline for this EIR. For analytical purposes, while this group of projects are included in the environmental baseline, they are accounted for separately in the environmental impact issue areas, where relevant, in order to clearly distinguish the environmental effects of those previously considered projects from future impacts of the 2002 LRDP.

Regulatory Framework

The Regulatory Framework provides a summary of regulations, plans, policies, and laws that are relevant to each issue area.

Project Impacts and Mitigation

This section is further divided into the following subsections, as described below.

Analytic Method

This subsection identifies the methodology used to analyze potential environmental impacts.

Thresholds of Significance

Thresholds of significance are criteria used to determine whether potential environmental effects are significant. The thresholds of significance used in this analysis were primarily based upon Appendix G of the CEQA Guidelines; however, in some cases, standards were developed specifically for this analysis or reflect those used by the University in other environmental analyses. This subsection defines the type, amount, and/or extent of impact that would be considered a significant adverse change in the environment. Some thresholds (such as air quality, traffic, and noise) are quantitative, while others, such as visual quality, are qualitative. The thresholds are intended to assist the reader in understanding how and why the EIR reaches a conclusion that an impact is significant or less than significant.

The thresholds of significance are provided both in the "Thresholds of Significance" section and immediately before the relevant impact analysis for ease of correlation.

Effects Not Found to Be Significant

Certain environmental impacts were determined to be "Effects Not Found to be Significant" based upon the analysis provided in the Initial Study for the proposed project. These impacts are summarized in this subsection based upon the analysis provided in the Initial Study/Revised Notice of Preparation (dated March 20, 2002) for the proposed project, which is included as Appendix 2 to this EIR.

Impacts and Mitigation Measures

This subsection describes the potential environmental impacts of the 2002 LRDP and, based upon the thresholds of significance, concludes whether the environmental impacts would be considered significant, potentially significant, or less than significant. Each impact is summarized in an "impact statement," followed by a more detailed discussion of the potential impacts and the significance of each impact before mitigation. This subsection also includes feasible mitigation measures that could reduce the severity of the impact. In addition to feasible mitigation measures (MMs), the campus will also continue to comply with all applicable local, State, and federal laws and regulations, and these laws and regulations are considered to be part of the project description. Similarly, established programs, practices, and procedures (PPs) that the campus regularly recognizes and follows are also considered part of the project description. Following the description of MMs and PPs, the subsection concludes with a statement regarding whether the impact, following implementation of the mitigation measure(s) or continuation of existing campus programs, practices, or procedures, would remain significant, and thus be significant and unavoidable, or would be reduced to a less-than-significant level.

The analysis of environmental impacts considers both the construction and operational phases associated with implementation of the 2002 LRDP. As required by Section 15126.2(a) of the CEQA Guidelines, direct, indirect, short-term, long-term, on-campus, and/or off-campus impacts are addressed, as appropriate, for the environmental issue area being analyzed. As previously mentioned, the analysis of impacts is based upon one of two factors, either population or the campus built environment, depending upon the type of impact. Impacts related to transportation/traffic, air quality, noise, population and housing, public services (police protection and school capacity), and recreation are analyzed on the basis of the campus population estimates associated with the 2002 LRDP. Impacts related to aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, utilities and service systems, and public services (fire protection) are analyzed on the basis of factors such as the proposed location of development, the proposed size (square footage) and type of development, acreage of ground disturbance, and known or expected presence of environmental resources (i.e., biological or cultural resources).

The Draft EIR uses the following terms to describe the level of significance of impacts identified during the course of the environmental analysis:

- **Significant and Unavoidable Impact (SU)**—Impact that exceeds the defined threshold(s) of significance and cannot be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures
- **Significant Impact (S)**—Impact that exceeds the defined threshold(s) of significance. For purposes of this document, pre-mitigation impacts that exceed the defined threshold(s) of significance are referred to as significant; however, when the impacts cannot be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures, these impacts are referred to as significant and unavoidable.
- **Potentially Significant Impact (PS)**—Impact that exceeds the defined threshold(s) of significance and can be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures
- **Less-Than-Significant Impact (LS)**—Impact that does not exceed the defined threshold(s) of significance

A "significant effect" is defined by Section 15382 of the CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not he considered a significant effect on the environment...[but] may be considered in determining whether the physical change is significant."

Each impact discussion is separately numbered and includes a brief impact statement that summarizes the subject of the analysis. This format is designed to assist the reader in quickly identifying the subject of the impact analyses and for use in Table 2-1 (Summary of Environmental Effects and Mitigation Measures), which forms the basis of the Mitigation Monitoring and Reporting Program. Impact numbers and statements are not provided for Effects Not Found to Be Significant, since they are less-than-significant impacts that do not require mitigation or additional analysis in this EIR. Accordingly, they are not monitored as part of the Mitigation Monitoring and Reporting Program, and no impact numbers or statements are necessary.

Analysis of Summer Session and Regular Session Impacts

The on-campus population during the regular session (fall, winter, and spring quarters) is much greater than during the twelve-week summer session. In addition, existing levels of traffic and noise are higher in the regular session than in the summer session. Existing levels of air emissions are, however, higher during the summer session than the regular session. Therefore, existing environmental conditions in these impact areas are not constant throughout the year. Because of the different levels of population growth that are anticipated during the summer session and the regular session, as well as the different background conditions that exist for each of these sessions, the 2002 LRDP EIR separately addresses the impacts associated with the regular session and the summer session where the impacts may differ. Summer session and regular session impacts only differ for those issue areas that are directly related to population growth, where the varied levels of population growth could result in potentially significant impacts in the summer session. Therefore, summer session impacts are addressed for population and housing, transportation/traffic, air quality, and noise. Impacts related to police protection, school capacity, and recreation, while related to population growth, are analyzed based upon the projected population in the regular sessions of 2010–11, since impacts would always be less in the summer session.

Impacts in all other issue areas are directly related to development levels (i.e., size, type, location, acreage of disturbance) and presence of resources (i.e., aesthetics, cultural, biological). Because development levels are the same irrespective of the time of year, and the manner in which the campus facilities are operated and maintained is generally the same, the impacts for the remaining issue areas would be essentially the same for both the regular and summer sessions. Therefore, they are not differentiated in the impact analyses.

Cumulative Impacts

CEQA requires that EIRs discuss cumulative impacts, in addition to project-specific impacts. In accordance with CEQA, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. Further, the discussion is guided by the standards of practicality and reasonableness. According to Section 15355 of the CEQA Guidelines:

> "Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> (a) The individual effects may be changes resulting from a single project or a number of separate projects.
>
> (b) The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present,

> and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Section 15130(a)(1) of the CEQA Guidelines further states that a "cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts."

Section 15130(a) of the CEQA Guidelines also requires that EIRs discuss the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, it need not consider the effect significant but shall briefly describe the basis for its conclusion. As further clarified by Section 15065 of the CEQA Guidelines, "cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. If the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, 15130(a)(2) of the CEQA Guidelines requires a brief discussion in the EIR of why the cumulative impact is not significant and is not discussed in further detail. Section 15130(a)(3) of the CEQA Guidelines requires supporting analysis in the EIR if a determination is made that a project's contribution to a significant cumulative impact is rendered less than cumulatively considerable and, therefore, is not significant. CEQA recognizes that the analysis of cumulative impacts need not be as detailed as the analysis of project-related impacts, but instead should "be guided by the standards of practicality and reasonableness" (CEQA Guidelines Section 15130[b]). The discussion of cumulative impacts in this EIR focuses on whether the impacts of the 2002 LRDP are cumulatively considerable.

The fact that a cumulative impact is significant on the whole does not necessarily mean that the project-related contribution to that impact, if analysis significant as well. Instead, under CEQA, a project-related contribution to a significant cumulative impact is only significant if the contribution is cumulatively considerable. To support each significance conclusion, the 2002 LRDP EIR provides a detailed cumulative impact analysis, and where project-specific impacts have been identified that, together with the effects of other pending projects, could result in cumulatively significant impacts, these potential impacts are documented

The geographic scope of the cumulative impact analysis varies depending upon the specific environmental issue area being analyzed. For example, the scope of the cumulative impact analysis for aesthetics includes the area that comprises the viewshed that includes UCLA and the on-campus viewshed, whereas the scope of the cumulative impact analysis for hydrology and water quality includes the Stone Canyon and Ballona Creek Watersheds. In addition to describing the geographic scope of analysis, where appropriate, each section also designates the cumulative context within the designated geographic area, which relates to the amount and type of growth that is anticipated to occur within the geographic area. Finally, and where appropriate to the analysis in question, cumulative impacts are assessed with reference to a list of off-campus "related projects," as described by CEQA Guidelines §15130(b).

A variety of off-campus, related projects within a two-mile radius of campus, which are reflected by Table 4-1 (Off-Campus Related Projects within a 2-Mile Radius) and includes those projects that are (1) completed but not fully occupied, (2) currently under construction or beginning construction, (3) proposed with applications on file at the City of Los Angeles, or (4) reasonably foreseeable. The 2-mile radius is intended to capture all of the study area intersections considered in the traffic analysis for the 2002 LRDP.

Table 4-1 Off-Campus Related Projects within a 2-Mile Radius

No.	Description	Location	MDU[1]	Retail Employees	Nonretail Employees	Total Employees
1	19,000 sf Whole Foods Supermarket	1050 Gayley Ave.	0	235	0	235
	937 seat Movie Theater (Previous Use)		0	(28)	0	(28)
	10,500 sf Restaurant (Previous Use)		0	(23)	0	(23)
			0	*184*	*0*	*184*
2	115,000 sf Shopping Center	1001 Tiverton Ave.	0	253	0	253
	350 DU Apartment		350	0	0	0
			350	*253*	*0*	*253*
3	19 DU Apartment	10852 Lindbrook Ave.	19	0	0	0
	6,100 sf Specialty Retail		0	13	0	13
	16,100 sf Specialty Retail (Previous Use)		0	(35)	0	(35)
			19	*(22)*	*0*	*(22)*
4	107 DU Condominium	10804 Wilshire Blvd.	107	0	0	0
5	6 Pump Gas Station w/ Convenience Market	10991 Santa Monica Blvd.	0	22	0	22
6	71,000 sf Century City Shopping Center	10250 Santa Monica Blvd.	0	156	0	156
7	791,000 sf General Office	10270 Constellation Blvd.	0	0	3,164	3,164
8	ABC Entertainment Center	2000 Avenue of the Stars	0	(487)	1,724	1,238
9	360,000 sf Fox Studio Expansion (remainder est.)	10201 W. Pico Blvd.	0	0	1,440	1,440
10	2,300 sf Fast-Food Restaurant w/ Drive-thru	11021 W. Pico Blvd.	0	5	0	5
11	74,653 sf Office Building	11110 W. Pico Blvd.	0	0	299	299

Table 4-1 Off-Campus Related Projects within a 2-Mile Radius

No.	Description	Location	MDU[1]	Retail Employees	Nonretail Employees	Total Employees
12	330,000 sf Office	12233 W. Olympic Blvd.	0	0	1,320	1,320
	41,000 sf Office (Previous Use)		0	0	(164)	(164)
	6,000 sf Specialty Retail (Previous Use)		0	(13)	0	(13)
	16 Pump Gas Station (Previous Use)		0	(66)	0	(66)
			0	*(79)*	*1,156*	*1,077*
13	1,140 sf Retail (Alcohol Permit)	11305 Santa Monica Blvd.	0	(3)	0	(3)
14	Harvard-Westlake Middle School (24 net students and 15 net employees)	700 N. Faring Rd.	0	0	15	15
15	95,000 sf Office	Wilshire Blvd. and Santa Monica Blvd.	0	0	380	380
	9,633 sf Retail (Previous Use)		0	(21)	0	(21)
			0	*(21)*	*380*	*359*
16	20 DU Condominium	137–147 Spalding Dr.	20	0	0	0
17	15,000 sf Shopping Center	421–527 N. Beverly Dr.	0	33	0	33
	15,000 sf Office		0	0	60	60
			0	*33*	*60*	*93*
18	15,000 sf Shopping Center	339 N. Rodeo Dr.	0	33	0	33
19	5,000 sf Shopping Center	360 N. Rodeo Dr.	0	11	0	11
20	41,500 sf Office	233–269 N. Beverly Dr.	0	0	166	166
21	54,313 sf Shopping Center	11711 San Vicente Bl.	0	119	0	119
22	1,900 sf Fast Food Restaurant w/ Drive-Thru	11712 San Vicente Bl.	0	4	0	4
23	146,708 sf Office	11677 Wilshire Bl.	0	0	587	587

1. MDU = Multiple Dwelling Unit

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, September 2002

References

This section identifies sources relied upon for each environmental topic area analyzed in this document (Sections 4.1 through 4.14). In addition, a comprehensive list of all sources referenced in this EIR is also provided in Chapter 8 (References).

4.1 AESTHETICS

This section describes the visual setting of the UCLA campus and evaluates the potential for changes in visual character due to development under the 2002 LRDP. The 2002 LRDP is a land use plan that guides the physical development of the campus. It is not an implementation plan and does not constitute a commitment to any specific project. Therefore, the environmental analysis for the 2002 LRDP is programmatic, rather than project-specific, as the actual sites and design of future buildings are undetermined. However, each major building proposal undertaken during the planning horizon of the LRDP will require project-specific environmental review in accordance with CEQA.

This section analyzes the general effects of 1.7 million gross square feet (gsf) of development on campus, including the potential loss of existing visual resources, such as landscaping and mature trees, effects on views, compatibility with visual characteristics of surrounding land uses, and the likelihood that adjacent uses (sensitive receptors) would be disturbed by light and glare generated or reflected by new structures. Data used to prepare this section was taken from various sources, including site visits, previous environmental documentation prepared for the UCLA campus, and other campus data sources. Full bibliographic entries for all reference material are provided in Section 4.1.5 (References) of this section.

The University received no comment letters related to potential aesthetic impacts in response to the Notice of Preparation circulated for the project.

4.1.1 Environmental Setting

The campus is located at the base of the foothills of the Santa Monica Mountains in a highly developed urban environment. The area is characterized by undulating topography that ranges in elevation from approximately 320 to 560 feet above sea level, generally sloping from north to south.

Visual Characteristics of the Surrounding Area

As discussed in Section 4.8 (Land Use and Planning), the neighborhoods surrounding the campus include Bel Air to the north, Holmby-Westwood to the east, and Westwood Hills and the North Village to the west. These neighborhoods primarily consist of single-family residences, with low- to mid-rise multi-family residences in the North Village. Marymount High School is adjacent to the campus on the north. To the south are Westwood Village and the Wilshire Corridor, which primarily consist of retail stores and businesses in mid- to high-rise office buildings, with low- to mid-rise multi-family residences located south of Wilshire Boulevard. To the west is the Los Angeles National Cemetery. The campus is visible from the adjacent residential neighborhoods to the north, east, and west; several major roadways, including the San Diego Freeway and Sunset Boulevard; and Westwood Village to the south. Figure 4.8-1 (Surrounding Land Uses) in Section 4.8 (Land Use and Planning) illustrates land uses immediately surrounding the campus.

Visual Characteristics of the Campus

While the northern campus consists of academic buildings, including the historic core, and landscaped open areas, the southern campus is considerably more dense and urban in appearance. A majority of the campus is organized around a series of quadrangles and courtyards linked by pedestrian walkways. The original site plan for the campus shows buildings arranged in the shape of a cross along east/west and north/south axes, which formed the original basis for the orientation of landscaped open areas. Most of the campus edges are heavily landscaped with mature trees and shrubs that screen views of campus buildings.

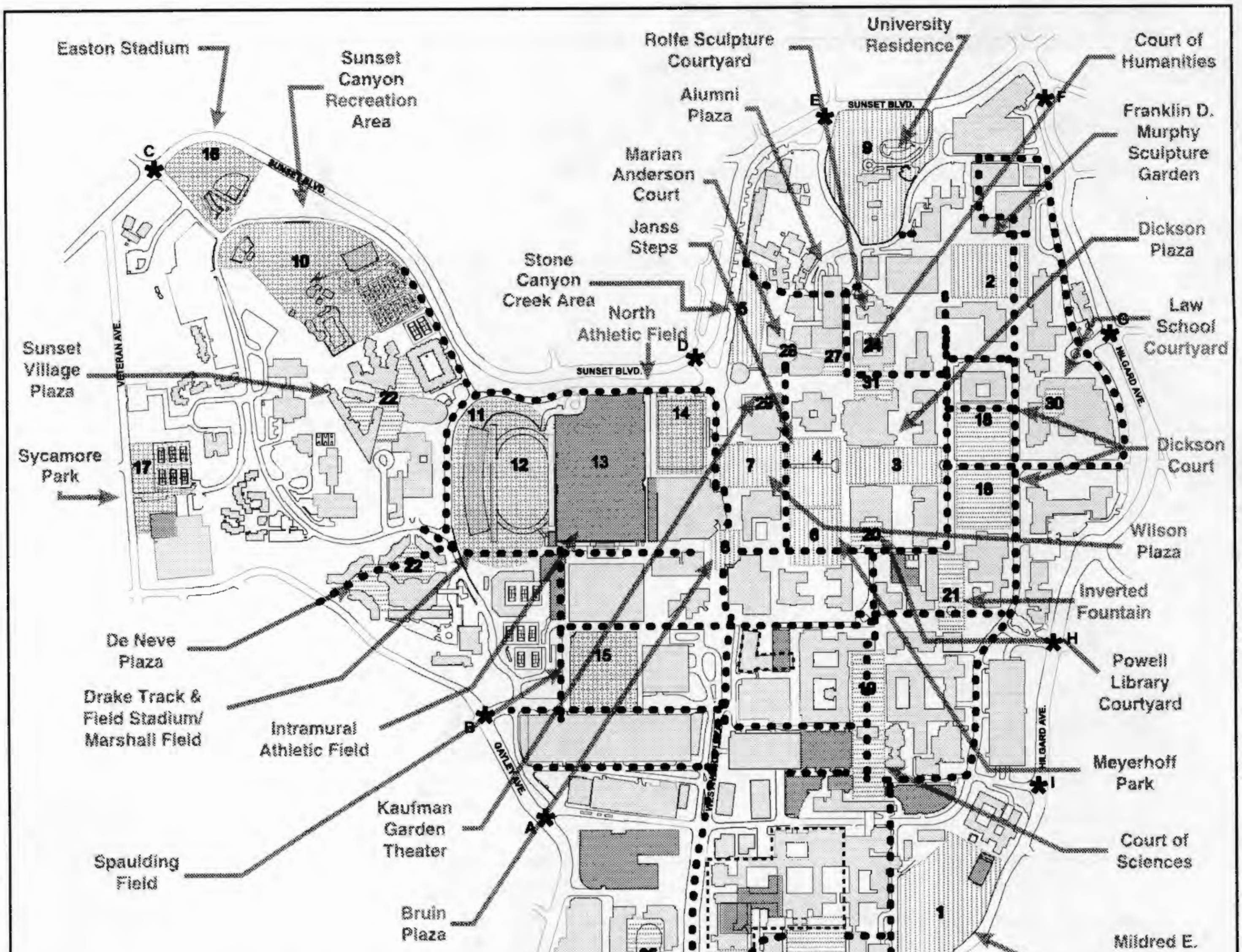
Campus Landscaping

Refer to Volume 3, Chapter II (Text Changes)

The UCLA campus was originally located on a treeless, chaparral-covered site. Landscaping of the campus began in 1925, with approximately 3,600 trees planted by 1928. Professor J.W. Gregg originally designed the landscape to create what was referred to as the "California look." Ralph D. Cornell was appointed Campus Landscape Architect in 1937 and continued to serve UCLA as a consultant until 1972. His firm (Cornell, Bridgers, Troller, and Hazlett) designed many of the major landscape projects on campus, including numerous basic features that provide a unifying landscape motif, although most of the initial plantings have been modified over the last seven decades as the campus evolved from its beginnings to the internationally recognized teaching, research, and public service institution it is today. Along with pedestrian pathways and open areas, the ornamental landscaping continues to complement the different styles of architecture found on campus. Several areas of lush landscaping are found within the University's grounds; however, the majority of the plant life on the campus is ornamental, rather than native, and all vegetation has been introduced coincident with the development of buildings.

Open Areas on Campus

Open spaces at UCLA, which primarily consist of plazas, courts, gardens, walkways, recreational areas, campus entries, and other visual resources, are essential components of the aesthetic and social life of the campus. Figure 4.1-1 (Open Space and Pedestrian Pathways) illustrates various significant open spaces



SOURCE: UCLA

FIGURE **4.1-1**

Open Space and Pedestrian Pathways

located throughout the campus. This figure provides numbers and/or letters to correspond to the preserves, recreational open areas, formal open areas, and campus entries described below. Chapter 3 (Project Description) of this document provides a full description of these open areas. In addition, numerous pedestrian pathways serve as important linkages between all campus zones and buildings.

Preserves

Several campus open spaces have been developed to an exceptional level of spatial and aesthetic excellence or hold cherished places in campus history and tradition. The 2002 LRDP maintains these as open space preserves through the planning horizon. They include the following:

1. Mildred E. Mathias Botanical Garden
2. Franklin D. Murphy Sculpture Garden
3. Dickson Plaza
4. Janss Steps
5. Stone Canyon Creek Area
6. Meyerhoff Park
7. Wilson Plaza
8. Bruin Plaza
9. University Residence

Figures 4.1-2 and 4.1-3 (Open Space Preserves) show some of the open preserves, including Janss Steps/Meyerhoff Park, the Franklin D. Murphy Sculpture Garden, Wilson Plaza, and Bruin Plaza.

Recreational Open Areas

Recreational open areas are important to the health and quality of life of the campus community. Major recreational spaces located in the Central and Northwest zones include:

10. Sunset Canyon Recreation Area
11. Drake Track & Field Stadium
12. Marshall Field
13. Intramural Field
14. North Athletic Field
15. Spaulding Field
16. Easton Stadium
17. Sycamore Park

Janss Steps/Meyerhoff Park

Franklin D. Murphy Sculpture Garden

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-2**

Open Space Preserves

Wilson Plaza

Bruin Plaza

Not to Scale

SOURCE: EIP Associates

10328-07

EIP ASSOCIATES

FIGURE **4.1-3**

Open Space Preserves

An open lawn area and multi-purpose recreation facility are planned for the Southwest zone in conjunction with Phase 2 of the Southwest Campus Housing and Parking project, which is anticipated to begin construction after 2005. Phase 1 of the Southwest Campus Housing and Parking Project has already begun construction. The 2002 LRDP also includes a project-specific proposal to provide additional housing in the Northwest zone of the campus that would also provide a multi-purpose recreational facility, nonspectator basketball and volleyball courts, a pool, and a leisure/recreation grass area. The Northwest Housing Infill Project is further discussed and evaluated in Volume 2 of this document.

The photographs in Figure 4.1-4 (Recreational Open Areas) illustrate the Sunset Canyon Recreation Center in the Northwest zone of campus, which is a multi-purpose recreational open area, as well as Spaulding Field, one of the many athletic fields on campus.

Formal Open Areas

Some formal courtyards, plazas, and open spaces also provide valuable open areas. These include the following:

18. Dickson Court
19. Court of Sciences
20. Courtyard South of Powell Library
21. Inverted Fountain
22. Sunset Village Plaza and De Neve Plaza
23. UCLA Medical Center Plazas
24. Rolfe Sculpture Courtyard
25. UCLA Medical Plaza
26. Stein Plaza
27. Alumni Plaza
28. Marian Anderson Court
29. Kaufman Garden Theater
30. Law School Courtyard
31. Court of Humanities

Figures 4.1-5 and 4.1-6 (Formal Open Areas) provide examples of some of the numerous formal courtyards and plazas provided on campus.

Sunset Canyon Recreation Center

Spaulding Field

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-4**

Recreational Open Areas

UCLA 2002 LRDP

Court of Sciences

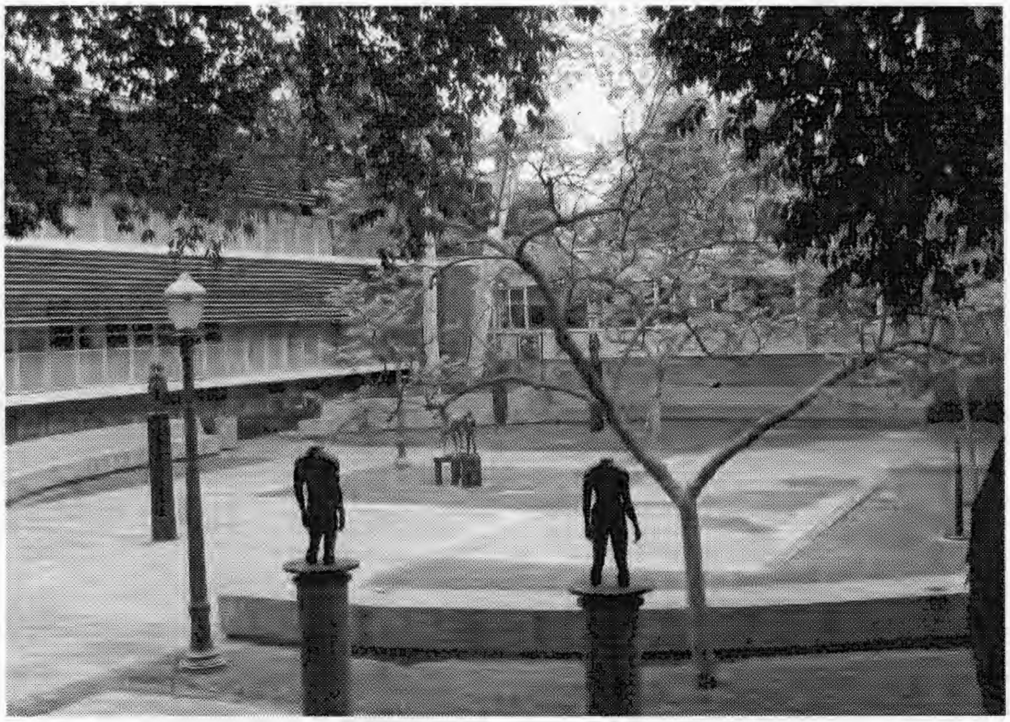
Inverted Fountain

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE 4.1-5
Formal Open Areas



Rolfe Sculpture Courtyard

Marian Anderson Court

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-6**

Formal Open Areas

UCLA 2002 LRDP

Campus Entries

Campus entries function as areas of interface with off-campus uses. The major entry to the campus is the "Gateway," which is the main entrance to the campus from the south, located at the intersection of Le Conte Avenue and Westwood Plaza. Figure 4.1-7 (Campus Entries) depicts campus entrances from Sunset Boulevard and the Gateway at Westwood Plaza/Le Conte Avenue. Other campus entries include the following:

A. Charles E. Young Drive South at Gayley Avenue
B. Strathmore Drive at Gayley Avenue
C. Bellagio Drive at Sunset Boulevard
D. Westwood Boulevard at Sunset Boulevard
E. Royce Drive at Sunset Boulevard
F. Comstock Avenue at Hilgard Avenue
G. Wyton Drive at Hilgard Avenue
H. Westholme Avenue at Hilgard Avenue
I. Manning Avenue at Hilgard Avenue
J. Tiverton Drive at Le Conte Avenue
K. Kinross Plaza at Veteran Avenue (under construction)

Edge Conditions

Most of the main campus edges are heavily landscaped with mature trees and shrubs. These landscaped buffers screen campus buildings from adjacent streets and complement the adjacent residential areas, as illustrated by Figures 4.1-8 through 4.1-11 (Campus Edges). Landscaping and signage are located at the corners of Sunset Boulevard and Veteran Avenue and at Gayley Avenue and Veteran Avenue. In addition, major landscaping improvements have been completed along the western edge of the campus along Veteran and Gayley Avenues. The edges of the campus are planted with mature eucalyptus, Canary Island pines, and camphor trees that enhance the visual quality of the campus borders. Planned landscaping along the Veteran Avenue and Wilshire Boulevard boundaries of Parking Lot 32 will consist of camphor trees and is scheduled for completion in the summer of 2002. Planned landscaping along the Kinross Plaza is scheduled for completion in 2004.

Refer to Volume 3, Chapter II (Text Changes)

Campus Entry along Sunset Boulevard

"Gateway" at Westwood Plaza/Le Conte Avenue

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-7**
Campus Entries

UCLA 2002 LRDP


Campus Edge Looking South along Veteran Avenue


Campus Edge Looking North along Veteran Avenue

Not to Scale

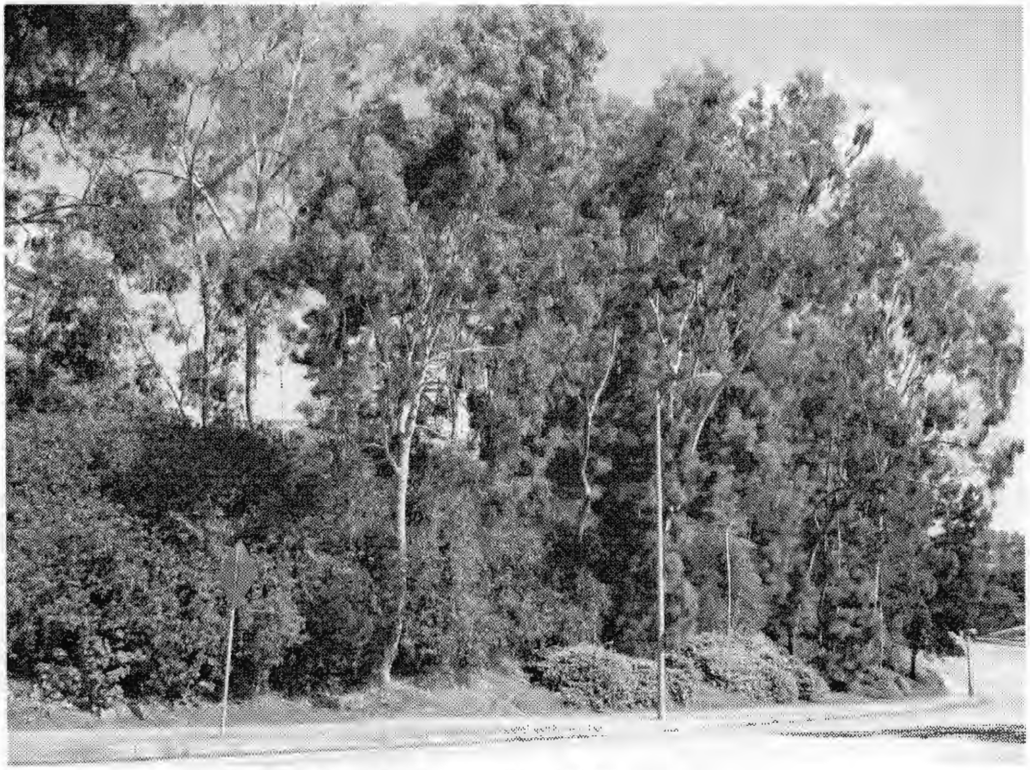
SOURCE: EIP Associates

10328-07

FIGURE **4.1-8**
Campus Edges

UCLA 2002 LRDP

North Edge of Campus with Pedestrian Path Adjacent to Sunset Boulevard Looking West



Campus Edge Looking North along Hilgard Avenue

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-9**
Campus Edges

Campus Edge Looking West along Sunset Boulevard
(UCLA campus on the left)

Campus Edge Looking South along Hilgard Avenue
(UCLA campus on the right)

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-10**
Campus Edges

Campus Edge Looking South along Gayley Avenue
(UCLA campus on the left)

Campus Edge Looking North along Veteran Avenue
(UCLA campus on the right)

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-11**
Campus Edges

Campus Design Policies

The UCLA campus utilizes a design review process for all campus development projects prior to approval. This design process is performed through various campus committees and includes evaluation of factors such as the proposed site, compatibility with adjacent uses, building mass and form, roof profile, architectural details and fenestration, texture, color, quality of building materials, landscaping, and focal views that could be affected by each proposed project. Figure 4.1-12 (Romanesque Architecture [Core Campus]), Figure 4.1-13 (Sculpture and Cascading Water Features), and Figure 4.1-14 (Landscaping and Pedestrian Pathways) illustrate examples of campus architecture in the historic core of campus, the integration of building and site, the incorporation of sculpture and cascading water features, and landscaping and pedestrian linkages, all essential or unique elements of campus design. The campus design review process ensures that the physical planning objectives described in detail in Section 3.3.2 (Physical Objectives) of this EIR are incorporated into each project proposal to the maximum extent feasible.

4.1.2 Regulatory Framework

Federal

There are no federal aesthetics regulations applicable to the 2002 LRDP.

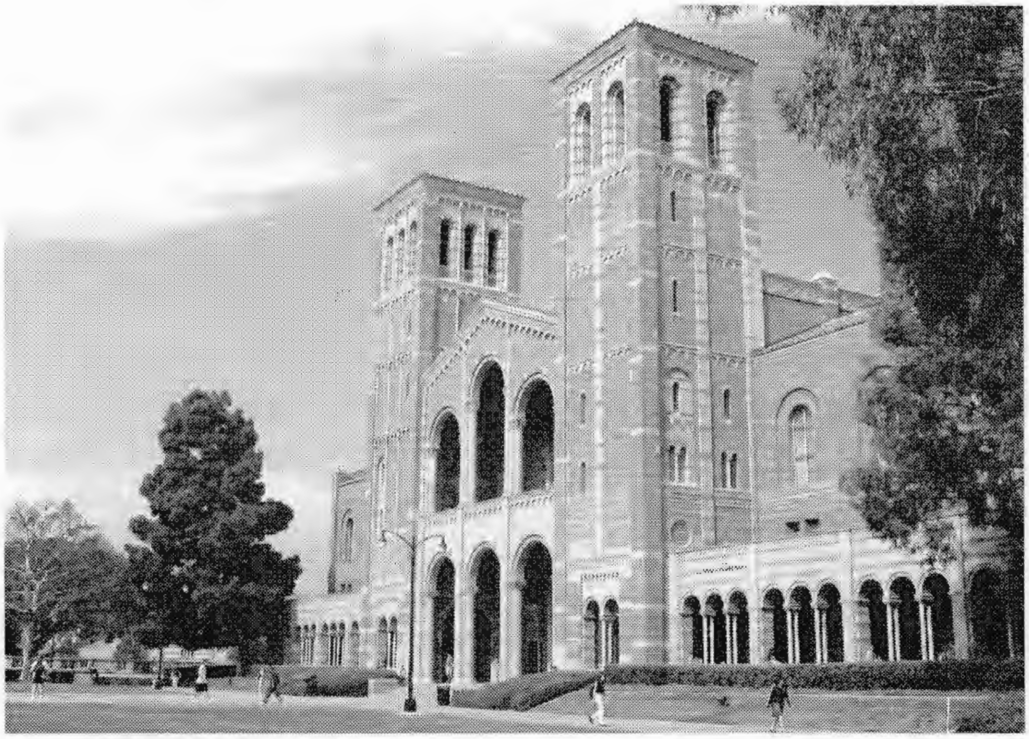
State

There are no State aesthetics regulations applicable to the 2002 LRDP.

4.1.3 Project Impacts and Mitigation

Analytic Method

The analysis of visual impacts focuses on the nature and magnitude of changes in the visual character of the campus due to development under the 2002 LRDP, including the visual compatibility of on-campus and adjacent uses, and public vantage points where visual changes would be evident, and the introduction of sources of light and glare. Site visits by EIP personnel during June and July 2002 documented the existing visual character and context of the campus. Visual change that is compatible with existing patterns of development would not be considered to constitute a significant impact.



Royce Hall

Royce Hall

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-12**

Romanesque Architecture (Core Campus)

Franklin D. Murphy Sculpture Garden

Cascading Water Feature at the Top of Janss Steps

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-13**

Sculpture and Cascading Water Features

Meyerhoff Park

Bruin Walk

Not to Scale

SOURCE: EIP Associates 10328-07

EIP ASSOCIATES

FIGURE **4.1-14**

Landscaping and Pedestrian Pathways

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on aesthetics if it would result in any of the following:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare on campus or in the immediate vicinity that would adversely affect day or nighttime views in the area

Effects Not Found to Be Significant

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

Scenic vistas may generally be described in two ways: panoramic views (visual access to a large geographic area, for which the field of view can be wide and extend into the distance) and focal views (visual access to a particular object, scene, setting, or feature of interest). Panoramic views were determined to be an Effect Not Found to Be Significant in the Initial Study for the 2002 LRDP, and impacts are summarized in the immediately following paragraphs. The Initial Study determined that focal views may be affected by development under the 2002 LRDP, and they are analyzed in Impact LRDP 4.1-1.

As described in the Initial Study, panoramic views are typically associated with vantage points that provide a sweeping geographic orientation not commonly available. Examples of panoramic views include urban skylines, valleys, mountain ranges, or large bodies of water.

Views of the Santa Monica Mountains may be available from some of the taller buildings along Wilshire Boulevard and within the campus itself. However, from many of these vantage points, views are at least partially blocked by surrounding development. In addition, visible portions of the Santa Monica Mountains are developed with residential and commercial land uses. There are no panoramic views of a pristine undeveloped mountain range. However, to the extent that the landform itself is considered a visual resource, development under the 2002 LRDP could provide additional view opportunities through the provision of additional buildings on campus. Further, development under the 2002 LRDP would not result in a substantial adverse effect on panoramic views through continued implementation of campus design policies that avoid the uniform blockage of existing views.

While views to the campus would not typically be considered an urban skyline, the campus is unique when viewed from off-campus locations due to the predominance of landscaping in an otherwise urban area and the consistency of the architectural palette. Views of the campus are held from some of the high-rise buildings along the Wilshire Corridor, from other more distant locations, such as the Getty Museum, as well as from residences at higher elevations to the north of Sunset Boulevard. Even from those vantage points where the campus may be visible, because significant areas of landscaping and open space would be maintained, as required by PP 4.1-2(d), projects under the 2002 LRDP are not expected to significantly alter views from these vantage points. Furthermore, the potential aesthetic impacts of individual projects will be evaluated through the campus design process, as required by PP 4.1-1(a), to ensure preservation and enhancement of the visual character and quality of the campus and the surrounding area.

There are no panoramic views of large bodies of waters or valleys from any location on campus. Development of additional academic and support uses would not fundamentally alter panoramic views to or from the campus, and the Initial Study concluded that no further analysis is required in this EIR.

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

No State-designated scenic highways are located near the UCLA campus, according to the California Department of Transportation (Caltrans). With respect to scenic corridors, although the Westwood Community Plan component of the Los Angeles Citywide General Plan Framework designates a portion of Wilshire Boulevard as a scenic corridor, this designation does not extend to the Wilshire Boulevard frontage of UCLA between Veteran Avenue and Gayley Avenue. The designated corridor terminates just east of Glendon Avenue.

Sunset Boulevard, which traces the northern boundary of the UCLA campus, is identified as a scenic highway in the Transportation Element of the Los Angeles General Plan (1997 amendment); however, the City has not adopted a Corridor Plan for Sunset Boulevard. In the absence of an adopted Corridor Plan, the Transportation Element contains Scenic Highways Guidelines to guide future development that may affect a scenic highway. These guidelines cover specific roadway design, earthwork/grading activities, and planting/landscaping requirements within the public right-of-way; use of signs and outdoor advertising; and the placement of utilities. Development under the 2002 LRDP would not conflict with the Scenic Highways Guidelines for Sunset Boulevard.

The campus does not contain or otherwise have views of rock outcroppings. Impact LRDP 4.1-2 analyzes impacts to on-campus landscaping, while Impact LRDP 4.3-1 and Impact LRDP 4.3-2 analyze impacts to nesting habitat (i.e., trees) for resident and migratory avian species of special concern and raptors. Impacts to historic buildings are addressed in Impacts LRDP 4.4-1 and 4.4-2 of Section 4.4 (Cultural Resources). The Initial Study concluded that no additional analysis of scenic resources would be required in this EIR.

Impacts and Mitigation

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

Impact LRDP 4.1-1 **Implementation of the 2002 LRDP would not have a substantial adverse effect on a scenic vista (focal views). This is considered a *less-than-significant* impact.**

Views of scenic vistas may be generally described in two ways: panoramic views (visual access to a large geographic area for which the field of view can be wide and extend into the distance) and focal views (visual access to a particular object, scene, setting, or feature of interest). Panoramic views were determined to be an Effect Not Found to Be Significant in the Initial Study for the 2002 LRDP; therefore, views on campus that may be affected by development under the 2002 LRDP would be limited to focal views.

For purposes of this analysis, focal views are defined to include views of natural landforms, public art/signs, and visually important structures, such as historic buildings (City of Los Angeles CEQA Thresholds Guide 2001). Impacts related to the visual character or quality of the campus and the immediately surrounding area are discussed in Impact LRDP 4.1-2.

Focal views on campus would include views of outdoor public art spaces, including the Franklin D. Murphy Sculpture Garden and the Rolfe Sculpture Courtyard, as well as historic buildings, such as Royce Hall, Powell Library, Haines Hall, Kinsey Hall, and other structures located in the campus historic core (in the Core Campus zone), which contains the first major campus buildings. There are no significant natural landforms on campus.

PP 4.1-1(b) requires that certain open spaces that are integral to the fabric of the campus be maintained as preserves for the 2002 LRDP planning horizon. One of these preserves is the Franklin D. Murphy

Sculpture Garden, which is the largest outdoor public art area on campus. If development is proposed adjacent to Franklin D. Murphy Sculpture Garden, other public art spaces (such as the Rolfe Sculpture Courtyard), or near the campus historic core, the design process required by PP 4.1-1(a) shall evaluate the impacts of the proposed structure(s) on views of these spaces and incorporate design features to ensure that focal views are preserved and/or enhanced and that a less-than-significant impact occurs. In addition, PP 4.1-1(a) and PP 4.1-1(c) provide that new building projects shall be sited to ensure compatibility with adjacent uses (which may include outdoor public art areas and/or historic buildings).

While much of the proposed development under the 2002 LRDP would occur in the Core Campus zone, which contains the campus historic core, PP 4.1-1(d) requires that the integrity of the campus historic core shall be maintained, thereby ensuring that impacts on views of historic buildings in the campus historic core would remain less than significant

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.1-1(a) *The design process shall evaluate and incorporate, where appropriate, factors including, but not necessarily limited to, building mass and form, building proportion, roof profile, architectural detail and fenestration, the texture, color, and quality of building materials, focal views, pedestrian and vehicular circulation and access, and the landscape setting to ensure preservation and enhancement of the visual character and quality of the campus and the surrounding area. Landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) shall be integrated with development to encourage use through placement and design.* (This is identical to Land Use PP 4.8-1(a).)

PP 4.1-1(b) *The Mildred E. Mathias Botanical Garden, Franklin D. Murphy Sculpture Garden, Dickson Plaza, Janss Steps, Stone Canyon Creek area, Meyerhoff Park, Wilson Plaza, Bruin Plaza, and the University Residence shall be maintained as open space preserves during the 2002 LRDP planning horizon.*

PP 4.1-1(c) *New building projects shall be sited to ensure compatibility with existing uses and the height and massing of adjacent facilities.* (This is identical to Land Use PP 4.8-1(h).)

PP 4.1-1(d) *The integrity of the campus historic core shall be maintained.* (This is identical to Cultural Resources PP 4.4-1(b) and Land Use PP 4.8-1(g).)

Following PP 4.1-1(a) through PP 4.1-1(d) would ensure that impacts to focal views remain less than significant through project design focused on preserving and enhancing the visual character and quality of the campus and surrounding area, preservation of open space preserves and the campus historic core, and a site-specific evaluation of impacts of individual development on focal views. No mitigation is required.

Threshold	Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Impact LRDP 4.1-2 **Implementation of the 2002 LRDP would not substantially degrade the visual character or quality of the campus and the immediately surrounding area. This is considered a *less-than-significant* impact.**

Development under the 2002 LRDP, which would allow for up to 1.71 million gsf of development previously allocated under the 1990 LRDP, could occur in less developed areas, on previously undeveloped sites, or as a result of demolition of existing obsolete buildings. Therefore, visual quality impacts related to the general character of future project sites (e.g., loss of open space areas), components of their visual settings (e.g., architectural styles or mature landscaping), and the visual compatibility between proposed campus uses and adjacent land uses could occur. Determining the significance of visual impacts is inherently subjective, because individuals respond differently to changes in the visual characteristics of an area.

Development under the 2002 LRDP would intensify land use in some areas of campus and could result in visual quality impacts, depending upon the location, mass, and height of new structures relative to off-campus and/or adjacent land uses. However, the physical planning objectives embodied by PP 4.1-1(a) through PP 4.1-1(d), as previously described, would ensure that the existing visual quality of the campus is maintained. In addition, PP 4.1-2(a) and PP 4.1-2(b) require that new development be designed to complement existing architectural styles, thereby creating a visually compatible environment. PP 4.1-2(c) also specifically requires that development on the southern edge of campus be designed to enhance the campus interface with Westwood Village.

Future development on campus could also remove or alter landscaping or open areas to accommodate new or expanded buildings, improve infrastructure, or allow for construction activities. MM 4.1-2 requires that a tree replacement plan be prepared for each project proposed under the 2002 LRDP in conjunction with CEQA documentation. This mitigation measure is identical to MM 4.3-1(c), which is necessary to reduce potentially significant biological resource impacts related to loss of nesting habitat for migratory avian species of special concern to a less-than-significant level. However, because impacts to the visual character or quality of the campus are less than significant, this MM would ensure that this less-than-significant impact is maintained. PP 4.1-2(d) requires the inclusion of landscaping in all on-campus development projects, and PP 4.1-2(e) specifically requires the provision of a landscaped buffer along the western, northern, and eastern edges of the campus to complement the residential uses of the surrounding community and to provide an attractive perimeter that effectively screens and enhances future development. Landscaping affected by construction would be replaced as required by PP 4.1-2(d), and the campus would continue to respect and reinforce its landscape traditions, as required by PP 4.1-2(b). In addition, the 2002 LRDP maintains certain open spaces that hold cherished places in campus history and tradition or that have been developed to an exceptional level of spatial and aesthetic excellence as preserves, as required by PP 4.1-1(b). These designated preserves include the Mildred E. Mathias Botanical Garden, the Franklin D. Murphy Sculpture Garden, Dickson Plaza, Janss Steps, Stone Canyon Creek area, Meyerhoff Park, Wilson Plaza, Bruin Plaza, and the University Residence. All of the identified PPs and the MM serve to preserve and enhance the visual character and quality of campus and surrounding area by retaining, replacing, and/or improving the features and spaces that are accepted as valuable visual elements of the campus, thereby ensuring that a less-than-significant impact occurs. Preserving open spaces and integrating landscaping with development is also intended to enhance campus linkages by seamlessly integrating hardscape and landscape.

The following mitigation measure shall be implemented:

MM 4.1-2 — *In conjunction with CEQA documentation required for each project proposal under the 2002 LRDP, a tree replacement plan shall be prepared and implemented. The tree replacement plan for each project shall determine the appropriate number of replacement trees in relation to the specific project site characteristics. The tree replacement plan would ensure that the appropriate number of new trees is planted within the available site area so that each tree planted has sufficient space to grow and thrive.* (This is identical to Biological Resources MM 4.3-1(c).)

In addition, the following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.1-2(a) — *Additions to, or expansions of, existing structures shall be designed to complement the existing architectural character of the buildings.*

PP 4.1-2(b) — *The architectural and landscape traditions that give the campus its unique character shall be respected and reinforced.* (This is identical to Land Use PP 4.8-1(f).)

PP 4.1-2(c)	*Development of the southern edge of the main campus shall be designed to enhance the campus interface with Westwood Village.* (This is identical to Land Use PP 4.8-1(b).)
PP 4.1-2(d)	*Projects proposed under 2002 LRDP shall include landscaping.*
PP 4.1-2(e)	*The western, northern, and eastern edges of the main campus shall include a landscaped buffer to complement the residential uses of the surrounding community and to provide an attractive perimeter that effectively screens and enhances future development.* (This is identical to Land Use PP 4.8-1(c).)

Implementation of MM 4.1-2 and following PP 4.1-2(a) through PP 4.1-2(e) and PP 4.1-1(a) through PP 4.1-1(d) would ensure that visual quality impacts remain less than significant through the use of designs that complement existing architectural styles and the incorporation of landscaping, including replacement trees, in all development projects, as well as along the campus periphery.

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

Impact LRDP 4.1-3 **Implementation of the 2002 LRDP could create a new source of substantial light or glare on campus or in the vicinity that would adversely affect day or nighttime views in the area. This is considered a *potentially significant* impact.**

New development under the 2002 LRDP, which could include locations near the perimeter of the campus, as well as areas that are currently undeveloped, could create new sources of light from exterior building illumination, lighted recreation/athletic facilities, and parking lots or structures, as well as glare from reflective building surfaces or the headlights of vehicular traffic. These new sources of light or glare could affect day or nighttime views of adjacent sensitive land uses and result in a potentially significant impact.

There is currently substantial nighttime lighting on campus, as well as in much of the area surrounding the campus, and the addition of new sources of light and glare as a result of implementation of the 2002 LRDP would increase ambient lighting on campus and at the periphery. However, due to the highly developed urban nature of the Westwood community, there is a significant existing amount of ambient light both on campus and in the immediately surrounding area. Therefore, potential impacts of substantial light and glare would be anticipated to occur only on campus or in the immediate vicinity. Lighting for new development projects would be designed, as part of the campus design review process, in such a way as to limit spillover onto adjacent residential land uses by focusing additional light only on the area to be illuminated. By incorporating the design features required by MM 4.1-3(a), such as the use of nonreflective textured surfaces on building exteriors and avoidance of the use of reflective glass, impacts resulting from glare from new development would be reduced to a less-than-significant level. In addition, MM 4.1-3(b) requires that lighting be specifically directed to the intended illumination site to prevent spill onto adjacent residential areas. MM 4.1-3(c) would also shield light and/or glare from vehicles entering or exiting parking structures that face on- or off-campus sensitive uses, such as residences, by providing barriers so that headlights from vehicles would be shielded from these off-campus uses. Further, as required by PP 4.1-2(e), the continued provision of a landscaped buffer along the western, northern, and eastern edges of the main campus would continue to shield and screen light and/or glare on adjacent off-campus residential uses.

The following mitigation measures shall be implemented:

MM 4.1-3(a)	*Design for specific projects shall provide for the use of textured nonreflective exterior surfaces and nonreflective glass.*
MM 4.1-3(b)	*All outdoor lighting shall be directed to the specific location intended for illumination (e.g., roads, walkways, or recreation fields) to limit stray light spillover onto adjacent residential areas. In addition, all lighting shall be shielded to minimize the production of glare and light spill onto adjacent uses.*
MM 4.1-3(c)	*Ingress and egress from parking areas shall be designed and situated so the vehicle headlights are shielded from adjacent uses. If necessary, walls or other light barriers will be provided.*

Implementation of MM 4.1-3(a) through 4.1-3(c) would reduce impacts from light and glare to a less-than-significant level by eliminating or minimizing increased glare by the use of nonreflective glass and nonreflective textured surfaces in all future development, reducing or preventing light spill, and providing barriers to shield vehicle headlights from off-campus uses.

4.1.4 Cumulative Impacts

The geographic context for the analysis of cumulative aesthetic impacts includes areas with views of the UCLA campus, which occur in certain portions of the Westwood, West Los Angeles, Bel Air–Beverly Crest, and Brentwood–Pacific Palisades Community Plan areas. The analysis accounts for all anticipated cumulative growth within this geographic area, as represented by full implementation of the City of Los Angeles General Plan Framework (see Section 4.8 [Land Use and Planning] for definition and discussion) and development of the related projects provided in Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Environmental Analysis).

Cumulative development associated with the implementation of the General Plan Framework (including the related projects) may have a substantial cumulative adverse effect on focal views of a scenic vista. The major natural landforms existing within the geographic area for this analysis are the Santa Monica Mountains. Future development within the Santa Monica Mountains is not anticipated to be extensive, however, it is possible that certain focal views of natural landforms and scenic resources, such as trees, rock outcroppings or scenic highways within the Santa Monica Mountains and elsewhere in the City of Los Angeles could be affected by such development, generally on a site-by-site basis. It is anticipated that the protections afforded to natural scenic resources through the CEQA review process, scenic highway protection requirements, and local design review procedures will be applied, resulting in a less than significant cumulative impact, although it is possible that future loss of individual scenic natural resources could be regarded by some as significant on a cumulative basis. However, as discussed above, the UCLA campus does not contain any rock outcroppings, and would not conflict with City of Los Angeles Scenic Highway Guidelines applicable to the Sunset Boulevard corridor, and the campus is not adjacent to the portion of Wilshire Boulevard designated as a scenic corridor by the City of Los Angeles. Moreover, pursuant to PP 4.1-2(b), the landscape plantings (including trees) that give the campus its unique character will be respected and reinforced. Accordingly, the contribution of the 2002 LRDP to cumulative impacts on focal views of natural scenic resources is not cumulatively considerable. This is considered to be a *less-than-significant* impact.

Focal views of urban features such as public art and signs, or visually important or historic structures, are protected from adverse impact by the City of Los Angeles ordinances, the CEQA review process, and through the application of guidelines for the preservation of visual integrity contained in planning documents such as the General Plan Framework, the Westwood Community Plan, and the Westwood Village Specific Plan. (Cumulative impacts on historic buildings as a cultural resource are analyzed in Section 4.4 of this EIR, and are concluded to be less than significant.) However, although future development is anticipated to comply to the extent feasible with these ordinances and guidelines, significant impacts could occur to these unique focal views as a result of a specific development project, and thus contribute to a cumulative impact that could be regarded as significant. As discussed above under Impact 4.1-1, the 2002 LRDP will continue to implement programs and practices to preserve the existing architectural character of the campus and to maintain existing areas of special interest and aesthetic quality on campus. Moreover, as discussed in Section 4.4 of this EIR, development under the 2002 LRDP will not have a significant impact on on-campus historic resources. As a result, the contribution of the 2002 LRDP to impacts on focal views of urban features, including historic buildings, is not cumulatively considerable. This is considered to be a *less-than-significant* impact.

Full implementation of the General Plan Framework and the table of proposed projects in the subject area is not likely to result in a cumulatively significant impact in terms of a substantial degradation of the visual character or quality of the area. Future development will continue to be guided by the General Plan Framework. Consequently, no changes in the nature or land use of the various neighborhoods that would substantially degrade the area would be permitted to occur under the General Plan Framework and CEQA requirements, thereby protecting the visual character of these areas. Additionally, the Westwood Community Plan ensures that development occurs consistent with its surroundings, in terms of massing, building heights, and aesthetics. None of the projects proposed to occur in the area would result in the substantial degradation of the visual quality of the area, and thus cumulative impacts in this regard would be less than significant. Moreover, the contribution of the 2002 LRDP to such cumulative impacts would also be less than significant. More than half of the development under the 2002 LRDP will occur in the Core Campus and Northwest zones of campus. These zones are shielded from view from the surrounding neighborhoods in large part by landscaping and other buffers, which surround the campus. Development in the remaining zones, such as the Bridge, Health Sciences, and Southwest zones, will occur adjacent to areas that are fully developed dense multi-family residential, urban, or commercial in nature. The 2002 LRDP includes many campus procedures regarding the planning and design of development; this would ensure that the contribution of the 2002 LRDP is less than significant. (Even if future projects were to be determined to result in a future cumulative impact, as some might conclude, the contribution of the 2002 LRDP would not be cumulatively considerable for the reasons stated above.) This is considered to be a *less-than-significant* impact.

Much of the subject geographic area is composed of single- and multi-family residential neighborhoods that could be sensitive to increases in light or glare. Consequently, growth representing full implementation of the General Plan Framework and off-campus related projects of Table 4-1 could result in the creation of new sources of substantial light or glare that could affect day or nighttime views. With regard to nighttime views, most development in the area would likely be concentrated in areas that already contain higher densities and commercial development, such as along Wilshire Boulevard or in Westwood Village. These areas already have considerable amounts of nighttime light and added light there will not substantially penetrate into residential communities, due to the separation of these types of land uses. However, additional development may substantially increase daytime glare due to an increase in the number of windows and uncertainty as to the type of building materials that future development will use. Consequently, a cumulatively significant impact could occur. However, the contribution of the 2002 LRDP will not be cumulatively considerable with regard to a substantial new source of light and glare. Development of the 2002 LRDP will occur on campus, which is shielded from surrounding land uses by landscaping and buffers, and already is a source of nighttime illumination. For development occurring on the edge of campus and next to other land uses, shielding, in combination with buffers and landscaping, will reduce impacts to off-campus land uses from nighttime lighting and vehicle headlights. With regard to glare impacts, a campus practice that requires the use of nonreflective glass and textured materials will also reduce glare. Consequently, potential light and glare impacts of the 2002 LRDP would be reduced and would not be cumulatively considerable. This is regarded to be a *less-than-significant* impact.

4.1.5 References

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4.2 AIR QUALITY

This section evaluates the potential impacts on air quality resulting from implementation of the 2002 LRDP. This includes the potential for the 2002 LRDP to conflict with or obstruct implementation of the applicable air quality plan, to violate an air quality standard or contribute substantially to an existing or projected air quality violation, to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is not in attainment, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people. This section further analyzes the potential of the 2002 LRDP to result in a significant increase in the risks of carcinogenic and noncarcinogenic health effects from airborne emissions.

Data used to prepare this section were taken from various sources, including the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook* and the 1997 Air Quality Management Plan (AQMP), as amended; the UCLA Long Range Development Plan Transportation Systems Analysis (TSA) (included as Appendix 4); and the Health Risk Assessment (HRA) in Support of the Long Range Development Plan Update for the University of California, Los Angeles (included as Appendix 7). Full bibliographic entries for all reference materials are provided in Section 4.2.5 (References) of this section.

A comment letter issued in response to the Notice of Preparation circulated for the project was received from the Southern California Association of Governments (SCAG). The comment letter requested that the EIR address the consistency of the 2002 LRDP with core air quality policies from the *Regional Comprehensive Plan and Guide* (RCPG). This analysis is contained in Section 4.8 (Land Use and Planning), Impact LRDP 4.8-2, and is summarized later in this section.

4.2.1 Environmental Setting

Climate

The UCLA campus is located within the South Coast Air Basin (Basin), named so because its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. This area includes all of Orange County and the nondesert portions of Los Angeles, San Bernardino, and Riverside Counties. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity.

The UCLA campus is located on the west side of the City of Los Angeles. The annual average temperature at the campus ranges from 47 to 75 degrees Fahrenheit (°F), although temperatures can exceed 100°F on an occasional basis. The area also experiences a typical daily wind pattern that is a daytime onshore sea breeze (from the west) and a nighttime land breeze. This regime is broken only by occasional winter storms and infrequent strong northeasterly (from the northeast) Santa Ana winds from the mountains and deserts north of the Basin. On practically all spring and early summer days, the daily wind patterns flush much of the Basin of high levels of air pollutants. From late summer through the winter months, the flushing is less pronounced because of lighter wind speeds.

Air Quality Background

Air pollutant emissions within the Basin are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources are usually subject to a permit to operate from the SCAQMD, occur at a specific identified location, and are usually associated with manufacturing and industry. Examples of point sources are boilers or combustion equipment that produce electricity or generate heat, such as heating, ventilation, and air conditioning (HVAC) units. Area sources are widely distributed and produce many small emissions, and they do not require permits to operate from the SCAQMD. Examples of area sources include residential and commercial water heaters, painting operations, portable generators, lawn mowers, agricultural fields, landfills, and consumer products, such as barbeque lighter fluid and hair spray, the area-wide use of which contributes to regional air pollution. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources are those that are legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, racecars, and construction vehicles. Mobile sources account for the majority of the air pollutant emissions within the Basin. Air pollutants can also be generated by the natural environment such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and State governments have established ambient air quality standards for outdoor concentrations of specific pollutants, referred to as "criteria pollutants," in order to protect public health. The national and State ambient air quality standards have been set at concentration levels to protect the most sensitive persons from illness or discomfort with a margin of safety. Applicable ambient air quality standards are identified later in this EIR section. The SCAQMD is responsible for bringing air quality within the Basin into attainment with the national and State ambient air quality standards.

The criteria pollutants for which federal and State standards have been promulgated and that are most relevant to air quality planning and regulation in the Basin are ozone, carbon monoxide, fine suspended particulate matter, sulfur dioxide, and lead. In addition, toxic air contaminants are of concern in the Basin. Each of these is briefly described below.

- *Ozone* is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOx), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- *Carbon Monoxide (CO)* is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and motor vehicles operating at slow speeds are the primary source of CO in the Basin, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- *Fine Suspended Particulate Matter (PM_{10})* consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM_{10}, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM_{10} is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- *Sulfur dioxide (SO_2)* is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When sulfur dioxide oxidizes in the atmosphere, it forms sulfates (SO_4). Together, these pollutants are referred to as sulfur oxides (SOx).
- *Lead (Pb)* occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the Basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles so most such combustion emissions are associated with off-road vehicles such as racecars. Other sources of lead include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters.
- *Toxic Air Contaminants* refer to a diverse group of air pollutants that can affect human health, but have not had ambient air quality standards established for them.

Existing Regional Air Quality

The entire Basin is designated as a national-level extreme nonattainment area for ozone, meaning that national ambient air quality standards are not expected to be met for more than seventeen years, and a nonattainment area for CO and PM_{10}. The Basin has recently improved from nonattainment to attainment status with respect to the national standard for nitrogen dioxide (NO_2), a pure form of NOx. The Basin is a State-level nonattainment area for ozone, CO (Los Angeles County only), and PM_{10}. It is in attainment of both the national and State ambient air quality standards for SO_2 and lead.

In an effort to monitor the various concentrations of air pollutants throughout the Basin, the SCAQMD has divided the region into 27 source receptor areas (SRAs) in which 31 monitoring stations operate. The UCLA campus is located within SRA 2, which covers the northwest coastal Los Angeles County area. Ambient air pollutant concentrations within SRA 2 are monitored at the Veterans Administration building in West Los Angeles. Of the air pollutants discussed previously, only ambient concentrations of ozone, CO, and NO_2 are monitored in SRA 2. Table 4.2-1 (Summary of Ambient Air Quality in the Project Vicinity) identifies the national and State ambient air quality standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured within SRA 2 through the period of 1999 to 2001. As shown, the State 1-hour ozone standard was exceeded within SRA 2 one to four days over the last three years. No other national or State standards for ozone, CO, or NO_2 have been exceeded within SRA 2 during this time.

Table 4.2-1 Summary of Ambient Air Quality in the Project Vicinity

Air Pollutants Monitored Within SRA 2—Northwest Coastal Los Angeles County[1]	*Year*		
	1999	*2000*	*2001*
Ozone			
Maximum 1-hour concentration measured	0.12 ppm[2]	0.10 ppm	0.10 ppm
Number of days exceeding national 0.12 ppm 1-hour standard	0	0	0
Number of days exceeding State 0.09 ppm 1-hour standard	4	2	1
Maximum 8-hour concentration measured	0.08 ppm	0.08 ppm	0.08 ppm
Number of days exceeding national 0.08 ppm 8-hour standard	0	0	0
Carbon Monoxide (CO)			
Maximum 1-hour concentration measured	6.0 ppm	6.0 ppm	6.0 ppm
Number of days exceeding national 35.0 ppm 1-hour standard	0	0	0
Number of days exceeding State 20.0 ppm 1-hour standard	0	0	0
Maximum 8-hour concentration measured	3.8 ppm	4.3 ppm	4.0 ppm
Number of days exceeding national 9.5 ppm 8-hour standard	0	0	0
Number of days exceeding State 9.0 ppm 8-hour standard	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration measured	0.13 ppm	0.16 ppm	0.11 ppm
Number of days exceeding State 0.25 ppm 1-hour standard	0	0	0

1. Ambient concentrations of PM_{10}, SO_2, and lead are not monitored in SRA 2.
2. ppm = parts by volume per million of air.

Source: SCAQMD 2000, 2001, 2002

Existing Local Air Quality

Land uses in the vicinity of the UCLA campus include commercial, institutional, and residential uses. The single-family residential neighborhood of Bel Air is located north of the campus. South of Le Conte Avenue is the commercial district of Westwood Village, comprised of retail shops, movie theaters, restaurants, and office buildings. East of Hilgard Avenue are sorority houses, apartment buildings, and the single-family residential Holmby-Westwood neighborhood. West of Gayley Avenue is the North Village multi-family residential neighborhood, primarily comprised of fraternity houses and apartment buildings. West of Veteran Avenue is the single-family Westwood Hills neighborhood and the Los Angeles National Cemetery. Local emissions sources include stationary activities, such as space and water heating, landscape maintenance, and consumer products, and mobile sources, primarily automobile and truck traffic.

Motor vehicles are the primary source of pollutants in the campus vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or State standards for CO are termed CO "hotspots." Section 9.4 of the SCAQMD's *CEQA Air Quality Handbook* identifies CO as a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots. The SCAQMD defines typical sensitive receptors as residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The SCAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to the existing ambient CO air concentrations. For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and utilized by the SCAQMD. The simplified model is intended as a screening analysis in order to identify a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations.

Maximum existing CO concentrations were calculated for the intersections evaluated in the UCLA Long Range Development Plan Transportation Systems Analysis (TSA) (included as Appendix 4) that have receptors in close proximity to the roadways. For the purpose of this analysis, receptors are any of the sensitive receptor types identified previously, as well as any location where people would be required (as in a work site) to be located for one to eight hours. CO concentrations for the freeway on- and off-ramps evaluated in the TSA were not calculated since there are no potentially sensitive receptors in close proximity. The results of these calculations are presented in Table 4.2-2 (Existing Localized Carbon Monoxide Concentrations—Regular Session) for representative receptor locations at 25, 50, and 100 feet from each roadway. These distances were selected because they represent locations where a person may be living or working for more than one or eight hours at a time. The National 1-hour standard is 35.0 parts per million (ppm), and the State 1-hour standard is 20.0 ppm. The 8-hour National and State standards are 9.5 ppm and 9.1 ppm, respectively.

Table 4.2-2 Existing Localized Carbon Monoxide Concentrations—Regular Session

Intersection	CO Concentrations in Parts per Million[1,2]					
	25 Feet		50 Feet		100 Feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Church Ln./Ovada Pl. and Sepulveda Blvd.	9.2	6.0	8.4	5.4	7.7	4.9
Sunset Blvd. and Church Ln.	10.1	6.6	9.2	6.0	8.2	5.3
Sunset Blvd. and Veteran Ave.	9.2	6.0	8.4	5.4	7.7	4.9
Sunset Blvd. and Bellagio Way	10.7	7.0	9.6	6.3	8.5	5.5
Sunset Blvd. and Westwood Blvd.	8.1	5.2	7.6	4.9	7.1	4.5
Sunset Blvd. and Stone Canyon Rd.	7.9	5.1	7.4	4.7	7.0	4.4
Sunset Blvd. and Hilgard Ave./Copa del Oro Rd.	9.0	5.8	8.3	5.3	7.6	4.8
Sunset Blvd. and Beverly Glen Blvd.	11.6	7.7	10.3	6.8	9.0	5.9
Sunset Blvd. (east I/S) and Beverly Glen Blvd.	12.2	8.0	10.8	7.1	9.4	6.1
Montana Ave. and Sepulveda Blvd.	8.4	5.4	7.8	5.0	7.2	4.6
Montana Ave. and Levering Ave.	7.8	5.0	7.3	4.7	6.9	4.4
Montana Ave./Gayley Ave. and Veteran Ave.	7.3	4.7	7.0	4.4	6.7	4.2
Strathmore Pl. and Gayley Ave.	7.2	4.6	6.9	4.4	6.6	4.1
Levering Ave. and Veteran Ave.	6.8	4.3	6.5	4.1	6.3	4.0
Wyton Dr. and Hilgard Ave.	6.9	4.4	6.7	4.2	6.4	4.0
Wyton Dr./Comstock Ave. and Beverly Glen Blvd.	7.0	4.4	6.7	4.2	6.5	4.1
Westholme Ave. and Hilgard Ave.	6.9	4.4	6.7	4.2	6.4	4.0
Manning Ave. and Hilgard Ave.	7.1	4.5	6.8	4.3	6.5	4.1
Le Conte Ave. and Gayley Ave.	7.1	4.5	6.9	4.3	6.6	4.1
Le Conte Ave. and Westwood Blvd.	7.1	4.5	6.8	4.3	6.6	4.1
Le Conte Ave. and Tiverton Dr.	6.8	4.3	6.6	4.1	6.3	4.0
Le Conte Ave. and Hilgard Ave.	7.2	4.6	6.9	4.4	6.6	4.2
Weyburn Ave. and Gayley Ave.	7.6	4.9	7.2	4.6	6.8	4.3
Weyburn Ave. and Westwood Blvd.	7.2	4.6	6.9	4.3	6.6	4.1
Weyburn Ave. and Tiverton Dr.	6.3	3.9	6.1	3.8	6.0	3.8
Weyburn Ave. and Hilgard Ave.	6.7	4.3	6.5	4.1	6.3	4.0

Table 4.2-2 Existing Localized Carbon Monoxide Concentrations—Regular Session

Intersection	CO Concentrations in Parts per Million[1,2]					
	25 Feet		50 Feet		100 Feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Kinross Ave. and Westwood Blvd.	7.2	4.6	6.9	4.4	6.6	4.2
Lindbrook Dr. and Westwood Blvd.	7.5	4.8	7.2	4.5	6.8	4.3
Lindbrook Dr. and Tiverton Ave.	7.1	4.5	6.8	4.3	6.5	4.1
Constitution Ave. and Sepulveda Blvd.	7.2	4.6	6.9	4.4	6.6	4.1
Wilshire Blvd. and San Vicente Blvd.	15.1	**10.1**[3]	13.4	8.9	11.5	7.6
Wilshire Blvd. and Sepulveda Blvd.	14.6	**9.8**[3]	13.0	8.6	11.1	7.3
Wilshire Blvd. and Veteran Ave.	14.0	**9.3**[3]	12.4	8.2	10.7	7.0
Wilshire Blvd. and Gayley Ave.	9.4	6.1	8.7	5.6	8.0	5.1
Wilshire Blvd. and Westwood Blvd.	9.0	5.8	8.4	5.4	7.7	5.0
Wilshire Blvd. and Glendon Ave.	9.4	6.1	8.7	5.6	7.9	5.1
Wilshire Blvd. and Malcolm Ave.	8.2	5.3	7.7	5.0	7.2	4.6
Wilshire Blvd. and Westholme Ave.	9.4	6.1	8.7	5.6	7.9	5.1
Wilshire Blvd. and Warner Ave.	8.5	5.5	8.0	5.1	7.4	4.7
Wilshire Blvd. and Beverly Glen Blvd.	9.7	6.3	8.9	5.8	8.1	5.2
Ohio Ave. and Sawtelle Blvd.	7.8	5.0	7.4	4.7	6.9	4.4
Ohio Ave. and Sepulveda Blvd.	9.5	6.2	8.7	5.6	7.9	5.0
Ohio Ave. and Veteran Ave.	8.1	5.2	7.5	4.8	7.0	4.5
Ohio Ave. and Westwood Blvd.	7.6	4.9	7.3	4.6	6.9	4.4
Santa Monica Blvd. and Sawtelle Blvd.	9.3	6.1	8.7	5.6	7.9	5.1
Santa Monica Blvd. and Sepulveda Blvd.	10.2	6.7	9.4	6.1	8.4	5.4
Santa Monica Blvd. (N) and Veteran Ave.	8.9	5.8	8.3	5.3	7.6	4.8
Santa Monica Blvd. (N) and Westwood Blvd.	9.1	5.9	8.5	5.5	7.8	5.0
Roscomare Rd. and Mulholland Dr.	8.5	5.5	7.8	5.0	7.2	4.6
Roscomare Rd. and Stradella Rd./Linda Flora Dr.	6.3	3.9	6.2	3.9	6.1	3.8
Chalon Rd. and Bellagio Rd.	6.4	4.0	6.3	3.9	6.1	3.8
Beverly Glen Blvd. and Mulholland Dr.	9.8	6.4	8.9	5.8	8.0	5.2
Beverly Glen Blvd. and Greendale Dr.	7.3	4.7	7.0	4.4	6.6	4.2

1. National 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.
2. National 8-hour standard is 9.5 parts per million. State 8-hour standard is 9.1 parts per million.
3. Bold numbers indicate that a national and/or State standard is exceeded.

Source: EIP Associates, 2002. Calculation sheets are provided in Appendix 7.

As shown, under worst-case conditions, existing CO concentrations near the two intersections of Wilshire Boulevard at San Vicente Boulevard and Sepulveda Boulevard exceed the national 9.5 ppm and State 9.1 ppm 8-hour ambient air quality standards at 25 feet from the roadways. The State standard, but not the national standard, is also exceeded at 25 feet from the Wilshire Boulevard and Veteran

Avenue intersection. Therefore, sensitive receptors in close proximity to these three intersections could be exposed to substantial pollutant concentrations. Localized CO concentrations near all of the other study-area intersections do not exceed national or State 1-hour and 8-hour ambient air quality standards.

Existing summer traffic counts were also performed as part of the TSA. However, background CO concentrations are substantially lower in the summer than they are in winter when temperatures are lower and surface-based inversions trap the pollutants at ground levels. In SRA 2, 8-hour background concentrations of CO are less than 1.0 ppm in summer as opposed to averaging around 4.0 ppm in winter. In addition, intersection traffic volumes and UCLA contribution to these volumes are lower in summer months. Therefore, localized CO concentrations in summer months would be at least 3.0 ppm lower than levels shown in Table 4.2-2 and do not exceed national or State ambient air quality standards.

During the public scoping meeting for the 2002 LRDP, residents of the Holmby-Westwood neighborhood raised comments concerning the existing conditions at the bus terminal located on Hilgard Avenue near Strathmore Avenue and its effects on local traffic, air quality, and noise. The residents commented that a large number of buses stop at this location and that many of the buses queue in the early morning/late night, allowing their engines to idle for long periods of time.

Because the campus and Westwood Village are destinations for a large number of public transit commuters, several public bus companies have located the beginning/end of some of their routes at the Hilgard Bus Terminal. However, the campus does not own or operate any of these bus lines and the campus does not have the authority to set or change bus schedules.

The campus has a temporary pilot program to subsidize the bus fares of campus members who ride one of the bus lines that use the Hilgard Bus Terminal. This transit pass program—called BruinGo—is implemented by the Santa Monica Big Blue Bus line. However, the BruinGo program has not necessitated the addition of any scheduled buses at the Hilgard Bus Terminal. Instead, it has utilized existing capacity.

The Santa Monica Big Blue Bus line has a program to retire all diesel-fueled buses and replace them with liquid natural gas (LNG), cleaner-fueled buses over the next eight years. They have already converted approximately 20 percent of their active fleet to LNG.

The campus is sensitive to the concerns of local neighbors and is working with local government officials and the bus companies to address the traffic, air quality, and noise issues raised by the Holmby-Westwood neighborhood residents regarding the existing operations at the Hilgard Bus Terminal. As part of this effort, the Culver City Bus Company has re-routed its #6 bus into the campus rather than to the Hilgard Bus Terminal. The campus has also collaborated with the Big Blue Bus line to provide an express bus up and down Westwood Boulevard between National Boulevard and the campus. This bus operates during the peak morning and evening commute periods on school days and drives directly into the Westwood Plaza Ackerman Union turn-around on the campus. Both of these re-routing efforts have reduced the volume of buses at the Hilgard Bus Terminal. The campus continues to work with local government and bus companies to assist in the development of alternatives that address the needs of all affected entities.

Existing Campus Emissions

The 419-acre UCLA campus has been developed with a variety of academic and related uses, with facilities dedicated to instruction, research, patient care, support functions, recreation, and housing. Construction of new, previously approved facilities is presently occurring in the Core Campus, Central, Health Sciences, and Southwest Campus zones. Existing air emissions from the campus are generated by construction equipment, stationary sources, such as the chiller/co-generation facility and backup generators, landscape maintenance equipment, consumer products, and automobile trips. The existing average daily emissions generated by the uses and activities at the campus are presented in Table 4.2-3 (Existing Daily Operational Campus Emissions). As shown, motor vehicles are the primary source of air pollutant emissions associated with the UCLA campus.

Table 4.2-3 Existing Daily Operational Campus Emissions

Emissions Source	Emissions in Pounds per Day				
	CO	VOC	NOx	SOx	PM_{10}
Regular Session					
Construction Activities	209.6	37.5	298.2	10.8	24.9
Stationary Sources	631.2	44.4	163.3	69.6	73.4
Landscape Maintenance	31.9	4.9	0.2	0.0	0.1
Consumer Products	—	114.2	—	—	—
Motor Vehicles	15,379.3	1,251.4	1,632.9	7.4	785.3
Total Emissions	***16,252.0***	***1,452.4***	***2,094.6***	***87.8***	***883.7***
Summer Session					
Construction Activities	209.6	37.5	298.2	10.8	24.9
Stationary Sources	631.2	44.4	163.3	69.6	73.4
Landscape Maintenance	31.9	4.9	0.2	0.0	0.1
Consumer Products	—	12.2	—	—	—
Motor Vehicles	14,681.5	1,180.6	1563.3	6.6	696.6
Total Emissions	***15,554.2***	***1,279.6***	***2,025.0***	***87.0***	***795.0***

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7.

Existing Campus Air Quality Control

The average daily emissions identified in Table 4.2-3 (Existing Daily Operational Campus Emissions) would be substantially higher were it not for numerous programs that are implemented by the campus to reduce air pollutants, energy demand (thereby reducing associated energy generation emissions), and motor vehicle trips. These programs are discussed below.

Stationary Source Controls

All stationary sources of emissions recently constructed and operated within the UCLA campus have incorporated Best Available Control Technology (BACT) as part of the permit requirements from the SCAQMD to control the overall amount of emissions that these sources generate. Under SCAQMD rules, BACT is defined as the most stringent emissions control which, for a given class of air pollutant source, has been achieved in practice, identified in a State Implementation Plan, or has been found by the SCAQMD to be technologically achievable and cost-effective. A primary source of the stationary source emissions generated at the UCLA campus is the Energy System (co-generation) Facility (ESF), which simultaneously produces electricity, steam (to heat campus buildings), and chilled water (for air conditioning and cooling). Other in-building and auxiliary stand-alone chillers are located within the campus to produce additional chilled water for air conditioning and cooling needs.

Energy Conservation

In addition to the energy conserving ESF, the UCLA campus has instituted lighting conservation measures in order to conserve electricity. The campus is nearing completion of the conversion of all exterior lighting to high-pressure sodium fixtures. In addition, virtually all in-building lighting systems have been replaced with energy-saving high efficiency lamps and electronic ballasts. Conservation efforts are also expected to involve improved air conditioning equipment with microprocessor-controlled energy management systems. Using steam from the ESF to heat campus buildings further reduces campus demand for natural gas by eliminating its direct use to heat campus structures. All of these measures reduce the amount of air pollutant emissions that would otherwise be generated through the generation of additional electricity and use of natural gas.

UCLA also limits the amount of parking spaces that are available to students and faculty and charges students, faculty, and visitors to park at the campus. These practices discourage the number of vehicle trips that people might otherwise make and encourage the use of alternative modes of transportation. In addition, utilization of parking spaces is controlled, with over 97 percent requiring daily or longer permits.

Alternative Transportation

The UCLA campus is well served by several modes of alternative transportation. Viable transit opportunities include public bus services provided by outside operators and a campus-operated shuttle bus service. These services not only offer an alternative means by which to commute to the campus, but also help to reduce the need for a car once at UCLA through the ability to utilize shuttles to get around the campus, travel into Westwood Village, or to other off-campus locations.

Public Transit

The UCLA campus area is served by six public transit operators: Santa Monica Municipal Bus Lines (SMMBL), Culver City Bus (CCB), the Los Angeles County Metropolitan Transportation Authority (LACMTA), the Los Angeles Department of Transportation (LADOT), the Antelope Valley Transit Authority (AVTA), and Santa Clarita Transit (SCT). Together, these operators run a total of eighteen bus routes through the Westwood area by way of Le Conte Avenue, Hilgard Avenue, Gayley Avenue, or Wilshire Boulevard. All eighteen routes stop either within the campus, at the campus boundary, within a short walking distance of the campus, or at a UCLA-operated Express Shuttle stop and provide convenient access between the campus and areas as far west as Pacific Palisades and the City of Santa Monica, as far east as Montebello, as far south as the Los Angeles International Airport (LAX), and as far north as Santa Clarita. When transfer opportunities are also considered, these bus routes provide transit service to much of the Los Angeles region.

Campus Transit

In addition to the public transit routes described above, UCLA provides shuttle bus service around the campus and from several remote housing facilities.

Alternative Fuel Vehicles

UCLA operates a fleet of motor vehicles that utilize electricity and alternative fuels. Of the 854 existing campus-operated vehicles, 22 are electric sedans, vans, and trucks; six are electric/ unleaded hybrid sedans; 112 are electric carts and scooters; 62 are sedans, vans, trucks, and buses fueled by compressed natural gas (CNG), including all of the vehicles in UCLA's campus-operated shuttle bus service; eight are CNG/bi-fuel sedans; and six trucks are fueled by propane. All of the vehicles in UCLA's campus-operated shuttle bus service are fueled by CNG. These vehicles emit substantially less air pollutant emissions than their gasoline and diesel-fueled counterparts. In fact, the SCAQMD gave UCLA an Honorable Mention Award in 2000 for its fleet of clean-operating CNG transit buses. An on-campus CNG fueling station makes the use of these vehicles more convenient and cost-effective.

Electric Vehicle Infrastructure

UCLA continues to participate in the SCAQMD electric vehicle (EV) infrastructure program called "Quick Charge LA." This program consists of a network of over 200 EV charging stations at transit centers, shopping malls, and other locations throughout the region. Currently, there are ten public electric vehicle-charging stations on the UCLA campus. Location information and maps are available at the Parking Services office on the main campus and on the Transportation Services Website.

Campus Transportation Demand Management (TDM) Program

UCLA has implemented a Transportation Demand Management (TDM) Program that facilitates and promotes the use of transit, carpools, vanpools, and bicycling. The UCLA TDM Program began in 1984 with a mission of using parking fees and other UCLA resources to achieve cost-effective reductions in campus trip generation and parking demand, while increasing mobility options for faculty, staff, and students. The UCLA TDM program has grown into a comprehensive program that offers a broad range of services to encourage and assist UCLA commuters in utilizing alternatives to the single-occupancy vehicle. As part of its on-going TDM Program, UCLA actively provides and promotes vanpools; carpool matching and parking incentive programs; financial incentives for carpool and vanpool participants; accommodation of the use of other modes of transit, including bicycles, motorcycles, and scooters; alternative work schedules and telecommuting; annual distribution of the UCLA Commuter's Guide; and provision of the TDM program information on the Web; parking control management; and restricting access to main campus parking facilities for on-campus housing residents. UCLA has one of the most comprehensive TDM programs in the country with the largest vanpool program of any public or private university. During the more than 18 years of operation, UCLA's TDM program has remained at the leading edge of such programs and has received numerous awards from regional and local agencies, including the State of California Governor's award, the City of Los Angeles Mayoral award, and Rideshare Program awards from the SCAQMD and Southern California Association of Governments (SCAG).

By 2000, the TDM program had exceeded the goal of a 12-percent reduction in faculty/staff parking rates (below 1990 LRDP levels) five years earlier than projected in the 1990 LRDP. In addition, since 1990, when the SCAQMD first required a survey of all campus employees to determine Average Vehicle Ridership[6] (AVR), the TDM program increased the campuswide AVR from 1.26 to 1.51 by Spring 2000, exceeding the goal of 1.5 set by the SCAQMD. Particularly in large metropolitan areas, such as Los Angeles, an AVR of 1.5 is considered a high goal to achieve.

The specific components of the TDM Program may change over time as the campus strives for the most cost-effective manner by which to continue to achieve its required goals, so long as the overall effectiveness of the Program is not compromised. A description of various components of the current TDM program is provided below.

Carpool Matching

Carpool matching is performed by Southern California Rideshare, the region's ridesharing agency. In addition, UCLA's Commuter Guide gives a full explanation of carpooling options, including an explanation of the convenience and money-saving options of carpool parking permits. Information on how to receive a customized "RideGuide," which aids commuters in finding other people to ride with, is located in the Commuter Guide, including a RideGuide request form. A custom RideGuide not only provides a list of potential carpoolers, it contains a comprehensive, personalized outline of the major transportation options from the individual's community. There are currently over 1,000 active carpools with over 2,300 participants at UCLA.

Commuter Assistance-Ridesharing

Commuter Assistance-Ridesharing (CAR) currently operates a fleet of over 130 vans, covering more than 85 southern California communities. Approximately 1,425 monthly full-time riders participate in the program, for which fares are partially subsidized by the campus. Part-time riders can also use the van service at any time on a space available basis. The customized RideGuide provides potential riders with full information on current routes to their community.

Emergency Ride Home

To further support the campus carpooling and vanpooling efforts, Transportation Services has an "Emergency Ride Home" program that offers full-time vanpool and carpool participants who must get home during the day for a family emergency or who have to work late free or subsidized rental cars, nightrider vanpools, or special arrangements with existing van and carpools.

Bicycles

To support and encourage bicycling to campus safely and comfortably, UCLA provides more than 2,000 bicycle spaces throughout the campus, as well as access to on-campus shower facilities, such as those located in the Wooden Center, Men's Gym, and Kaufman Hall. The campus continues to work with

[6] The AVR is the ratio of employees arriving between 6 A.M. and 10 A.M. to the motor vehicles they drive to campus.

agencies, such as MTA and SCAG, as well as UCLA student groups, to promote a comprehensive system of bicycle routes in the vicinity of the campus. Design of the Westwood Replacement Hospital includes provision of a setback that will allow for the future extension of a marked bicycle lane (by the City of Los Angeles) along the east side of Gayley Avenue.

Motorcycles and Scooters

There are nearly 1,200 specially designated motorcycle/scooter parking spaces located throughout parking lots and structures around campus. Location information and maps are available at the Parking Services office on the main campus and on the Transportation Services Website.

Telecommuting and Alternative Work Schedules

Transportation Services continues to encourage all campus groups to consider telecommuting and alternative work schedules, including a compressed workweek and flextime schedules. Information about these programs is available through Campus Human Resources and Transportation Services.

TDM Outreach

The UCLA Commuter Guide, which is published by UCLA Transportation Services Communications & Marketing Group, is a comprehensive information source describing parking and transportation options at UCLA. The Commuter Guide is distributed to all incoming students, faculty, and staff. In addition, all of UCLA's departmental parking coordinators receive copies of the updated Commuter Guide for distribution each spring, when faculty and staff make decisions regarding annual parking permit renewal. UCLA also publicizes the availability and convenience of alternative transportation modes to the campus through Ridesharing brochures, the Transportation Services Website (www.transportation.ucla.edu), information within the General Catalog and admissions packets sent to students, advertisements in the Daily Bruin, annual commuter fairs, and presentation and distribution of information at new student and employee orientation sessions. Public transit is also actively promoted through MTA, Culver City, and Santa Monica route information and schedule brochures available at the Parking Services office on campus, as well as on the Transportation Services Website. The website provides extensive information regarding commuting regularly to campus using public transit, including links to local public transit providers' published schedules and maps and inexpensive ways to travel to off-campus locations, such as the airport or Metrolink commuter rail stations.

Bus Fare Subsidy Pilot Program

As part of the campus' commitment to review potential methods of enhancing the effectiveness of its TDM program, including revisions to existing strategies and programs and the exploration and development of new programs, the campus currently operates a transit fare subsidy pilot program known as BruinGo.

BruinGo was collaboratively launched by UCLA and the Santa Monica Municipal Bus Lines at the beginning of academic year 2000–01 to provide fare subsidized bus travel to UCLA students, faculty, and staff on the "Big Blue Bus" upon presentation of a Bruin ID card. The program was intended as a pilot to determine whether subsidized transit fare service would reduce on-campus parking demand. While the campus continues to analyze the effectiveness of BruinGo within the context of the overall campus TDM program, the BruinGo pilot program has been extended for the 2002–03 academic year, through the Spring Quarter of 2003.

On-Campus Housing

Another campuswide development objective articulated in the 2002 LRDP relates to the provision of on-campus housing, in part, as a component of transportation management. The 2001 Student Housing Master Plan (SHMP) articulates a goal of providing housing for 58 percent of the student population in University-owned or private sector housing within one mile of campus. In support of this goal, the Southwest Campus Housing project began construction in 2002 and the Northwest Housing Infill Project, which is evaluated in Volume 2 of this EIR, will be considered by The Regents in 2003. Upon completion of the Southwest Campus Housing project, UCLA will have reached the goal of providing housing for 50 percent of the total student enrollment in University-owned or private sector housing within walking distance from campus, which is the goal identified in the 1990 SHMP, and if the Northwest Housing Infill project is approved, the University could attain the goal of providing housing for 58 percent of the total student enrollment, which is the new goal articulated in the 2001 SHMP.

Existing Toxic Air Contaminants Emissions

Toxic air contaminants are airborne substances that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. They include both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. Toxic air contaminants are different than the "criteria" pollutants previously discussed in that ambient air quality standards have not been established for them.

A health risk assessment (HRA) was performed to estimate the potential health risks associated with toxic air contaminants generated by implementation of the 2002 LRDP and is included as Appendix 7 of this EIR. The health effect categories evaluated in the HRA conducted for the 2002 LRDP include the following:

- Lifetime risk of developing cancer for potentially exposed individuals
- Population-wide potential for developing cancer (cancer burden)
- Potential for chronic or long-term noncancer effects
- Potential for acute or short-term noncancer effects

On- and off-campus receptors were evaluated in the HRA. The on-campus receptors evaluated were those within the campus boundary that could be characterized as sensitive receptors, such as hospitals, day care centers, schools, and residential dormitories. The potential health effects were quantified for the specific location of each individual on-campus sensitive receptor. Off-campus receptors were represented using various grid spacing locations around the campus boundary. The potential health effects were quantified for each grid location. The purpose of the on- and off-campus health effect quantification process was to identify the maximally exposed individual (MEI). This represents the singular on- and off-campus location where health effects associated with campus emissions would be highest. The health effects at all other analyzed location would be lower. The MEI can change for each potential health effect depending on the type of pollutant being evaluated and the location of its source within the campus. Please refer to Appendix 7 of this EIR for a detailed description of the methodology employed for the HRA.

The following discussion identifies the existing potential for health risks to sensitive receptors located within the UCLA campus and the surrounding vicinity.

Existing Sources of Toxic Air Contaminants

The UCLA campus conducts routine operations that generate emissions regulated by the State of California. The sources of emissions include co-generation gas turbines, gasoline dispensing operations, boilers, standby generators driven by internal combustion engines, painting operations, and laboratory chemical usage. The HRA evaluated the toxic emissions associated with these sources based on fuel, material, and chemical usage considered representative of the current year-to-year routine campuswide operations.

Existing Lifetime Cancer Risk

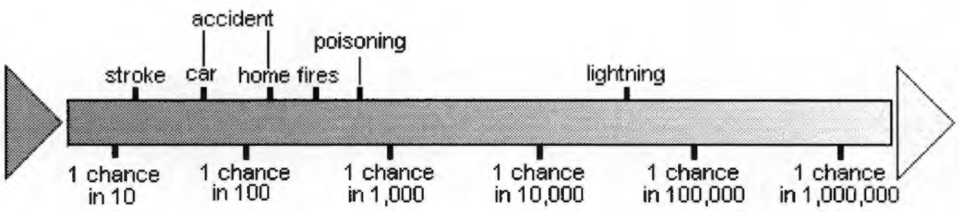
Lifetime cancer risk is defined as the increased chance of contracting cancer over a 70-year period as a result of exposure to a toxic substance or substances. It is the product of the estimated daily exposure of each suspected carcinogen by its respective cancer unit risk. The end result represents a worst-case estimate of cancer risk by assuming that an individual would be exposed to the same toxic substance at the same location continually for 70 years.

Risk characterization combines the results of the exposure and dose-response assessments to estimate the potential for adverse health effects as represented by the probability for an individual to contract cancer beyond the normal background likelihood. Risk analysts describe risks numerically in scientific notation; for example 1×10^{-6} means that there is one chance in 1,000,000 of an event occurring. The California Air Pollution Control Officers Association (CAPCOA) Risk Assessment Guidelines establish an upper threshold of 10 in one million for acceptable cancer health risk. The SCAQMD also recommends the use of this threshold to determine acceptable cancer heath risk. Cancer risk is defined as the worst-case probability of an individual developing cancer over a lifetime as a result of an exposure to potential carcinogens. The cancer risk level is intended to ensure a sufficient safety margin to prevent a single project or activity from causing a substantial contribution to the overall number of cancer cases in an area. It is not intended or designed to serve as a means to evaluate cumulative risk associated with multiple activities not associated with the project in question or to assess risk posed by ambient background conditions.

The conclusions of an HRA must be considered in context. As a general matter, the background probability of an individual contracting cancer in one's lifetime is 333,000 in one million; that is, one in three people will contract cancer in their lifetime. This overall probability of contracting cancer can be influenced by diet, smoking, heredity, chemicals in the environment and the workplace, and other factors. An individual source of toxic air contaminants that would result in less than 10 excess cancer cases in one million is unlikely to cause a substantial increase in the overall number of cancer cases that would otherwise occur.

It should be recognized that when small populations are exposed, population risk estimates may be very small. For example, if 100 people are exposed to an individual lifetime cancer risk of one in 100,000 or 1×10^{-5}, the expected number of cases is 0.001. For risk assessment purposes, a lifetime of exposure is considered to be 70 years, 365 days a year, 24 hours per day. It should further be recognized that an HRA does not calculate the exact risk for all individuals, but a hypothetical risk assuming that all of a series of "worst-case scenario" exposure assumptions apply, such as the MEI does not move from the specific worst-case location and worst-case wind conditions do not change. The chance that an individual would be exposed to any one of these exposure assumptions is small, and is even smaller for all assumptions to occur simultaneously (e.g., 70 years of continuously breathing air at the location of maximum impact). Thus, an individual's actual risk is likely to be substantially over-estimated by the recommended methodology of an HRA.

It is also important to place health risk and the assessment of probability in the context of daily activity. To provide an idea of the size of risks from environmental hazards, the continuum below provides risk statistics for some familiar events (U.S. EPA 1991).



Comparative Risk Probabilities

The lifetime cancer risk as a result of a lifetime exposure to emissions from the routine campuswide operation of all existing sources at the UCLA campus was estimated to be 6.3 in one million (6.3×10^{-6}) at the off-campus MEI and 7.3 in one million (7.3×10^{-6}) at the on-campus MEI. The off-campus MEI was calculated to be located east of the campus along Hilgard Avenue. The on-campus MEI was calculated to be located in the southern portion of the campus, near Franz Hall. Potential risks at all other locations within the campus and surrounding vicinity would be lower. The estimated values are well below the 10 in one million thresholds for acceptable incremental cancer health risk established by CAPCOA and the SCAQMD.

Existing Cancer Burden

Cancer burden is another measure of cancer risk and represents a worst-case estimate of the increased number of cancer cases that might occur in the exposed population as a result of emissions from routine campuswide operations. An acceptable cancer burden threshold is 1.0 or less, meaning that the project would result in less than one additional case of cancer in the affected population. Burden is estimated by multiplying the cancer risk determined at a specific location by the population residing in that location and summing those results for all populated areas within the carcinogenic zone of analysis (ZOA) within and to the east of the campus. The population within the ZOA is approximately 79,552 people (including 19,552 residents and 60,000 employees/students).

For the purpose of this analysis, the mean cancer risk used to estimate the cancer burden within the ZOA was calculated to be 3.2 in one million (3.2×10^{-6}). Thus, assuming that all of the residential, employee, and student population were exposed to this level of risk continuously for 70 years, the maximum potential cancer burden was determined to be 0.3 ($79{,}552 \times 3.2 \times 10^{-6} = 0.3$). The result indicates that the emissions from existing campuswide operations would not cause any additional cancer cases within the surrounding area because it is well below 1.0.

Existing Noncancer Health Effects

The potential for emissions from routine campuswide operations to cause both chronic and acute noncancer health effects was also assessed in the HRA. Guidance published by the California Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA) and the CAPCOA AB 2588 guidelines specify which substances are to be evaluated in the noncancer effects assessment and which organ systems within the body are affected (e.g., liver, kidney, respiratory system, and central nervous system).

Results of the chronic noncancer health effects assessment indicate that all of the hazard index (HI) values for each organ system are less than 1.0. Chronic HI values less than 1.0 indicate that noncancer effects from chronic exposure to emissions from routine campuswide operations are unlikely. The maximum chronic HI for an organ system was 0.11 at the off-campus MEI and 0.12 at the on-campus MEI. As with the lifetime cancer risk assessment, the off-campus MEI was calculated to be located east of the campus along Hilgard Avenue and the on-campus MEI was calculated to be located in the southern portion of the campus, near Franz Hall. Potential health effects at all other locations within the campus and surrounding vicinity would be lower.

Results of the acute noncancer health effects assessment indicate that all of the HI values for each organ system are also less than 1.0. Acute HI values less than 1.0 indicate that noncancer effects from acute exposure to emissions from routine campuswide operations are unlikely. The maximum acute HI for an organ system was 0.15 at the off-campus MEI and 0.12 at the on-campus MEI. The off-campus MEI was calculated to be located approximately 200 meters west of the campus boundary. The on-campus MEI was calculated to be located at the UCLA Medical Center. These locations are different from the chronic noncancer health effects assessment due to the different locations within the campus where the associated emissions would be generated. Potential health effects at all other locations within the campus and surrounding vicinity would be lower.

4.2.2 Regulatory Framework

Air quality within the Basin is addressed through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the Basin are discussed below.

Federal and State

U.S. Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives.

As part of its enforcement responsibilities, the EPA requires each State with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

California Air Resources Board

The California Air Resources Board (ARB), a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, the ARB conducts research, sets California Ambient Air Quality Standards, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The ARB establishes emissions standards for motor vehicles sold in California, consumer products (e.g., hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Regional

South Coast Air Quality Management District

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with SCAG, County transportation commissions, local governments, and cooperates actively with all federal and State government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. The most recent of these was adopted by the Governing Board of the SCAQMD on November 16, 1996. This AQMP, referred to as the 1997 AQMP, was prepared to comply with the federal and State Clean Air Acts and amendments, to accommodate growth, to reduce the high pollutant levels in the Basin, to meet federal and State ambient air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. An amendment to the ozone portion of the 1997 AQMP was adopted by the Governing Board on December 10, 1999. Principal control measures of the AQMP focus on adoption of new regulations or enhancement of existing regulations for stationary sources and implementation/facilitation of advanced transportation technologies (i.e., telecommunication, zero emission and alternative-fueled vehicles and infrastructure, and both capital and noncapital transportation improvements). Capital improvements consist of high-occupancy vehicle (HOV) lanes; transit improvements; traffic flow improvements; park-and-ride and intermodal facilities; and urban freeway, bicycle, and pedestrian facilities. Noncapital improvements consist of rideshare matching and transportation demand management activities derived from the congestion management program. The 1997 AQMP comprises the South Coast Air Basin portion of the SIP.

The future air quality levels projected in the 1997 AQMP and the 1999 Amendment are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the Regional Comprehensive Plan and Guide (RCPG), which was adopted in March 1996. The AQMP also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation.

4.2.3 Project Impacts and Mitigation

Analytic Method

The analysis in this section focuses on the nature and magnitude of the change in the air quality environment due to implementation of the 2002 LRDP. Air pollutant emissions associated with the 2002 LRDP would result from the increased building space, student population, and campus-related traffic volumes. Construction activities would also continue to generate emissions at the campus. The net increase in campuswide emissions generated by these activities and other secondary sources have been quantitatively estimated and compared to thresholds of significance recommended by the SCAQMD.

Construction Emissions

Construction emissions are calculated by estimating the types and number of pieces of equipment that would be used to demolish existing buildings and clear project sites, excavate the site areas, construct several new buildings, and plant new landscaping within the UCLA campus. The type and number of pieces of equipment are then multiplied by emissions rates identified by the SCAQMD in the *CEQA Air Quality Handbook*.

Stationary Source Emissions

Stationary source emissions would be generated by new boilers used to provide space heating and hot water and backup generators tested periodically and used to provide power in the event of an emergency. The emissions generated by this equipment are estimated by increasing the existing stationary source emissions reported for the campus proportionally by the amount of building space proposed under the 2002 LRDP.

Landscape Maintenance Emissions

It is assumed that implementation of the 2002 LRDP could increase the amount of ornamental landscaping within the campus. This would increase the demand for landscape maintenance operations. The average daily emissions associated with these activities are estimated using emission factors from the URBEMIS 2001 emissions model developed for the California Air Resources Board (ARB). For non-single-family residential units, the URBEMIS 2001 emission factors are based on "business units" rather than individual building numbers. Although the UCLA campus could theoretically be considered one business unit, this would result in an estimation of landscape maintenance equipment emissions that is well below expected levels. Therefore, this analysis considers every 500,000 square feet of building space within the campus to be one business unit for the purpose of estimating landscape maintenance equipment emissions.

Consumer Products

Emissions would be generated on a daily basis through the use of consumer products by the new on-campus residents associated with the Northwest Housing Infill Project. These consumer products include personal care and cleaning products. The daily emissions are calculated multiplying the 0.0171 pound per resident emissions factor from the URBEMIS 2001 emissions model by the number of on-campus residents added as a result of the 2002 LRDP.

Motor Vehicle Emissions

Changes in the amount of air pollutant emissions generated on a daily basis in association with the UCLA campus would primarily occur as a result of an increase in the campus population and resulting changes in motor vehicle trips. The emissions associated with these motor vehicle trips are calculated using the URBEMIS 2001 emissions model and the traffic volumes predicted for the project in the UCLA Long Range Development Plan TSA (included as Appendix 4).

Localized CO Concentrations

Localized CO concentrations are calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and utilized by the SCAQMD. The simplified model is intended as a screening analysis, which identifies a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations. The resulting emissions are compared with adopted national and State ambient air quality standards.

Toxic Air Contaminants

Due to the number of potential toxic air contaminants, their diverse nature, and the lack of specific emissions standards for these pollutants, potential impacts associated with these contaminants are based upon the HRA performed for the 2002 LRDP, which is provided as Appendix 7 of this document.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on air quality if it would result in any of the following:

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

As the agency principally responsible for comprehensive air pollution control in the Basin, the SCAQMD recommends that projects should be evaluated in terms of air pollution control thresholds established by the SCAQMD and published in the *CEQA Air Quality Handbook*. These thresholds were developed by the SCAQMD to provide quantifiable levels that projects can be compared to. The campus utilizes the SCAQMD's thresholds that are recommended at the time that development projects are proposed to assess the significance of quantifiable impacts. The following quantifiable thresholds are currently recommended by the SCAQMD and are used to determine the significance of air quality impacts associated with the 2002 LRDP.

Construction Emissions Thresholds

The SCAQMD currently recommends that projects with construction-related emissions that exceed any of the following emissions thresholds should be considered significant:

- 550 pounds per day of CO
- 75 pounds per day of VOC
- 100 pounds per day of NOx
- 150 pounds per day of SOx
- 150 pounds per day of PM_{10}

Operational Emissions Thresholds

The SCAQMD currently recommends that projects with operational emissions that exceed any of the following emissions thresholds should be considered significant. These thresholds apply to individual development projects only; they do not apply to cumulative development:

- 550 pounds per day of CO
- 75 pounds per day of VOC

- 100 pounds per day of NOx
- 150 pounds per day of SOx
- 150 pounds per day of PM_{10}

In order to assess cumulative impacts, the SCAQMD recommends that projects be evaluated to determine whether they would be consistent with AQMP performance standards and emission reduction targets. If a project shows less than a one percent per year reduction in project emissions of CO, VOC, NOx, SOx, and PM_{10}, then it would result in a cumulatively considerable net increase of criteria pollutants for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.

The SCAQMD also recommends that projects that could emit carcinogenic or toxic air contaminants that exceed the maximum individual cancer risk of 10 in one million be considered significant.

Effects Not Found to Be Significant

The Initial Study did not identify any Effects Not Found to Be Significant with respect to air quality; therefore, all potential air quality impacts are discussed in this EIR.

Impacts and Mitigation

Threshold	Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact LRDP 4.2-1 **Implementation of the 2002 LRDP would not conflict with or obstruct implementation of the Air Quality Management Plan. This is considered a *less-than-significant* impact.**

The 1997 AQMP and 1999 Amendment for Ozone, discussed previously, were prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of the RCPG are considered consistent with the AQMP growth projections, since the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

As discussed in Section 4.8 (Land Use and Planning), Impact LRDP 4.8-2, under the consistency analysis for Policy 3.01 of the RCPG, the projected growth in campus population by 2010 is included in the SCAG projections, which estimate a population of 4,188,638 in 2010 for the City of Los Angeles Subregion. Consequently, the 2002 LRDP does not provide for population, housing, or employment growth that exceeds the SCAG forecast. Consequently, implementation of the LRDP would be consistent with AQMP attainment forecasts.

Another measurement tool in determining consistency with the AQMP is to determine how a project accommodates the expected increase in population or employment. Generally, if a project is planned in a way that results in the minimization of VMT both within the project and the community in which it is located, and consequently the minimization of air pollutant emissions, that aspect of the project is consistent with the AQMP.

The 2002 LRDP represents infill development on a highly developed campus, utilizing existing infrastructure and public service systems. The campus is centrally located to activity centers throughout the southern California region, connected by an extensive transportation network. The UCLA campus has successfully implemented a comprehensive TDM Program since 1984 that offers a broad range of services to encourage and assist UCLA commuters in utilizing alternatives to the single-occupancy vehicle. As part of its ongoing TDM Program, UCLA actively provides and promotes vanpools; carpool matching and parking incentive programs; financial incentives for carpool and vanpool participants; accommodation of the use of other modes of transit, including bicycles, motorcycles, and scooters; alternative work schedules and telecommuting; annual distribution of the UCLA Commuter's Guide; parking control management; and restricting access to main campus parking facilities for on-campus housing residents. The 2002 LRDP also contains specific planning objectives aimed at reducing vehicle miles traveled and providing alternative methods of transportation, as well as land use policies integrating walkways with building design to encourage pedestrian use through placement and design. These planning principles would serve to encourage the use of transit, reduce the number of vehicle trips and miles traveled, and create further opportunities for campus students, faculty, and staff to walk and bike to campus. These programs are consistent with the goals of the AQMP for reducing the emissions associated with new development.

Based on this information, the 2002 LRDP is consistent with the 1997 AQMP and the 1999 Amendment for Ozone. Therefore, the 2002 LRDP would neither conflict with nor obstruct implementation of the 1997 AQMP and the 1999 Amendment for Ozone, and this impact would be less than significant.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.2-1(a) *The campus shall continue to provide on-campus housing to continue the evolution of UCLA from a commuter to a residential campus.* (This is identical to Noise and Vibration PP 4.9-5(a) and Transportation/ Traffic PP 4.13-1(c).)

PP 4.2-1(b) *The campus shall continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective.* (This is identical to Noise and Vibration PP 4.9-5(b) and Transportation/Traffic PP 4.13-1(d).)

Following PP 4.2-1(a) and PP 4.2-1(b) ensures that motor vehicle trips to and from the campus are reduced and that this impact remains less than significant. No mitigation is required.

Threshold	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Impact LRDP 4.2-2 **The 2002 LRDP construction could contribute substantially to an existing or projected air quality violation. This is considered a *significant* impact.**

Construction activities are an existing and on-going source of emissions at the UCLA campus. Construction of new, previously approved facilities is presently occurring in the Core Campus, Central, Health Sciences, and Southwest Campus zones. Emissions from current construction are reflected in the existing daily campus emissions totals previously presented in Table 4.2-3 (Existing Daily Operational Campus Emissions). It is also the greatest amount of concurrent construction that has occurred within the campus in recent years.

Under the 2002 LRDP, emissions would continue to be generated during the construction of the new campus buildings. Based on historic trends at the campus, there could be an average of between two to four building projects under construction at one time. The proposed NHIP represents an example of this type of multi-building development under the 2002 LRDP. It is also the largest project envisioned for the campus under the 2002 LRDP and could be developed while construction activities occur at other areas within the campus. As such, the proposed NHIP represents the construction project that would generate the greatest amount of peak daily construction emissions under the 2002 LRDP.

Construction activities associated with the NHIP are expected to occur over a period of approximately three years. Four basic types of activities would be expected to occur and generate emissions during construction. First, some existing buildings within the campus would be demolished and existing surface features cleared. Following demolition, the development sites would be prepared (graded and/or excavated) to accommodate the new building foundations and surface features. The buildings and surface features would then be constructed and readied for use. Finally, new landscaping would be planted around the new buildings.

The amount of emissions generated on a daily basis would vary, depending on the number of buildings that are being constructed at the same time and the type of construction activities occurring at the same time. In the case of the NHIP, there would be times when several buildings are being constructed and/or renovated simultaneously, and other times when only one building is under construction. For the purpose of this analysis, construction activities and, therefore, the associated emissions, would be greatest under two scenarios. The first peak construction scenario would occur when Hedrick North is being constructed, the Dykstra Parking site is being excavated, and the first floor of Sproul Hall is being renovated. This scenario involves the operation of several trucks to transport excavated earth materials from the campus, along with the dust generation associated with excavations activities (these dust activities are subject to SCAQMD Rule 403). The second peak scenario would occur during the construction of Hedrick North, Dykstra Parking, Rieber North, and Rieber West, and the renovation of the first floor of Hedrick Hall. This scenario involves the greatest use of construction equipment at the campus. These construction activities could occur while construction of other buildings occurs elsewhere within the campus. The other potential campus construction activities are unknown at this time, would vary on a monthly basis, and are unlikely to exceed current construction activities. Development of the NHIP would, however, represent a net increase in construction emissions that would otherwise not occur without implementation of the 2002 LRDP.

Table 4.2-4 (Estimated Peak Daily Construction Emissions under the 2002 LRDP) identifies the net increase in daily emissions associated with the two peak construction scenarios for the NHIP and compares them with the thresholds of significance recommended for construction projects by the SCAQMD. These emissions would be generated above the campus baseline condition that exists at the time of construction. The calculations assume that appropriate dust control measures would be implemented during each component of development as required by SCAQMD Rule 403—Fugitive Dust.

Table 4.2-4 Estimated Peak Daily Construction Emissions under the 2002 LRDP

	Emissions in Pounds per Day				
Emissions Source	*CO*	*VOC*	*NOx*	*SOx*	*PM_{10}*
Peak Construction Scenario 1: Construction of Hedrick North, Excavation for Dykstra Parking, and Renovation of Sproul 1st Floor					
Construction Equipment	62.9	14.2	128.3	10.8	27.7
On-Road Vehicles	101.0	16.8	136.9	0.0	1.2
Site Excavation and Grading	—	—	—	—	50.0
Rule 403 Reduction	—	—	—	—	-34.0
Total Emissions (net increase over other concurrent campus construction activities)	163.9	31.0	265.3	10.8	45.0
SCAQMD Thresholds	550.0	75.0	100.0	150.0	150.0
Significant Impacts?	No	No	Yes	No	No
Peak Construction Scenario 2: Construction of Hedrick North, Dykstra Parking, Rieber North, Rieber West, and Renovation of Hedrick 1st Floor					
Construction Equipment	93.5	21.6	170.6	9.1	46.1
On-Road Vehicles	17.1	3.9	18.9	0.0	0.7
Total Emissions (net increase over other concurrent campus construction activities)	110.6	25.6	189.5	9.1	46.7
SCAQMD Thresholds	550.0	75.0	100.0	150.0	150.0
Significant Impacts?	No	No	Yes	No	No

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7.

As shown, the net increase in daily construction-related emissions of NOx exceeds the thresholds of significance recommended by the SCAQMD during both peak construction scenarios. Therefore, construction under the 2002 LRDP would contribute substantially to an existing or projected air quality violation during peak periods and the potential impact would be significant. Peak daily emissions of the other four construction-related emissions would not exceed SCAQMD significance thresholds under either peak construction scenario.

The following mitigation measures shall be implemented:

MM 4.2-2(a) *The campus shall require by contract specifications that construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes.*

MM 4.2-2(b) *The campus shall encourage contractors to utilize alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) and low-emission diesel construction equipment to the extent that the equipment is readily available and cost effective.*

In addition, the following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.2-2(a) *The campus shall continue to implement dust control measures consistent with SCAQMD Rule 403—Fugitive Dust during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation:*

- *Apply water and/or approved nontoxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas that have been inactive for 10 or more days)*
- *Replace ground cover in disturbed areas as quickly as possible*
- *Enclose, cover, water twice daily, or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content*
- *Water active grading sites at least twice daily*
- *Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period*
- *All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code*
- *Sweep streets at the end of the day if visible soil material is carried over to adjacent roads*
- *Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip*
- *Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces*
- *Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads*

PP 4.2-2(b) *The campus shall continue to require by contract specifications that construction equipment engines will be maintained in good condition and in proper tune per manufacturer's specification for the duration of construction.*

PP 4.2-2(c) *The campus shall continue to require by contract specifications that construction operations rely on the campus' existing electricity infrastructure rather than electrical generators powered by internal combustion engines to the extent feasible.*

Implementation of MM 4.2-2(a) and MM 4.2-2(b) and following PP 4.2-2(a) through PP 4.2-2(c) ensures that construction related air quality impacts are minimized. They would not, however, reduce the net increase in peak construction activities to below the thresholds of significance recommended by the SCAQMD. Therefore, this impact would be significant and unavoidable. No additional feasible mitigation is available.

Impact LRDP 4.2-3 **Implementation of the 2002 LRDP would not result in daily operational emissions that contribute substantially to an existing or projected air quality violation during the regular session. This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP would increase the amount of building space, ornamental landscaping, number of students living on-campus, and number of faculty, staff, and students commuting to the campus. There would be an associated increase in daily emissions associated with stationary sources for space and water heating, landscape maintenance activities, and use of consumer products. There would also be a change in motor vehicle trips and their associated emissions.

Table 4.2-5 (Future Without and With Project Daily Operational Campus Emissions—Regular Session) identifies the total estimated daily operational emissions associated with the campus under the future without project baseline scenario and the future with project scenario during the regular session. The estimated net increase in daily operational campus emissions during the regular session is presented at the bottom of Table 4.2-5. As shown, the net increase in daily campus emissions associated with the 2002 LRDP would not exceed the threshold of significance recommended by the SCAQMD. Therefore, implementation of the 2002 LRDP would not generate a net increase in daily operational campus emissions during the regular session that contributes substantially to an existing or projected air quality violation.

Table 4.2-5 Future Without and With Project Daily Operational Campus Emissions—Regular Session

	Emissions in Pounds per Day				
Emissions Source	CO	VOC	NOx	SOx	PM_{10}
Future Without Project Campus Uses and Operations					
Construction Activities[1]	163.9	31.0	265.3	10.8	45.0
Stationary Sources	699.7	49.2	181.0	77.1	81.4
Landscape Maintenance	35.4	5.4	0.2	0.0	0.1
Consumer Products	—	148.4	—	—	—
Motor Vehicles	10,169.7	917.7	965.0	5.5	841.6
Total Emissions	11,068.7	1,151.7	1,411.5	93.4	968.1
Future With Project Campus Uses and Operations					
Construction Activities[1]	163.9	31.0	265.3	10.8	45.0
Stationary Sources	777.3	54.7	201.1	85.7	90.4
Landscape Maintenance	39.3	6.0	0.2	0.0	0.1
Consumer Products	—	177.0	—	—	—
Motor Vehicles	10,274.7	927.2	975.0	5.5	850.3
Total Emissions	11,255.2	1,195.9	1,441.6	102.0	985.8
Net Increase in Future Daily Operational Campus Emissions (Future With Project Minus Future Without Project)					
Net Increase in Future Daily Emissions	186.5	44.2	30.1	8.6	17.7
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Significant Impacts?	No	No	No	No	No

1. Construction activities would occur in the future with or without implementation of the 2002 LRDP. The daily emissions shown in this table for construction activities are for example only, but are expected to be similar under the future without project or future with project scenarios. The net increase in daily operational emissions would be similar same under this analysis whether or not construction activities are occurring at the campus.

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7 and assume a future baseline year of 2010.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.2-3 *The campus shall continue to implement energy conservation measures (such as energy-efficient lighting and microprocessor-controlled HVAC equipment) to reduce the demand for electricity and natural gas. The energy conservation measures may be subject to modification as new technologies are developed or if current technologies become obsolete through replacement.* (This is identical to Utilities and Service Systems PP 4.14-10.)

Following PP 4.2-3, as well as PP 4.2-1(a), PP 4.2-1(b), and PP 4.2-2(a) through PP 4.2-2(c), ensures that this impact remains less than significant. No mitigation is required.

Impact LRDP 4.2-4 **Implementation of the 2002 LRDP would result in daily operational emissions that contribute substantially to an existing or projected air quality violation during the twelve-week summer session. This is considered a *significant* impact.**

During the twelve-week summer session, the UCLA campus would experience a substantial increase in the number of students attending classes as compared to the LRDP baseline condition. Table 4.2-6 (Future Without and With Project Daily Operational Campus Emissions—Summer Session) identifies the total estimated daily operational emissions associated with the campus under the future without project baseline scenario and the future with project scenario during the summer session. The estimated net increase in daily operational campus emissions during the summer session is presented at the bottom of Table 4.2-6. As shown, there would be a net increase in the daily emissions of CO, VOC, and NOx that exceeds the SCAQMD's recommended threshold of significance. Consequently, implementation of the 2002 LRDP would contribute substantially to an existing or projected air quality violation during the twelve-week summer session. This is a significant impact.

Table 4.2-6 Future Without and With Project Daily Operational Campus Emissions—Summer Session

	Emissions in Pounds per Day				
Emissions Source	*CO*	*VOC*	*NOx*	*SOx*	*PM_{10}*
Future Without Project Campus Uses and Operations					
Construction Activities[1]	163.9	31.0	265.3	10.8	45.0
Stationary Sources	699.7	49.2	181.0	77.1	81.4
Landscape Maintenance	35.4	5.4	0.2	0.0	0.1
Consumer Products	—	46.4	—	—	—
Motor Vehicles	8,875.5	800.9	842.2	4.8	734.5
Total Emissions	9,774.5	932.9	1,288.7	92.7	861.0
Future With Project Campus Uses and Operations					
Construction Activities[1]	163.9	31.0	265.3	10.8	45.0
Stationary Sources	777.3	54.7	201.1	85.7	90.4
Landscape Maintenance	39.3	6.0	0.2	0.0	0.1
Consumer Products	—	49.5	—	—	—
Motor Vehicles	9,699.9	875.3	920.5	5.2	802.7
Total Emissions	10,680.4	1,016.5	1,387.1	101.7	938.2
Net Increase in Future Daily Operational Campus Emissions (Future With Project minus Future Without Project)					
Net Increase in Future Daily Emissions	905.9	83.6	98.4	9.0	77.2
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Significant Impact?	Yes	Yes	Yes	No	No

1. Construction activities would occur in the future with or without implementation of the 2002 LRDP. The daily emissions shown in this table for construction activities are for example only, but are expected to be similar under the future without project or future with project scenarios. The net increase in daily operational emissions would be similar under this analysis whether or not construction activities are occurring at the campus.

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7 and assume a future baseline year of 2010.

To further reduce trip generation and associated motor vehicle emissions during the summer session, the following mitigation measure shall be implemented to expand distribution of TDM information to summer session students, many of whom are not regularly enrolled students.

The following mitigation measure shall be implemented:

MM 4.2-4 *The TDM program will be extended through the student registration process to provide information concerning alternative transportation options to summer session students to increase awareness of, and participation in, alternative transportation programs during the summer session.* (This is identical to Noise and Vibration MM 4.9-6 and Transportation/Traffic MM 4.13-2(a).)

Implementation of MM 4.2-4, as well as PP 4.2-1(a), PP 4.2-1(b), PP 4.2-2(a) through PP 4.2-2(c), and PP 4.2-3, ensures that the number of motor vehicle trips and stationary source emissions are reduced to the maximum extent feasible during the summer session. They would not, however, reduce the net increase in daily emissions generated during the summer session to below the thresholds of significance recommended by the SCAQMD. As discussed previously in this section, the campus is currently implementing numerous programs to reduce air pollutants, energy demand (thereby reducing associated energy generation emissions), and motor vehicle trips. With the exception of MM 4.2-4, these existing programs represent the extent of all feasible mitigation that can be implemented by the campus to reduce the significant increase in emissions during the summer session. Therefore, this impact would be significant and unavoidable. No additional feasible mitigation is available.

Threshold	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Impact LRDP 4.2-5 **Implementation of the 2002 LRDP would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard. This is considered a *less-than-significant* impact.**

The SCAQMD's *CEQA Air Quality Handbook* identifies possible methods to determine the cumulative significance of land use projects (i.e., whether the contribution of a project is cumulatively considerable). These methods differ from the methodology used in other cumulative impact analyses in which all foreseeable future development within a given service boundary or geographical area is predicted and its impacts measured. The SCAQMD has not identified thresholds to which the total emissions of all cumulative development can be compared. Instead, the SCAQMD's methods are based on performance standards and emission reduction targets necessary to attain federal and State air quality standards as predicted in the AQMP.

As discussed previously, the 1997 AQMP and 1999 Amendment for Ozone were prepared to accommodate growth, to reduce the high levels of pollutants within the Basin, to meet federal and State air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. According to the *CEQA Air Quality Handbook*, projects that are consistent with the AQMP performance standards and emission reduction targets would be considered less than significant unless there is other pertinent information to the contrary. The method employed for this impact is an analysis of consistency with specific AQMP performance standards and emission reduction targets. If the 2002 LRDP shows a one percent per year reduction in project emissions of CO, VOC, NOx, SOx, and PM_{10}, then it would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.

As discussed previously, the UCLA campus implements numerous programs to reduce air pollutants, energy demand (thereby reducing associated energy generation emissions), and motor vehicle trips. By 2000, the TDM program had exceeded the goal of a 12-percent reduction in faculty/staff parking rates (below 1990 LRDP levels) five years earlier than projected in the 1990 LRDP. In addition, since 1990, when the SCAQMD first required a survey of all employees to determine AVR, the TDM program increased the campuswide AVR from 1.26 to 1.51 by Spring 2000, exceeding the goal of 1.5 set by the SCAQMD. The emissions reductions associated with continued implementation of the TDM program under the 2002 LRDP are presented in Table 4.2-7 (2002 LRDP TDM Emissions Reductions—Regular Session) based on traffic volumes determined for the future with project campus motor vehicles without TDM. As shown, the TDM program would reduce the motor vehicle emissions by 6.7 to 6.8 percent below those that would otherwise be generated if the TDM program were not implemented.

Table 4.2-7 2002 LRDP TDM Emissions Reductions—Regular Session

	Emissions in Pounds per Day				
Emissions Source	***CO***	***VOC***	***NOx***	***SOx***	***PM_{10}***
Future With Project Campus Motor Vehicles without TDM	11,010.9	993.6	1,044.9	5.9	911.2
Future With Project Campus Motor Vehicles with TDM	10,274.7	927.2	975.0	5.5	850.3
Net Reduction in Daily Emissions	736.2	66.4	69.9	0.4	60.9
Percent Reduction	6.7	6.7	6.7	6.8	6.7

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7.

The SCAQMD CEQA Air Quality Handbook indicates that energy conservation measures reduce the emissions associated with water heating and space heating and cooling needs by 1.5 to 14 percent. The implementation of BACT for all new stationary sources of emissions reduces the emissions from these sources by the maximum extent feasible.

Therefore, continued implementation of the existing TDM program, energy conservation efforts, and BACT programs reduce the emissions that would otherwise be generated by the campus by substantially more than one percent on an annual basis. Therefore, the 2002 LRDP would meet the performance standard for annual emissions reductions and would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.

Following PP 4.2-1(a), PP 4.2-1(b), and PP 4.2-3, along with MM 4.2-4, ensures that this impact remains less than significant.

Threshold	Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact LRDP 4.2-6 Implementation of the 2002 LRDP would not expose sensitive receptors near roadway intersections to substantial pollutant concentrations. This is considered a *less-than-significant* impact.

As was done to assess existing CO concentrations, the simplified CALINE4 screening procedure was used to predict future CO concentrations at the study intersections in the vicinity of the campus in the year 2010. The results of air emissions modeling are shown in Table 4.2-8 (Future With Project Localized Carbon Monoxide Concentrations—Regular Session). As shown, future CO concentrations near these intersections would not exceed the national 35.0 ppm and State 20.0 ppm 1-hour ambient air quality standards or the national 9.5 ppm and State 9.1 ppm 8-hour ambient air quality standards when the 2002 LRDP is fully implemented. Therefore, sensitive receptors located in close proximity to these intersections would not be exposed to substantial pollutant concentrations, and the potential impacts of the 2002 LRDP would be less than significant. No mitigation is required. It should be noted that the CO concentrations shown in Table 4.2-8 (Future With Project Localized Carbon Monoxide Concentrations—Regular Session) are lower than the existing CO concentrations shown in Table 4.2-2 (Existing Localized Carbon Monoxide Concentrations—Regular Session) due to anticipated improvements in vehicle emission rates projected for the future by the ARB.

Table 4.2-8 Future With Project Localized Carbon Monoxide Concentrations—Regular Session

Intersection	CO Concentrations in Parts per Million[1,2]					
	25 Feet		50 Feet		100 Feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Church Ln./Ovada Pl. and Sepulveda Blvd.	7.1	4.7	6.5	4.3	5.9	3.8
Sunset Blvd. and Church Ln.	7.7	5.1	7.0	4.6	6.2	4.1
Sunset Blvd. and Veteran Ave.	6.7	4.4	6.2	4.0	5.7	3.7
Sunset Blvd. and Bellagio Way	7.7	5.1	7.0	4.6	6.2	4.1
Sunset Blvd. and Westwood Blvd.	5.9	3.8	5.5	3.6	5.2	3.4
Sunset Blvd. and Stone Canyon Rd.	5.8	3.8	5.5	3.5	5.1	3.3
Sunset Blvd. and Hilgard Ave./Copa del Oro Rd.	6.5	4.3	6.1	4.0	5.6	3.6
Sunset Blvd. and Beverly Glen Blvd.	8.4	5.6	7.5	5.0	6.6	4.4
Sunset Blvd. (east I/S) and Beverly Glen Blvd.	9.0	6.0	8.0	5.3	7.0	4.6
Montana Ave. and Sepulveda Blvd.	6.7	4.4	6.2	4.1	5.7	3.7
Montana Ave. and Levering Ave.	5.8	3.8	5.5	3.5	5.2	3.3
Montana Ave./Gayley Ave. and Veteran Ave.	5.9	3.8	5.5	3.6	5.2	3.4
Strathmore Pl. and Gayley Ave.	5.3	3.4	5.1	3.3	4.9	3.2
Levering Ave. and Veteran Ave.	5.1	3.3	4.9	3.2	4.8	3.1
Wyton Dr. and Hilgard Ave.	5.2	3.4	5.0	3.2	4.8	3.1
Wyton Dr./Comstock Ave. and Beverly Glen Blvd.	5.4	3.5	5.2	3.3	4.9	3.2
Westholme Ave. and Hilgard Ave.	5.2	3.3	5.0	3.2	4.8	3.1
Manning Ave. and Hilgard Ave.	5.2	3.4	5.0	3.2	4.8	3.1
Le Conte Ave. and Gayley Ave.	5.2	3.4	5.1	3.3	4.9	3.1
Le Conte Ave. and Westwood Blvd.	5.2	3.4	5.1	3.3	4.9	3.1
Le Conte Ave. and Tiverton Dr.	5.1	3.3	4.9	3.2	4.8	3.1
Le Conte Ave. and Hilgard Ave.	5.4	3.5	5.2	3.3	4.9	3.2
Weyburn Ave. and Gayley Ave.	5.5	3.5	5.2	3.4	5.0	3.2
Weyburn Ave. and Westwood Blvd.	5.4	3.5	5.2	3.3	5.0	3.2
Weyburn Ave. and Tiverton Dr.	4.7	3.0	4.6	3.0	4.6	2.9
Weyburn Ave. and Hilgard Ave.	5.1	3.3	4.9	3.2	4.8	3.1
Kinross Ave. and Westwood Blvd.	6.6	4.3	6.1	4.0	5.6	3.7
Lindbrook Dr. and Westwood Blvd.	5.4	3.5	5.2	3.4	5.0	3.2
Lindbrook Dr. and Tiverton Ave.	5.2	3.4	5.0	3.3	4.9	3.1
Constitution Ave. and Sepulveda Blvd.	5.4	3.5	5.2	3.4	5.0	3.2
Wilshire Blvd. and San Vicente Blvd.	10.5	7.1	9.4	6.3	8.1	5.4
Wilshire Blvd. and Sepulveda Blvd.	10.0	6.7	9.0	6.0	7.8	5.2
Wilshire Blvd. and Veteran Ave.	9.7	6.5	8.7	5.8	7.6	5.0
Wilshire Blvd. and Gayley Ave.	7.3	4.8	6.7	4.4	6.1	4.0
Wilshire Blvd. and Westwood Blvd.	6.9	4.5	6.4	4.2	5.9	3.8

Table 4.2-8 Future With Project Localized Carbon Monoxide Concentrations—Regular Session

Intersection	CO Concentrations in Parts per Million[1,2]					
	25 Feet		50 Feet		100 Feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Wilshire Blvd. and Glendon Ave.	6.2	4.1	5.9	3.8	5.5	3.6
Wilshire Blvd. and Malcolm Ave.	6.5	4.3	6.1	4.0	5.6	3.7
Wilshire Blvd. and Westholme Ave.	6.9	4.5	6.4	4.2	5.9	3.8
Wilshire Blvd. and Warner Ave.	6.8	4.5	6.4	4.2	5.9	3.8
Wilshire Blvd. and Beverly Glen Blvd.	7.0	4.6	6.5	4.3	6.0	3.9
Ohio Ave. and Sawtelle Blvd.	5.7	3.7	5.4	3.5	5.1	3.3
Ohio Ave. and Sepulveda Blvd.	6.9	4.5	6.3	4.2	5.8	3.8
Ohio Ave. and Veteran Ave.	6.5	4.3	6.0	3.9	5.6	3.6
Ohio Ave. and Westwood Blvd.	6.2	4.1	5.8	3.8	5.4	3.5
Santa Monica Blvd. and Sawtelle Blvd.	6.6	4.3	6.2	4.0	5.7	3.7
Santa Monica Blvd. and Sepulveda Blvd.	8.8	5.9	8.0	5.3	7.0	4.6
Santa Monica Blvd. (N) and Veteran Ave.	7.2	4.8	6.7	4.4	6.1	4.0
Santa Monica Blvd. (N) and Westwood Blvd.	6.6	4.3	6.2	4.0	5.7	3.7
Roscomare Rd. and Mulholland Dr.	6.0	4.0	5.7	3.7	5.3	3.4
Roscomare Rd. and Stradella Rd./Linda Flora Dr.	4.7	3.0	4.6	3.0	4.6	2.9
Chalon Rd. and Bellagio Rd.	4.8	3.1	4.7	3.0	4.6	3.0
Beverly Glen Blvd. and Mulholland Dr.	6.9	4.5	6.3	4.2	5.8	3.8
Beverly Glen Blvd. and Greendale Dr.	5.4	3.5	5.1	3.3	4.9	3.2

1. Federal 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.
2. Federal 8-hour standard is 9.5 parts per million. State 8-hour standard is 9.1 parts per million.

Source: EIP Associates, 2002. Calculation sheets are provided in Appendix 7 and are based on future ambient CO concentrations predicted by the SCAQMD.

Future summer traffic counts are also provided in the UCLA Long Range Development Plan Transportation Systems Analysis (included as Appendix 4). Background CO concentrations in the summer are substantially lower than they are in the winter when surface-based inversions trap the pollutants at ground levels. In SRA 2, 8-hour background concentrations of CO are less than 1.0 ppm in summer as opposed to averaging around 4.0 ppm in winter. In addition, intersection traffic volumes are lower in the summer months. Consequently, localized CO concentrations in the summer months would be lower than the levels shown in Table 4.2-8 (Future With Project Localized Carbon Monoxide Concentrations—Regular Session) and would also not exceed national or State ambient air quality standards. Therefore, localized CO concentrations during the summer session would remain less than significant following implementation of the 2002 LRDP, and no mitigation is required.

As discussed in Impact 4.13-14 in Section 4.13 (Transportation/Traffic) of this EIR, implementation of the 2002 LRDP would not result in an impact on public transit services during the regular and summer sessions, and no buses would need to be added to the number presently serving the campus and vicinity as a result of the 2002 LRDP. The campus has already worked with the Culver City Bus Company to re-route its #6 bus into the campus rather than to the Hilgard Bus Terminal. The campus has also collaborated with the Big Blue Bus line to provide an express bus that drives directly into the Westwood Plaza Ackerman Union turn-around on the campus. Both of these re-routing efforts have reduced the volume of buses at the Hilgard Bus Terminal. Therefore, no changes in bus service during the regular and summer session are anticipated as a result of implementation of the 2002 LRDP, and the impact of the 2002 LRDP on air quality associated with public transit (including the Hilgard Bus Terminal) would be less than significant. No mitigation is required.

Impact LRDP 4.2-7 **Implementation of the 2002 LRDP would not expose sensitive receptors on or off campus to substantial pollutant concentrations due to campus-generated toxic air emissions. This is considered a *less-than-significant* impact.**

The theoretical incremental cancer risk as a result of a lifetime exposure to emissions from the routine campuswide operation of all sources under the 2002 LRDP was estimated in the Health Risk Assessment (HRA) to be 6.4 in one million (6.4×10^{-6}) at the off-campus maximally exposed individual (MEI) and 7.5 in one million (7.5×10^{-6}) at the on-campus MEI. The off-campus MEI was calculated to be located east of the campus along Hilgard Avenue, and the location of the on-campus MEI is calculated to be in the southern portion of the campus, near Franz Hall. Potential risks at all other locations within the campus and surrounding vicinity would be lower. Because these risks are less than the CAPCOA and SCAQMD thresholds of 10 in one million, implementation of the 2002 LRDP would not generate toxic air emissions that result in excess human cancer risk from stationary sources, and the potential impacts would be less than significant. No mitigation is required.

The maximum chronic Hazard Index (HI) for an organ system was 0.11 at the off-campus MEI and 0.12 at the on-campus MEI. The off-campus MEI was calculated to be located east of the campus along Hilgard Avenue, and the location of the on-campus MEI is calculated to be in the southern portion of the campus, near Franz Hall. The maximum chronic HI at all other locations within the campus and surrounding vicinity would be lower.

The maximum acute HI for an organ system was 0.15 at the off-campus MEI and 0.12 at the on-campus MEI. The off-campus MEI was calculated to be located approximately 200 meters west of the campus boundary, and the on-campus MEI was calculated to be located at the UCLA Medical Center. The maximum acute HI at all other locations within the campus and surrounding vicinity would be lower.

Because these health effects are substantially less than an HI of 1.0, implementation of the 2002 LRDP would not generate toxic air emissions that result in a cumulative acute or chronic noncarcinogenic HI of 1.0 or greater and the impact would be less than significant. No mitigation is required.

Threshold	Would the project create objectionable odors affecting a substantial number of people?

Impact LRDP 4.2-8 **Implementation of the 2002 LRDP would not create objectionable odors affecting a substantial number of people. This is considered a *less-than-significant* impact.**

Construction activities occurring under the 2002 LRDP would generate airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust) and the application of architectural coatings. These emissions would occur during daytime hours only and would be isolated to the immediate vicinity of the construction site and activity. As such, they would not affect a substantial number of people.

Potential operational airborne odors could result from cooking activities associated with the NHIP. These odors would be similar to existing housing and food services uses on the campus and would be confined to the immediate vicinity of the new buildings. The other potential source of odors would be new trash receptacles within the campus. The receptacles would have lids and be emptied on a regular basis, before potentially substantial odors have a chance to develop. Consequently, implementation of the 2002 LRDP would not create objectionable odors affecting a substantial number of people and potential impacts would be less than significant. No mitigation is required.

4.2.4 Cumulative Impacts

The geographic context for air quality impacts is Source Receptor Area (SRA) 2 of the Basin. This area covers northwest Coastal Los Angeles County. The analysis accounts for all anticipated cumulative growth within this geographic area, as represented by full implementation of the City of Los Angeles General Plan Framework (see Section 4.8 [Land Use and Planning] for definition and discussion) and development of the related projects provided in Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Environmental Analysis). The General Plan Framework describes cumulative air quality impacts in the City portion of the Basin as being significant because the "General Plan Framework exceeds estimated 2010 thresholds for the City of Los Angeles." However, determination of the significance of cumulative air quality impacts is typically according to the project methodology employed by the SCAQMD, as the regional body with authority in this area, and which has taken growth envisioned by the General Plan Framework into consideration.

With regard to impacts relating to the exposure of sensitive receptors to substantial toxic pollutant concentrations, the geographic context for this analysis will be Westwood. For the purposes of impacts relating to objectionable odors, the geographic context is considered to be the Westwood area, due to the limited localized nature of odor impacts.

Cumulative development is not expected to result in a significant impact in terms of conflicting with, or obstructing implementation of, the AQMP and Amendment for Ozone. The AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Growth considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified in the Growth Management Chapter of the RCPG, implementation of the AQMP will not be obstructed by such growth. As growth in the Basin has not exceeded these projections, this is considered to be a less-than-significant cumulative impact. Additionally, since growth under the 2002 LRDP is consistent with growth under the RCPG (see Impact LRDP 4.10-1), and because of the continuing and extensive implementation of campus TDM measures, the impact of the 2002 LRDP is cumulatively less than significant. This is considered a *less-than-significant* impact.

Because the Basin is currently in nonattainment for ozone, CO, and PM_{10}, cumulative development could violate an air quality standard or contribute to an existing or projected air quality violation. Therefore, this is considered to be a significant cumulative impact. With regard to determining the significance of the 2002 LRDP contribution, the SCAQMD neither recommends quantified analyses of cumulative construction emissions nor provides methodologies or thresholds of significance to be used to assess cumulative construction impacts. For the purposes of this EIR, however, individual construction projects that exceed the SCAQMD recommended daily thresholds for project-specific impacts would be considered to cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment. As discussed previously under Impact LRDP 4.2-5, construction of a project such as the NHIP could cause a net increase in daily construction related emissions of NOx that exceed the thresholds of significance recommended by the SCAQMD during peak construction scenarios. While the Basin is currently in attainment for NO_2 levels (NO_2 is a pure form of NOx), because NOx is a precursor of ozone, for which the Basin is in nonattainment, construction under the 2002 LRDP would make a cumulatively considerable contribution to this significant impact. This significant impact is projected to occur as result of the NHIP peak construction scenarios outlined above, however, individual construction projects within the campus that do not exceed the SCAQMD recommended daily thresholds for project-specific impacts would not be considered to cause a cumulatively considerable increase in emissions. This is considered a *significant and unavoidable* impact.

With regard to daily operational emissions and the cumulative net increase of any criteria pollutant for which the region is in nonattainment, there is considered to be a significant cumulative impact, due to nonattainment of ozone, CO, and PM_{10} standards in the Basin. With regard to the contribution of the 2002 LRDP, the SCAQMD has recommended methods to determine the cumulative significance of new land use projects. The SCAQMD's methods are based on performance standards and emission reduction targets necessary to attain federal and State air quality standards as predicted in the AQMP. Under the SCAQMD methodology, as set forth in SCAQMD's *CEQA Air Quality Handbook*, because the 2002 LRDP shows more than a one percent per year reduction in daily project operational emissions of criteria pollutants, the 2002 LRDP does not contribute to a cumulatively considerable net increase of any criteria pollutant. Reference to Impact LRDP 4.2-6 and the analysis contained therein shows that the 2002 LRDP contribution of daily operational emissions is not expected to be cumulatively considerable. This is considered a *less-than-significant* impact.

Cumulative development is not expected to expose sensitive receptors to substantial pollutant concentrations. Impact LRDP 4.2-6 analyzed future exposure of sensitive receptors to substantial pollutant concentrations due to future growth in the Westwood area. Table 4.2-8 shows that projected future localized CO levels, including future off-campus projects, would not exceed national or State standards. Consequently, no significant cumulative impact will occur. As Impact LRDP 4.2-6 took into account emissions from the 2002 LRDP as well as those of off-campus projects, the 2002 LRDP contribution to this cumulative impact is also less than significant. It is also unlikely that projects in addition to those listed as related projects will result in future exposure of sensitive receptors to substantial pollutant concentrations, because CO levels are projected to be lower in the future due to improvements in vehicle emission rates predicted by the ARB. This is considered to be a *less-than-significant* impact.

With regard to operations of future development resulting in the exposure of sensitive receptors to substantial toxic pollutant concentrations, it is not expected that there will be a cumulatively significant impact. Cumulative development expected in the Westwood area is expected to mainly consist of office, commercial, and residential uses, which do not result in toxic emissions at levels that can be considered substantial. In addition, regulations and laws relating to toxic air pollutants will also protect sensitive receptors from substantial concentrations. Consequently, it is expected that future operations would result in a less-than-significant cumulative impact. The 2002 LRDP would also result in a less-than-significant contribution because analysis of 2002 LRDP operational impacts showed that the campus would result in an extremely small theoretical increment in cancer risk due to operational emissions, well below the CAPCOA and SCAQMD standard of 10 in one million to the maximally exposed individual, and also because acute and chronic noncancer health risks from operation of the 2002 LRDP would have a hazard index of less than 1.0. This is considered to be a *less-than-significant* impact.

Cumulative development would not have a significant impact in terms of the creation of objectionable odors affecting a substantial number of people. For this threshold, the relevant geographic area would be the Westwood area. Projects projected to be built in the Westwood area include residential and commercial developments, and could include restaurants. Odors resulting from the construction of these projects are not likely to affect a substantial number of people, due to the fact that construction activities do not usually emit offensive odors. Other odor impacts resulting from these projects are also not expected to affect a substantial amount of people, as garbage from these projects would be stored in areas and in containers as required by City and Health Department regulations, and restaurants are typically required to have ventilation systems that avoid substantial adverse odor impacts. Cumulative odor impacts would thus be less than significant. As analyzed in Impact LRDP 4.2-8, above, UCLA's contribution to odor impacts is also less than significant. This is considered to be a *less-than-significant* impact.

4.2.5 References

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4.3 BIOLOGICAL RESOURCES

This section of the EIR evaluates the potential for biological impacts associated with implementation of the 2002 LRDP. Impacts related to the visual quality of campus landscaping are presented in Section 4.1 (Aesthetics). The term "biological resources" designates both botanical and wildlife communities and species on the UCLA campus. For the purposes of this document, "special status" species include those species that have been recognized by either federal, State, private resource management agencies, or conservation organizations as having special management needs due to limited distribution, limited numbers, or significant population declines associated with natural or manmade causes. Special-status species include those designated as endangered, threatened, rare, protected, sensitive, or species of special concern according to the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), California Native Plant Society (CNPS), California Environmental Quality Act (CEQA), or any applicable regional plans, policies, or regulations.

Data used to prepare this section came from various sources, including recent studies of plants and wildlife on and near the UCLA campus, previous environmental documentation prepared for the UCLA campus, and other campus data sources. Full bibliographic entries for all reference materials appear in Section 4.3.5 (References) of this section. Additionally, EIP biologists, botanists, and avian specialists performed campus surveys on December 5, 2001 and April 22, 2002 to validate the existing data sets.

Comment letters issued in response to the Notice of Preparation circulated for the project were received from the California Department of Fish and Game (CDFG) and The Urban Wildlands Group, Inc. The CDFG comment letter requested that the EIR address (1) direct, indirect, and cumulative impacts to special status species, migratory birds, resident wildlife, and sensitive or special habitat types based upon a recent assessment of flora and fauna; (2) a range of alternatives to avoid or minimize impacts to biological resources; (3) the protection of wetlands, watercourses, and woodlands; and (4) mitigation measures that preserve biological and ecological resources. The comment letter from The Urban Wildlife Group, Inc. requested that the EIR address potential impacts to wildlife.

Refer to Volume 3, Chapter II (Text Changes)

4.3.1 Environmental Setting

Vegetation

According to a search of the California Natural Diversity Database System (CNDDB; CDFG 2001), no special-status plant species or communities have been reported on the campus, and none were observed during biological surveys conducted by EIP Associates on December 5, 2001, and April 22, 2002. Using the results of the CNDDB search (CDFG 2001), field data collected by EIP biologists (including botanists) in 2001 and 2002, three field surveys conducted by Keane Biological Consulting for the Northwest Campus Development (De Neve) Revised Phase II SEIR (November 18 and 26 and December 19, 1996), and an academic biological survey (Longcore *et al.* 1997, conducted in winter 1995–96), EIP compiled an updated list of plant species that have been observed or are expected to occur in the campus area. In Appendix 5 (Floral and Faunal Lists), Table A5-1A (Native Plant Species Observed and/or Expected to Occur in the Northwest Zone and/or Stone Canyon Creek) and Table A5-1B (Nonnative Plant Species Observed and/or Expected to Occur in the Northwest Zone and/or Stone Canyon Creek) show plant species that were either observed or are expected to occur on campus, none of which are considered special status.

Refer to Volume 3, Chapter II (Text Changes)

Impervious material covers approximately 64 percent of the ground surface area of the campus (Capital Programs Engineers 2002); the remaining 36 percent consists of landscaped courtyards, gardens, lawns, and planted hillsides. The majority of the vegetation on the UCLA campus consists of nonnative rather than native species, and all of the vegetation has been introduced along with the development of buildings. Numerous varieties of imported trees and shrubs that have adapted to the southern California climate have become the foundation of the campus reputation for a garden-like environment. Although some native plant species are present on the campus, interspersed among nonnative ornamental species, the presence of scattered native plant species does not indicate a sensitive natural community. Instead, plant and animal life on the campus now reflects the urban nature of the region. Consequently, although the campus is located close to the Santa Monica Mountains, it does not reflect the species diversity, richness, or composition of the native habitats contained in the mountains, which includes threatened, endangered, candidate, sensitive, or other special status species or habitats. Also, no wetlands have been observed on the campus. Stone Canyon Creek, the only area on campus in which wetlands are considered possible, would not be characterized as a federally protected wetland due to the lack of plants characterized as hydrophytic according to the *National List of Plant Species That Occur in Wetlands* (U.S. Fish and Wildlife Service, 1988), which is one of three mandatory criteria to designate an area as a jurisdictional wetland (U.S. Fish and Wildlife Service, 1988; refer also to Appendix 5, Tables A5-1A and A5-1B).

While the campus environment does not support special status plant species or communities or a predominance of native species, mature trees, which provide roosting, nesting, and foraging opportunities for migratory avian species and raptors during the nesting season (March to mid-August, depending on the species), constitute an on-campus biological resource. In addition, there are three areas of the campus where mature vegetation is denser than in remaining campus areas. These are described below.

Northwest Zone

The Northwest zone contains the campus student residential facilities and features several areas of densely planted trees. In addition, this zone contains a four-acre hillside between Veteran Avenue and Parking Lot 11. Portions of this area, once used to graze livestock, remain undeveloped. While Longcore *et al.* (1997) previously reported coastal sage scrub in the Northwest zone, the vegetation observed in this zone during December 2001 and April 2002 surveys was interspersed with various exotic ornamental species and was determined to be of sufficiently low quality not to be considered a sensitive natural community.

Stone Canyon Creek

Stone Canyon Creek is located east of the Corinne A. Seeds University Elementary School (UES) buildings and west of the Anderson Graduate School of Management (AGSM) and Charles E. Young Drive North. Despite its name, this feature is actually part of the University storm drain system and conveys flows through an underground box culvert both northeast of UES (at Royce Drive) and southeast of UES (at Collins Executive Education Center in the AGSM). The portion of Stone Canyon Creek adjacent to UES is subject to periods of very high discharge and is heavily vegetated with numerous exotic tree species, shrubs, and vines, as well as some native species. A large number of Canary Island pines *(Pinus canariensis)* and a smaller number of Montezuma cypresses *(Taxodium mucronatum)* dominate the area.

Mildred E. Mathias Botanical Garden

The Mildred E. Mathias Botanical Garden, situated in the southeastern portion of the campus, displays approximately 5,000 species of plants in 225 families (www.botgard.ucla.edu 2002). The focus of the garden is the cultivation of tropical and subtropical plant species, but it also serves as both a research center and an area accessible to the public to observe the numerous rare and exotic species cultivated there.

Wildlife

A search of the CNDDB (CDFG 2001) yielded no reports of threatened or endangered wildlife species within the campus. Using field data collected by EIP biologists on December 5, 2001, and April 22, 2002 as well as existing biological surveys (Keane Biological Consulting, conducted on November 18 and

26 and December 19, 1996; Longcore *et al.* 1997, conducted in winter 1995–96), an updated list of wildlife species that have been observed or are expected to occur within the campus was compiled for the 2002 LRDP. It appears as Appendix 5, Table A5-2 (Wildlife Species Observed and/or Expected to Occur on the UCLA Campus).

Wildlife associated with the UCLA campus consists primarily of native and nonnative amphibians, reptiles, birds, and mammals common to highly urbanized areas. Examples of wildlife and avian species observed on campus that are common to an urbanized landscape include opossum *(Didephius virginiana)*, California ground squirrel *(Spermophilus beecheyi)*, fox squirrel *(Sciurus niger)*, northern mockingbird *(Mimus polyglottos)*, American crow *(Corvus brachyrhynchos)*, mourning dove *(Zenaida macroura)*, and various other migrant songbirds (Longcore *et al.* 1997).

On December 5, 2001, EIP biologists observed a Cooper's hawk (*Accipiter cooperi*), which is a California Species of Special Concern, flying over the project area, and which is known to inhabit the mountains adjacent to the campus. Also, Longcore *et al.* (1997) reported sighting a sharp-shinned hawk (*Accipiter stiatus*), which is a California Species of Special Concern, in the Northwest campus zone during winter of 1995–96, although EIP biologists did not sight this species during the 2001 and 2002 surveys, and it was not listed in the CNDDB search conducted for the campus.

The Cooper's hawk and sharp-shinned hawk are categorized as "Third Priority" Species of Special Concern. Third Priority species "are not in any present danger of extirpation and their populations within most of their range do not appear to be declining seriously," but are included because of their small population sizes in California and are vulnerable if a threat to these populations should materialize (http://www.dfg.ca.gov/hcpb/species/ssc/sscbird/sscbird.shtml). Further, neither of these species is listed on the pending Draft California Species of Special Concern List (CDFG 2001), which has not yet been adopted and is not in effect.

Sightings of both of these hawks occurred in winter, when these species exhibit generalized habitat requirements (Baumgardner 2002; Johnsgaard 1990). Cooper's hawks are generally associated with woodlots and areas where woodlands occur in patches and groves, which could potentially include the campus, although this species prefers nesting near water (Baumgardner 2002; Johnsgaard 1990, p. 172). Also, nesting on the campus is considered to be unlikely given the level of human activity and general noise on the campus, because the species is noise-sensitive (Baumgardner 2002). Sharp-shinned hawk nesting habitat, which consists primarily of boreal (northern coniferous) forests, mixed coniferous-deciduous forests, and pure coniferous forests (Johnsgaard 1990), does not occur on the campus. Consequently, nesting on the campus is considered unlikely.

4.3.2 Regulatory Framework

Federal and State laws and regulations govern the protection of rare and endangered species and habitats. However, because no designated rare or endangered species are known or expected to exist on or in the immediate vicinity of the campus, only those regulations that apply to development anticipated under the 2002 LRDP are presented below.

Federal

Migratory Bird Treaty Act

Pursuant to the Migratory Bird Treaty Act (MBTA) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 U.S.C. Section 703), except as allowed by permit pursuant to 50 CFR, Part 21. The statute states:

> Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the [Migratory Bird] conventions...

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment:

- Accipitridae (kites, hawks, and eagles)
- Cathartidae (New World vultures)
- Falconidae (falcons and caracaras)
- Pandionidae (ospreys)
- Strigidae (typical owls)
- Tytonidae (barn owls)

The provisions of the 1972 amendment to the MBTA protect all species and subspecies of the families listed above.

State

Unlawful Take or Destruction of Nests or Eggs

Section 3503.5 of the Fish and Game Code of California specifically protects birds of prey. The Code states:

> It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

Section 3513 of the Fish and Game Code of California duplicates the federal protection of migratory birds. The Code states:

> It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.

California Environmental Quality Act—Treatment of Listed Plant and Animal Species

The Federal Endangered Species Act and California Endangered Species Act protect only those species formally listed as threatened or endangered (or rare in the case of the State list). However, Section 15380 of the CEQA Guidelines independently defines "endangered" species of plants or animals as those whose survival and reproduction in the wild are in immediate jeopardy, and "rare" species as those who are in such low numbers that they could become endangered if their environment worsens.

4.3.3 Project Impacts and Mitigation

Analytic Method

Assessing potential impacts to biological resources resulting from the implementation of the 2002 LRDP began with a review of the available literature to determine the potential presence of special status biological resources within the project site. Sources used in this review included

- Data collected for other projects/studies within the campus and adjacent areas
- The California Natural Diversity Database
- Federal and State agency lists of special-status species
- Federal, State, and local regulations/policies that apply to the project site

Upon completion of the literature review, a list was compiled of species potentially occurring within the campus. Subsequently, field surveys were conducted to prepare a list of observed species and to assess the adequacy of habitat for potentially occurring species. EIP staff biologists and avian specialists performed field surveys on December 5, 2001, and April 22, 2002, from 6:30 A.M. to 5:30 P.M. The surveys included the entire campus, but emphasized the more densely vegetated Northwest zone, Stone Canyon Creek, and Mildred E. Mathias Botanical Garden. Surveys consisted of walking several transects within each area and documenting the observed wildlife, tracks, and/or droppings. Avian surveys identified species by either visual observation or by vocalization recognition. Results from these surveys were combined with the previously documented observed species lists prepared by Keane Biological Consulting for the Northwest Campus Development (De Neve) Revised Phase II SEIR (November 18 and 26 and December 19, 1996) and an existing biological survey of portions of the Northwest zone (Longcore *et al.* 1997, conducted in winter 1995–96). Using this comprehensive species list, as well as published habitat preferences and general topographical maps of the campus area, the potential effects of implementation of the 2002 LRDP on biological resources were assessed using the thresholds of significance outlined below.

Additionally, mature trees are assumed to provide potential habitat (roosting, nesting, and foraging opportunities) for avian species observed on the campus. The definition of a mature tree adopts the definition used by the City of Los Angeles; mature trees are defined by the City of Los Angeles as being healthy trees measuring 12 inches or greater in diameter, four feet above the ground (City of Los Angeles 2002).

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines, except where noted. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on biological resources if it would result in any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations; or by the California Department of Fish and Game; or by the U.S. Fish and Wildlife Service
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations; or by the California Department of Fish and Game; or by the U.S. Fish and Wildlife Service
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan

Effects Not Found to Be Significant

Threshold	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations; or by the California Department of Fish and Game; or by the U.S. Fish and Wildlife Service?

The Initial Study determined that implementation of the 2002 LRDP would not result in significant impacts to riparian habitat or to federally protected wetlands. Stone Canyon Creek is the only area on campus where the potential exists for riparian habitat, and EIP staff biologists determined, during the December 2001 and April 2002 surveys discussed above, that Stone Canyon Creek is not characterized by any officially designated sensitive riparian community, such as Foothill Riparian, Oak Woodland, or Sycamore Woodland, and that development under the 2002 LRDP does not propose any long-term or permanent alterations to the Creek. Additionally, as described above, a search of the CNDDB (CDFG 2001) revealed that no sensitive natural plant communities have been reported on the campus. Consequently, the Initial Study (included in Appendix 2 [March 20, 2002, Revised NOP/IS and Comment Letters]) concluded that no additional analysis of riparian resources is required in this EIR.

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

The campus does not contain jurisdictional wetlands, as determined by EIP staff biologists during the December 2001 and April 2002 surveys discussed above, because no portion of the campus includes a predominance of plants characterized as hydrophytic by the *National List of Plant Species that Occur in Wetlands*, which is one of three mandatory criteria to designate an area as a jurisdictional wetland (U.S. Fish and Wildlife Service, 1988; refer also to Appendix 5, Tables A5-1A and A5-1B). Additionally, as stated above, a search of the CNDDB (CDFG 2001) revealed that no threatened or endangered flora or sensitive natural communities (which include riparian communities and could indicate wetlands) have been reported on the campus. Consequently, the Initial Study (included in Appendix 2) concluded that no additional analysis of wetlands or other sensitive plant communities is required in this EIR.

Threshold	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

UCLA is a part of the University of California, a constitutionally created unit of the State of California. As a state entity, UC is not subject to municipal plans, policies, and regulations, such as the County and

City General Plans or local ordinances. However, UCLA values its natural resources, such as mature trees, and objectives of the 2002 LRDP include development in accordance with sustainability principles as well as preservation and enhancement of landscaping, as discussed in Chapter 3 (Project Description). Further, because the campus values its relationship with the local communities, it voluntarily reviewed the policies in the City of Los Angeles General Plan Framework and Westwood Community Plan for inconsistency and found no specific policies that address biological resources on the UCLA campus. Consequently, the Initial Study (included in Appendix 2 of this document) determined that no conflict would occur, and no further analysis is required in this EIR.

Threshold	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

The campus is not located within an area designated by any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. Therefore, the Initial Study (included in Appendix 2 of this document) concluded that no additional analysis of the consistency of the 2002 LRDP with any such plan would be required, as no such plan has been developed with respect to the campus or any of the species present.

Impacts and Mitigation

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

Impact LRDP 4.3-1 **Implementation of the 2002 LRDP could have a substantial adverse effect as a result of the direct loss of nesting habitat for resident and migratory avian species of special concern and raptors. This is considered a *potentially significant* impact.**

As mentioned in Section 4.3.1 (Environmental Setting), no endangered, rare, threatened, or special status plant or animal species (or associated habitats) designated by the U.S. Fish and Wildlife Service, California Department of Fish and Game, or California Native Plant Society were reported in the search of the CNDDB performed for the campus. However, a sharp-shinned hawk was observed by Longcore *et al.* in winter 1996 in the Northwest campus zone, and a Cooper's hawk was observed over the Northwest campus zone by EIP biologists in December 2001, though neither of these species is considered likely to breed on the campus as described above and summarized further below. While

CEQA independently defines endangered and rare species, the definitions are substantially similar to those provided by the federal and State Endangered Species Acts, and none of the biological studies conducted at the campus, nor any of the literature research, indicated that the presence of species would be considered endangered or rare according to CEQA or the State or federal Endangered Species Acts. Further, there are no local or regional plans, policies, or regulations that apply to the limited biological resources of the UCLA campus.

Development under the 2002 LRDP may remove, modify, or disturb trees, shrubs, and herbaceous plants. As with most urbanized areas, these landscape features constitute the majority of available wildlife habitat on the campus. In particular, mature trees provide nesting and/or roosting opportunities for migratory avian species and raptors, including, but not necessarily limited to, the yellow-rumped warbler *(Dendroica coronata)*, the western tanager *(Piranga ludoviciana)*, and the common raven *(Corvus corax)*. Migratory avian species and raptors, which may use portions of the campus during breeding season, are protected under the MBTA and by the Fish and Game Code of California. The numerous mature trees within the campus provide potential nesting habitat for common migratory avian species.

As previously discussed, the campus does not provide suitable nesting habitat for the sharp-shinned hawk, which consists primarily of boreal (northern coniferous) forests, mixed coniferous-deciduous forests, and pure coniferous forests (Johnsgaard 1990). Therefore, the likelihood of that hawk species nesting on the campus is considered extremely low. The noise and activity level on campus also make the likelihood low for the Cooper's hawk nesting on campus, which is particularly noise-sensitive. Further, this species preference for nesting in wooded areas near water indicates that if nesting occurred on the campus, the probable location for this would be the wooded areas surrounding Stone Canyon Creek, an area that would not be subject to development under the 2002 LRDP and is adjacent to areas of heavy activity (Corinne A. Seeds University Elementary School and Anderson Graduate School of Management). Disturbance of Cooper's hawk or sharp-shinned hawk nests by construction activities resulting from implementation of the 2002 LRDP is, therefore, considered unlikely. As described above, both raptors are "Third Priority" species of special concern, which are defined by the CDFG as not being in any present danger of extirpation in California, with no substantial decline in populations; and the pending draft list of Species of Special Concern (July 2001, not yet adopted or in effect) does not include either the Cooper's hawk or sharp-shinned hawk. Development under the 2002 LRDP would not be considered to have a substantial adverse effect, either directly or through habitat modifications, on either of these species.

The removal or pruning of mature trees on the campus to allow for project implementation, as well as the dust, noise, and/or increased human presence associated with project construction, could impact raptors or migratory avian species by creating the potential for the disturbance of an occupied nest during the breeding season, as well as reducing potential roosting, nesting, and foraging opportunities. The loss of an occupied nest during the breeding season for raptors or migratory avian species as a result of construction or demolition activities would constitute a substantial adverse effect under the Migratory Bird Treaty Act, unless permitted by the California Department of Fish and Game. However, MM 4.3-1(a) requires a pre-construction survey to determine whether raptors or migratory avian species are nesting within a construction site, and MM 4.3-1(b) requires the provision of a buffer zone if occupied nests are found, as well as the development, in consultation with the CDFG, of additional protective measures that respond to the specific circumstances observed.

Additionally, as described above, development and construction activities for projects implemented under the 2002 LRDP could result in a reduction in potential roosting, nesting, and foraging opportunities for raptors and migratory avian species. The loss of such opportunities could constitute a substantial, indirect effect on these avian species, which would constitute a potentially significant impact. However, MM 4.3-1(c) requires each project proposed under the 2002 LRDP to prepare a replacement plan for mature trees (healthy trees that measure 12 inches or greater in diameter at 4 feet above the ground) that would be removed. Also, continued implementation of campus PP 4.3-1(a) through PP 4.3-1(e) provides protective and maintenance measures for mature trees that would be retained or relocated.

The following mitigation measures shall be implemented:

MM 4.3-1(a) *Prior to the onset of construction activities that occur between March and mid-August, surveys for nesting special status avian species and raptors shall be conducted on the affected portion of the campus following USFWS and/or CDFG guidelines. If no active avian nests are identified on or within 250 feet of the construction site, no further mitigation is necessary.*

MM 4.3-1(b) *If active nests for avian species of concern or raptor nests are found within the construction footprint or a 250-foot buffer zone, exterior construction activities shall be delayed within the construction footprint and buffer zone until the young have fledged or appropriate mitigation measures responding to the specific situation have been developed and implemented in consultation with CDFG.*

MM 4.3-1(c) *In conjunction with CEQA documentation required for each project proposal under the 2002 LRDP, a tree replacement plan shall be prepared and implemented. The* *tree replacement plan for each project shall determine the appropriate number of replacement trees in relation to the specific project site characteristics. The tree replacement plan would ensure that the appropriate number of new trees is planted within the available site area so that each tree planted has sufficient space to grow and thrive. (This is identical to Aesthetics MM 4.1-2.)*

In addition, the following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.3-1(a) *Mature trees to be retained and protected in place during construction, shall be fenced at the drip-line, and maintained by the contractor in accordance with landscape specifications contained in the construction contract.*

PP 4.3-1(b) *Trees shall be examined by an arborist and trimmed, if appropriate, prior to the start of construction.*

PP 4.3-1(c) *Construction contract specifications shall include the provision for temporary irrigation/watering and feeding of these trees during construction, as recommended by the designated arborist.*

PP 4.3-1(d) *Construction contract specifications shall require that no building material, parked equipment, or vehicles shall be stored within the fence line.*

PP 4.3-1(e) *Examination of these trees by an arborist shall be performed monthly during construction to ensure that they are being adequately maintained.*

Implementation of MM 4.3-1(a) through MM 4.3-1(c) would reduce potential direct effects to raptors and migratory avian species to a less-than-significant level by identifying occupied nests, delaying construction if necessary, and providing a buffer zone around occupied nests to ensure that no take or destruction of nests or eggs occurs. In addition, MM 4.3-1(b) allows for the development, in consultation with the CDFG, of other appropriate measures specific to observed circumstances to further protect occupied nests, eggs, or young. Implementation of MM 4.3-1(c) would ensure that the long-term habitat value provided by trees on campus is maintained through the provision of replacement trees. Continued adherence to campus PP 4.3-1(a) through PP 4.3-1(e) would ensure that habitat value (nesting, roosting, and foraging opportunities) for retained trees would be maintained by requiring protection from construction activities, including regular care by an arborist.

Threshold	Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Impact LRDP 4.3-2 **The 2002 LRDP construction could interfere with the movement of resident and migratory avian species of special concern and raptors. This is considered a *potentially significant* impact.**

The campus does not provide any fisheries habitat. While Stone Canyon Creek is an open storm drain channel through an approximately 500-foot reach of the campus, it flows as an underground box culvert both upstream and downstream of the campus, which prohibits its use for fisheries resources. The campus also does not operate (in whole or part) as a native wildlife nursery site; no such sites were observed during surveys by biologists, and such sites are generally located in marshes, wetland margins, and tidal zones. Further, as described in the Initial Study prepared for the project, the campus does not serve as a connection between natural areas and, consequently, does not serve as a wildlife corridor.

As described under Impact LRDP 4.3-1, demolition and construction activities associated with implementation of the 2002 LRDP could result in the removal of mature trees on the campus. Although the potential habitat provided by these mature trees on the campus is urban in character and quality, the removal of mature trees on the campus during breeding season could interfere with the movement of migratory raptors and avian species by disrupting nesting activities or reducing nesting, roosting, and foraging opportunities. This would constitute a potentially significant impact.

Implementation of 2002 LRDP MM 4.3-1(c) would also reduce, to a less-than-significant level, indirect impacts on migratory avian species of special concern or raptors by ensuring, through the provision of replacement trees, that the habitat value (nesting, roosting, and foraging opportunities) would continue to be provided in the long-term. In addition, following 2002 LRDP PP 4.3-1(a) through PP 4.3-1(e) would ensure the health of the mature trees to be retained and relocated by requiring protection of the trees from construction activities, as well as regular care by an arborist throughout the duration of construction activities that could affect the trees.

As discussed above for Impact LRDP 4.3-1, MM 4.3-1(a) and MM 4.3-1(b) would mitigate, to a less-than-significant level, direct impacts upon nesting activities of raptors or other migratory avian species by surveying for, and actively protecting, occupied nests. Additionally, whenever feasible, the campus would continue to box and relocate mature trees that would otherwise be removed for construction. With implementation of MM 4.3-1(a) and MM 4.3-1(b), this impact would be reduced to a less-than-significant level.

4.3.4 Cumulative Impacts

The geographical context for the analysis of cumulative biological impacts includes the West Los Angeles Community Plan area (which includes the UCLA campus), as well as the Bel Air–Beverly Crest and Brentwood–Pacific Palisades Community Plan areas, which cover the largest portion of the Santa Monica Mountains within the City of Los Angeles. This analysis accounts for all anticipated cumulative growth within this geographic area, as represented by full implementation of the City of Los Angeles General Plan Framework and development of the related projects in Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Environmental Analysis).

Cumulative development is not likely to have a substantial adverse effect, either directly or through habitat modifications, on sensitive species. As is the case with the UCLA campus itself, land uses adjacent to the campus and in the surrounding region are generally established urban communities: little additional development is expected to occur in the residential areas to the immediate north, west, and east of the campus, and Westwood Village, to the south of the campus, is largely developed with commercial uses. Additionally, because the Community Plan Areas that surround that campus are highly developed or are precluded from development (such as certain areas within the Santa Monica Mountains), projects that would occur are most likely to consist of the conversion of vacant land and low-density uses to higher-density uses, and would not involve impacts to sensitive species or significant habitat alteration. Within the geographical area of cumulative analysis, opportunities for roosting and foraging by avian species during migratory stop-over periods would typically be limited to more densely vegetated areas, such as parks, large-lot residences with heavy landscaping (such as those to the north, east, and west of campus), and other sites with large expanses of vegetated open space, such as the Los Angeles National Cemetery or the Veterans Administration property near the campus. Further, the Santa Monica Mountains, which include protected areas of habitat, as well as contiguous natural areas, would continue to provide higher quality habitat than is available in the more highly developed urban areas. These areas are not anticipated for extensive development within the period of the 2002 LRDP. For all of these reasons, cumulative impacts on sensitive species and habitat would be *less than significant*.

Even in the event that cumulative impacts on sensitive species or their habitat could occur on a regional basis as a result of growth in areas adjacent to natural open spaces, development under the 2002 LRDP would not make a significant contribution to these cumulative impacts. As discussed above with respect to Impact 4.3-1, with the implementation of Mitigation Measures 4.3-1(a) through 4.3-1(e), the continuation of existing programs, policies, and practices (PP 4.3-1(a) through PP 4.3-1(e)), and the avoidance of development in some of the more vegetated areas of the campus (Stone Canyon Creek, Mathias Botanical Garden) habitat values on the campus will be maintained. As a result, the contribution of the 2002 LRDP to direct or indirect impacts on sensitive species or habitat, when considered in conjunction with the cumulative projects in the area, would not be cumulatively considerable and is less than significant. This is considered to be a *less-than-significant* impact.

Cumulative impacts of development upon migratory wildlife species, including raptors and other avian species, or the movement of these species, is not likely to be significant. Due to the general lack of habitat for migratory species at the various sites proposed for development by the related projects, cumulative development is not likely to affect migratory species or impede their movement or migration. In addition, it is anticipated that future development would be subject to the Migratory Bird Treaty Act, and where applicable, the federal and State Endangered Species Acts, which would either preclude disturbance of occupied nests, or would require appropriate measures to ensure the safety and preservation of affected species. Even if the effects of cumulative development were to combine in a way which significantly affected migratory species, the 2002 LRDP's contribution to this impact would be less than significant. As discussed above under Impact 4.3-2, Mitigation Measures 4.3-1(a) and 4.3-1(b) would mitigate, to a less-than-significant level, direct impacts upon nesting activities of raptors or other migratory species of special concern by surveying for, and actively protecting, occupied nests. Implementation of Mitigation Measure 4.3-1(c) would reduce indirect effects on migratory avian species by maintaining the habitat values of removed mature trees through the preparation of a Tree Replacement Plan for each project proposed under the 2002 LRDP. Additionally, whenever feasible, the campus would continue to box and relocate mature trees that would otherwise be removed for construction. As a result, the contribution of the 2002 LRDP to cumulative impacts on migratory species would not be cumulatively considerable. This is considered to be a *less-than-significant* impact.

4.3.5 References

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4.4 CULTURAL RESOURCES

This section describes the cultural (historical, archaeological, and paleontological) resources present or potentially present on the UCLA campus and evaluates the potential effects of development under the 2002 LRDP during the planning horizon on those resources. Significant cultural resources on the campus include structures that may be eligible for the National Register of Historic Places or the California Register of Historical Resources. Landscape features of the campus are discussed in Section 4.1 (Aesthetics) of this document.

Preparation of this section used data from various sources. These sources include the UCLA Campus Profile 2001, 1990 LRDP Mitigation Monitoring Program 2000 Status Report, a Paleontological Resource Assessment of the UCLA Campus, Los Angeles County, California, prepared by Hugh M. Wagner, Ph.D. in December 2001, a standard cultural resources records check from the California Historic Resources Information System (CHRIS) South Central Coastal Information Center, completed in December 2001, a sacred lands file check from the Native American Heritage Commission, completed in March 2002, previous environmental documentation prepared for the UCLA campus, and other campus data sources. Full bibliographic entries for all reference materials are provided in Section 4.4.5 (References).

A comment letter from the Native American Heritage Commission responding to the Notice of Preparation circulated for the project requested study of the potential for the proposed 2002 LRDP to affect archaeological resources and Native American sacred lands and values.

4.4.1 Environmental Setting

Historical Resources of the UCLA Campus

Overview of Campus History

The first structure built on campus was the bridge over the arroyo, completed in 1927. Following were the first four major buildings (Haines Hall, Kinsey Hall, Powell Library, and Royce Hall) sited on a mesa now called Dickson Plaza. George W. Kelham of San Francisco designed the Powell Library and the original Chemistry Building (now known as Haines Hall); and Allison and Allison of Los Angeles designed Royce Hall and the original Physics-Biology Building (Kinsey Hall). Royce Hall is considered to be one of the best examples of the Lombardian Romanesque style. The design for the building was inspired by the Basilica of St. Ambrogio in Milan, Italy. The Lombardian style, with Romanesque antecedents, is reflected in the architectural design and materials of the four original buildings and has been incorporated in many of the later campus buildings.

Under Kelham's direction, other structures were built in the 1930s. They include Moore Hall, the University Residence, Mira Hershey Residence Hall, and the Janss Steps. Soon thereafter, Kerckhoff Hall, the Men's Gym, and the Dance Building (now called Glorya Kaufman Hall) were constructed.

Allison and Allison were appointed as UCLA's Supervising Architects, replacing Kelham upon his retirement in 1935. Buildings constructed under the direction of David R. Allison include: Franz Hall and the first wing of the Administration Building (Murphy Hall). The arroyo was filled in on either side of the bridge during the tenure of Allison and Allison.

Dodd Hall was constructed in 1948 bounding the Dickson Court quadrangle. The Corinne A. Seeds University Elementary School (UES), which is of more recent construction (1950–58), was designed by Richard Neutra and Robert Alexander and became a prototype for post-World War II school design. Other buildings constructed in the early 1950s, and which have reached 50 years of age, include Engineering I (1950), Law Building (1951), Botanical Garden Lathouse (1952), Geology Building (1952), Perloff Hall (1952), and Young Hall (1952).

Definitions of Historical Resources

The National Historic Preservation Act established the National Register of Historic Places (NRHP) to recognize resources associated with the country's history and heritage. Structures and features must usually be at least 50 years old to be considered for listing on the NRHP, barring exceptional circumstances. Criteria for listing on the NRHP, which are set forth in Title 26, Part 63 of the Code of Federal Regulations (36 CFR Part 63), are significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that are *(A)* associated with events that have made a significant contribution to the broad patterns of our history; *(B)* associated with the lives of persons significant in our past; *(C)* embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction; or *(D)* have yielded, or may be likely to yield, information important in prehistory or history. Criterion D is usually reserved for archaeological and paleontological resources.

The California Register of Historical Resources (CRHR) was created to identify resources deemed worthy of preservation on a State level and was modeled closely after the NRHP. The criteria are nearly identical to those of the NRHP but focus upon resources of statewide, rather than national, significance. The CRHR automatically includes resources listed on the NRHP.

Identification of Historical Resources on Campus

Table 4.4-1 (Campus Structures 50 or More Years Old) lists campus facilities that were at least 50 years of age at the time that the Notice of Preparation of this Draft EIR was circulated for public review. Many of the structures listed have previously been determined to be eligible for the NRHP or CRHR as part of a historic district (the campus historic core) by the State Historic Preservation Office. The University Residence has also previously been determined to be eligible for listing on the NRHP.

Table 4.4-1 Campus Structures 50 or More Years Old

Structure	Date of Construction	Age	NRHP or CRHR Eligibility
Botanical Garden Lathouse	1952	50	No[2]
Bridge under Dickson Plaza	1927	75	Eligible[3]
Dodd Hall	1948	54	Potentially Eligible[1]
Engineering Building I	1950	52	No[2]
Franz Hall	1940	62	No[2]
Geology Building	1952	50	No[2]
Haines Hall	1929	73	Eligible[3]
Hershey Hall	1931	71	Eligible
Janss Steps	1929	73	Eligible[3]
Glorya Kaufman Hall (formerly Dance Building)	1932	70	Eligible[3]
Kerckhoff Hall	1930	72	Eligible[3]
Kinsey Hall	1929	73	Eligible[3]
Law Building	1951	51	No[2]
Men's Gymnasium	1932	70	Eligible[3]
Moore Hall	1930	72	Eligible[3]
Murphy Hall (portions)	1937	65	Eligible[3]
Perloff Hall	1952	50	No[2]
Powell Library	1930	72	Eligible[3]
Royce Hall	1929	73	Eligible[3]
Seeds University Elementary School	1950	52	Potentially Eligible[1]
University Residence	1930	72	Eligible[4]
Young Hall (W. G. Young)	1952	50	No[2]

1. "Potentially Eligible" identified during December 17, 2001 or January 13, 2002 field survey
2. Identified as not likely to be a historic resource during December 17, 2001 or January 13, 2002 field survey
3. Previously identified as part of the historic campus core
4. Previously determined eligible by the SHPO

Sources: UCLA Campus Profile 2001 (UCLA 2002) and EIP Associates

The Campus Historic Core

According to the State Historic Building Code Board (1990), the campus historic core is formed by Royce Hall (1929), along with Powell Library (1929) across Dickson Plaza (including the bridge) to the south, and with Haines Hall (1929) to its East, Kinsey (1929) to its Southeast, and its linkage to Moore Hall (1930), Kerckhoff Hall (1931), the Men's Gym (1932), and Glorya Kaufman Hall (1932) at the foot of Janss Steps. Murphy Hall (1937) is also considered to be part of the historic campus core. In addition to the oldest and grandest campus structures, the historic core includes urban design elements, such as decorative sidewalks, landscape design, and ornamental lights of Dickson Plaza and Janss Steps.

Recent Surveys

On December 17, 2001 and January 13, 2002, EIP Associates conducted reconnaissance-level surveys of the campus structures that have turned 50 since 1990 (i.e., constructed after 1940) to determine which structures may be eligible for the NRHP or the CRHR. Additionally, SHPO designation (State of California, Department of General Services 1990) was consulted for additional information on the NRHP status of these structures. The results of these historic resources surveys are described below.

Botanical Garden Lathouse

The Botanical Garden Lathouse is a one-story, shed-style support building for the Mathias Botanical Garden and the Botany Building. Although the building is relatively unaltered, it does not represent a distinctive architectural style, nor does it have any associations with local events or with Mildred E. Mathias. As a result, the Lathouse does not appear eligible for listing on the NRHP or CRHR.

Dodd Hall

Dodd Hall could be eligible for listing on the NRHP under Criteria B and C and for listing on the CHRH under Criteria 2 and 3, based on Dodd Hall's association with Paul A. Dodd (influential former dean of the College of Letters and Sciences), the position of the structure as part of the Dickson Court quadrangle (which was a part of the original 1920s campus plan), and the Romanesque Revival architectural style (with a high level of design integrity).

Engineering I

Although Engineering I exhibits some modern stylistic elements, the building does not exhibit the more distinctive features associated with high-style Modern Architecture, such as large expanses of glass, slender steel-frame construction, or hanging curtain walls. The building lacks architectural distinction and does not appear to be associated with any notable historical figures or master architects. Consequently, Engineering I does not appear eligible for either the NRHP or CRHR.

Franz Hall

Franz Hall was named for Shepard Ivory Franz, the first chairman of the UCLA Department of Psychology. A psychologist of national reputation, Franz worked for the Government Hospital for the Insane in Washington, D.C. prior to his employment at UCLA. While not one of the original campus buildings, Franz Hall was one of the earlier buildings constructed on campus, with stylistic similarities to Royce Hall and Kinsey Hall. However, later alterations and additions to the building (1960, 1967, and 1970) were stylistically divergent, and the building no longer retains its original plan or appearance on the south and east elevations. As a result, Franz Hall does not appear to retain sufficient integrity to be considered eligible for listing on the NRHP or CRHR.

Geology Building/Young Hall (Combined Structure)

The Geology Building and Young Hall were constructed in 1952 as a shared structure. Young Hall was named for and associated with William Gould Young, dean of the Division of Physical Sciences in the College of Letters and Science during his 40-year tenure at UCLA. However, additions to the structure have altered the original plan and appearance of the building to the degree that it no longer retains its historical integrity. Young Hall does not appear eligible for the NRHP or CRHR.

Law Building

The UCLA School of Law was originally built in 1951, designed by the architecture firm of Risely & Gould. The building completes the north side of a quadrangle (Dickson Court), which was part of the original design for the campus in the 1920s, and echoes some of the Romanesque Revival forms and materials found on many of the older academic buildings. Later additions, (1967, 1989, 1997) echo some of the forms and materials of the original 1951 structure yet are extensive and clearly differentiated as more modern designs. The attached, four-story law library completed in 1997 has a top floor that is set back with decorative trelliswork and deviates from the 1951 design more substantially than earlier additions, which substantially reduces the historic architectural integrity of the building. As a result, the School of Law does not appear eligible for either the NRHP or the CRHR.

Perloff Hall

Perloff Hall is situated atop the original arroyo, which was filled for campus expansion purposes in the 1940s. This building, along with Schoenberg Hall, frames the Dickson Court and the Arroyo Bridge in a formal arrangement of campus open spaces. However, a 1968 addition to the rear of the building has altered the plan and appearance of the building, which was sufficient to reduce the integrity of the building. As a result, Perloff Hall does not appear eligible for the NRHP or CRHR.

Corinne A. Seeds University Elementary School

The Corinne A. Seeds University Elementary School, constructed in 1950, was named for and associated with Corrine A. Seeds, a pioneer in the field of education. Richard Neutra designed the structure in association with Robert E. Alexander. Neutra was one of the first European modernists to bring Modern Architecture to the Los Angeles area. The school became a prototype for modern school design. The Corrine A. Seeds University Elementary School appears eligible for the NRHP under Criterion A/CRHR Criterion 1, NRHP Criterion B/CRHR Criterion 2, and NRHP Criterion C/CRHR Criterion 3.

Archaeology of the UCLA Campus

Prehistoric Context

Prehistoric settlement in the Los Angeles Basin appears to have been shaped by an environment that favored subsistence practices and may have consisted of either villages or temporary/seasonal camps of special functions. Native American sites used in the harvest of marine foods formed a band along the Los Angeles Basin coast north from the Ballona wetlands. Inland sites often appeared near springs or seeps or in proximity to oak groves. Other sites, many undocumented, were located to take advantage of desirable faunal, mineral, wild plant, and seed resources. The sacred lands file check completed for the project by the Native American Heritage Commission (Wood 2002) did not indicate the presence of any Native American cultural resources in the vicinity of the campus.

Archaeological Resources on the UCLA Campus

The 1990 LRDP EIR estimated a low probability that archaeological remains were present on the campus, and no archaeological remains have been found during excavations for projects since 1990 (1990 LRDP EIR Mitigation Monitoring Program 2000 Status Report, 42-43). Further, no archaeological remains have ever been recovered or recorded on campus.

An updated archaeological and historical assessment of the UCLA campus was conducted in December 2001. This assessment consisted of research of archival sources by personnel of the CHRIS South-Central Coastal Information Center, located at the California State University, Fullerton, and followed the guidelines established by the California State Historic Preservation Office.

According to the records search, twenty-one cultural resources investigations have been conducted within a half-mile radius of the campus, including nine on the campus. Fifteen additional studies conducted in the USGS Santa Monica 7.5-foot quadrangle lacked sufficient location information to map them or determine their distance from campus. No evidence of archaeological remains on the UCLA campus or within half mile of the campus has been discovered. While the possibility of discovering archaeological remains during excavation for future campus projects cannot be completely discounted, the likelihood of encountering such resources is considered extremely low based upon the fact that no archaeological remains have been recovered or recorded on campus.

Paleontology of the UCLA Campus

Paleontologic resources include fossil remains, fossil localities, and formations that have produced fossil material in other nearby areas. Paleontologic resources are limited, nonrenewable, sensitive scientific and educational resources protected by federal environmental laws and regulations. As recognized here, paleontological resources include fossils preserved either as impressions of soft (fleshy) or hard (skeletal) parts, mineralized remains of skeletons, tracks, or burrows; other trace fossils; coprolites (fossilized excrement); seeds or pollen; and other microfossils from terrestrial, aquatic, or aerial organisms. No unique geological feature is known to exist on the campus.

Dr. Hugh M. Wagner, Collections Manager for Fossil Vertebrates at the San Diego County Museum of Natural History, assessed the probability and nature of potential fossil remains on the UCLA campus. This assessment included research to determine which rock units underlie the campus and a literature survey to assess whether these rock units are fossil-bearing. Dr. Wagner identified three rock units beneath the UCLA campus: Upper Miocene Marine, Quaternary Older Alluvium, and Quaternary Alluvium. The literature survey and record searches at the Natural History Museum of Los Angeles County and the Museum of Paleontology, University of California, Berkeley, indicate that no fossils have been reported from any of the deposits located within the campus boundaries. Further, no paleontological resources have ever been found on campus. However, the same rock units have, in nearby contexts, yielded fossils of substantial number and importance, and Dr. Wagner's assessment concluded that the potential exists for the rock units underlying the campus to yield fossils.

4.4.2 Regulatory Framework

The treatment of cultural resources is governed by federal, State, and local laws and guidelines. There are specific criteria for determining whether prehistoric and historic sites or objects are significant and/or protected by law. Federal and State significance criteria generally focus on the resource's integrity and uniqueness, its relationship to similar resources, and its potential to contribute important information to scholarly research. Some resources that do not meet federal significance criteria may be considered significant by State criteria. The laws and regulation seek to mitigate impacts on significant prehistoric or historic resources. The federal, State, and local laws and guidelines for protecting historic resources are summarized below.

Federal

The National Historic Preservation Act of 1966

The National Historic Preservation Act of 1966 established the NRHP as the official federal list of cultural resources that have been nominated by State Offices for their historical significance at the local, State, or national level. Properties listed in the NRHP, or "determined eligible" for listing, must meet certain criteria for historical significance and possess integrity of form, location, and setting. Significance is determined by four aspects of American history or prehistory recognized by the NRHP Criteria, which are listed on page 4.4-2 of this document under "Definitions of Historical Resources." Eligible properties must meet at least one of the criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of changes to the property.

State

The California Register of Historic Resources (P.R.C. Section 5020 *et seq.*)

State law also protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources in CEQA documents. A cultural resource is an important historical resource if it meets any of the criteria found in Section 15064.5(a) of the CEQA Guidelines. These criteria are nearly identical to those for the NRHP, which are listed on page 4.4-2 of this document under "Definitions of Historical Resources."

The State Historic Preservation Office (SHPO) maintains the CRHR. Properties listed, or formally designated eligible for listing, on the NRHP are automatically listed on the CRHR, as are State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Senate Bill 297 (1982)

This bill addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission to resolve disputes regarding the disposition of such remains. It has been incorporated into Section 15064.5(e) of the State CEQA Guidelines.

4.4.3 Project Impacts and Mitigation

Analytic Method

Historical Resources

Significant effects upon historic structures or features are evaluated by determining the presence or absence of historic status with respect to the feature in question, and then determining the potential for development to affect the structure or feature if it possesses historic status. While implementation of the 2002 LRDP is not anticipated to require the demolition of historic structures, new construction or modification could affect a historic resource or its setting (when the setting contributes to historic significance) by introducing incompatible elements.

Archaeological Resources (Including Human Remains)

While only a small portion of the campus has been subjected to systematic archaeological survey, extensive excavation associated with campus development has occurred and continues to occur. This analysis is based on the probability, based on previous studies and excavations, that an archaeological resource or human burial would not be affected by activities that disturb the ground surface or subsurface, including grading or excavation.

Paleontological Resources

Surface examination often cannot reveal whether paleontological resources are present at a specific project location. However, as described above, extensive excavation associated with campus development has occurred and continues to occur. This analysis is based on the probability, based on previous studies of rock units that underlie the campus and rock units similar to those under the campus, that paleontological resources could be affected by activities that disturb the ground surface or subsurface, including grading or excavation. For the purposes of this EIR, impacts on paleontological resources are assessed in terms of significance based upon whether these resources meet the definition of a "unique archaeological resource" found in Section 21083.2(g) of CEQA.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on cultural resources if it would result in any of the following:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- Disturb any human remains, including those interred outside of formal cemeteries

Effects Not Found to Be Significant

The Initial Study did not identify any Effects Not Found to Be Significant; therefore, all potential cultural resource impacts are discussed in this EIR.

Impacts and Mitigation

Threshold	Would the project cause a substantial adverse change in the significance of a historical resource as defined in the 2002 CEQA Guidelines, Section 15064.5?

Impact LRDP 4.4-1 **Implementation of the 2002 LRDP would not result in a substantial adverse change in the significance of structures that have been designated as eligible or potentially eligible for listing on the NRHP or CRHR. This is considered a *less-than-significant* impact.**

As described above in Section 4.4.1, several structures on campus are eligible or potentially eligible for listing on the NRHP and/or CRHR and, therefore, meet the definition of historical resources under Section 15064.5(a) of the CEQA Guidelines. Section 15064.5(b) states that substantially adverse changes to the significance of an historical resource are significant impacts on the environment. Implementation of the 2002 LRDP could include seismic or life safety systems retrofits or upgrades to, or reconfiguration of, historic structures. However, as described above, the University has, as a matter of policy, implemented all such projects in consultation with SHPO and in compliance with the *Secretary of the Interior's Standards for Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Weeks and Grimmer 1995), and according to Section 15064.5(b)(3) of the CEQA Guidelines, a project that follows these standards and guidelines shall generally be considered to have mitigated to a less-than-significant level the impact on a historic structure. The campus would continue this policy during the implementation period of the 2002 LRDP, and modifications to historic structures would, therefore, be designed in a manner that is sensitive to the character of a historic resource and the qualities of the structure that convey historic significance, as required by PP 4.4-1(a). Significant effort and care has been taken in the seismic and life safety renovation of all of the original campus buildings over the past decade (Kinsey Hall is the last of the original structures remaining to undergo seismic renovation, which is anticipated to occur in 2004). Furthermore, in several instances (for example the south façade of Powell Library and the main lecture hall in Moore Hall), the rehabilitation work has restored elements of these original buildings that had been compromised in prior renovation projects undertaken in the 1960s and 1970s. Based on the demonstrated campus practice of rehabilitating and restoring historic resources, no substantial adverse change to the historic campus buildings would occur.

In addition to the form of a historic structure, setting is one of the qualities that conveys the historic significance of a structure (e.g., the original, bi-axial design of the historic campus core by Kelham and the spatial relationships of the buildings). Construction of a building of inappropriate scale or architectural style or construction of a building that is too close to a historic structure could represent a substantial compromise of the setting of the historic structure, which would represent a significant impact. However, the campus has maintained the integrity of the setting of the historic core by avoiding development within Dickson Plaza and the other connecting open spaces, preserving the landscape elements of the core (such as pathways and planting areas), and maintaining the integrity of the historic structures within the zone. Also, although new development is proposed in the Core Campus zone (within which the historic core is located), the LRDP carries forward an important planning objective to ensure that the integrity of the historic core of the campus is maintained. Continuation of this practice, as required by PP 4.4-1(b), would further ensure that the integrity of the setting of the historic campus core is maintained, and a less-than-significant impact would occur.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.4-1(a)	*The campus shall continue to implement all modifications to historic structures in compliance with the Secretary of the Interior's Standards for Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Weeks and Grimmer 1995).*
PP 4.4-1(b)	*The integrity of the campus historic core shall be maintained* (This is identical to Aesthetics PP 4.1-1(d) and Land Use PP 4.8-1(g).)

As provided by Section 15064.5(b)(3) of the CEQA Guidelines, following PP 4.4-1(a) and PP 4.4-1(b) would ensure that potential impacts to historic structures would remain less than significant by the continuation of the established campus practice of adherence to the Secretary of the Interior's standards and guidelines and ensuring that no incompatible development occurs within the historic campus zone. No mitigation is required.

Impact LRDP 4.4-2 **Implementation of the 2002 LRDP would not result in the demolition of historic or potentially historic structures. This is considered a *less-than-significant* impact.**

The campus has, in the course of planning, preserved, protected, and restored its historic structures, particularly those located in the historic core of the Core Campus, and no projects are foreseen that would result in the demolition of historic structures during implementation of the 2002 LRDP. Structures that have not reached 50 years of age at the time of circulation of the NOP for this project and could not yet typically be considered historic, but which may attain historic status during implementation of the 2002 LRDP, would also be protected. As described in Impact LRDP 4.4-1, the campus would continue its policy of preserving historic structures; the physical planning objectives articulated in the 2002 LRDP include respecting and reinforcing the architectural and landscape traditions of the campus and maintaining the integrity of the campus historic core, the latter of which is also articulated as PP 4.4-1(b). No demolition of historic structures is planned or foreseeable. Therefore, a less-than-significant impact associated with the demolition of historic structures would occur.

Although demolition of historic or potentially historic structures on campus is not planned, all appropriate CEQA analysis will be undertaken should demolition of such structures be proposed during the 2002 LRDP. No mitigation is required.

Threshold	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to the 2002 CEQA Guidelines, Section 15064.5?

Impact LRDP 4.4-3 **The 2002 LRDP construction would not cause a substantial adverse change in the significance of an archaeological resource. This is considered a *less-than-significant* impact.**

As described in the environmental setting, no archaeological materials have been recovered or recorded on the campus to date. Also, as further described in Impact LRDP 4.5-2 in Section 4.5 (Geology and Soils) and Impact LRDP 4.7-1 in Section 4.7 (Hydrology and Water Quality), development under the 2002 LRDP would convert 100,500 square feet (less than 1 percent) of the campus from pervious to impervious surfaces; the majority of development under the 2002 LRDP would, therefore, occur on previously developed sites that have already been subject to disturbance for existing structures or infrastructure. Therefore, although the potential remains for excavation activities (for foundations, utility improvements, etc.) associated with implementation of the 2002 LRDP to damage archaeological resources, the likelihood of encountering archaeological resources on the campus is considered extremely low, and this impact would be considered less than significant. However, MM 4.4-3(a) requires an instructional program to assist construction personnel in identifying archaeological resources, and MM 4.4-3(b) requires additional provisional measures in the event that archaeological resources are identified, which would further reduce this less-than-significant impact.

The following mitigation measures shall be implemented:

MM 4.4-3(a) *Prior to site preparation or grading activities, construction personnel shall be informed of the potential for encountering unique archaeological resources and taught how to identify these resources if encountered. This shall include the provision of written materials to familiarize personnel with the range of resources that might be expected, the type of activities that may result in impacts, and the legal framework of cultural resources protection. All construction personnel shall be instructed to stop work in the vicinity of a potential discovery until a qualified, non-University archaeologist assesses the significance of the find and implements appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of archaeological resources is prohibited.*

MM 4.4-3(b) *A qualified archaeologist shall first determine whether an archaeological resource uncovered during construction is a "unique archaeological resource" under Public Resources Code Section 21083.2(g). If the archaeological resource is determined to be a "unique archaeological resource," the archaeologist shall formulate a mitigation plan in consultation with the campus that satisfies the requirements of Section 21083.2.*

If the archaeologist determines that the archaeological resource is not a unique archaeological resource, the archaeologist may record the site and submit the recordation form to the California Historic Resources Information System South Central Coastal Information Center.

The archaeologist shall prepare a report of the results of any study prepared as part of a mitigation plan, following accepted professional practice. Copies of the report shall be submitted to the University and to the California Historic Resources Information System South Central Coastal Information Center.

Implementation of MM 4.4-3(a) and MM 4.4-3(b) would further reduce less-than-significant impacts on archaeological resources by requiring an instructional program to assist construction personnel in identifying archaeological resources and requiring the scientific recovery and evaluation of any archaeological resources that could be encountered, which would ensure that important scientific information that could be provided by these resources regarding history or prehistory is not lost.

Threshold	Would the project directly or indirectly destroy a unique paleontological resources or site or unique geologic feature?

Impact LRDP 4.4-4 **The 2002 LRDP construction could directly or indirectly result in damage to, or the destruction of, unique paleontological resources on site or unique geologic features. This is considered a *potentially significant* impact.**

No unique geological feature is known to exist on the campus; the topography of the campus has been substantially altered by development and the accompanying grading and fill placement, and as described above in the environmental setting, no fossils have been documented on the campus. However, as described above in Section 4.4.1 (Environmental Setting), nearby area rock units identical to those that underlie the campus have yielded significant paleontological specimens that contributed to scientific understanding of the distant past. Therefore, fossils from these units could be considered unique resources due to the potential to yield information important in history or prehistory (Criteria 4 of the NRHP and D of the CRHR). Accordingly, the rock units underlying the campus are considered potentially paleontologically sensitive. Further, as described above in Section 4.4.1 (Environmental Setting), the paleontological resources assessment prepared for the 2002 LRDP EIR concluded that the potential exists for the rock units underlying the campus to yield fossils. Therefore, any construction-related, earth-disturbing activities resulting from implementation of the 2002 LRDP could damage or destroy fossils in these rock units. However, MM 4.4-4(a) requires an educational program to assist construction personnel in identifying paleontological resources, and MM 4.4-4(b) requires additional provisional measures if paleontological resources are identified.

The following mitigation measures shall be implemented:

MM 4.4-4(a) *Prior to site preparation or grading activities, construction personnel shall be informed of the potential for encountering paleontological resources and taught how to identify these resources if encountered. This shall include the provision of written materials to familiarize personnel with the range of resources that might be expected, the type of activities that may result in impacts, and the legal framework of cultural resources protection. All construction personnel shall be* *instructed to stop work in the vicinity of a potential discovery until a qualified, non-University paleontologist assesses the significance of the find and implements appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of paleontological resources is prohibited.*

MM 4.4-4(b)

A qualified paleontologist shall first determine whether a paleontological resource uncovered during construction meets the definition of a "unique archaeological resource" under Public Resources Code Section 21083.2(g). If the paleontological resource is determined to be a "unique archaeological resource," the paleontologist shall formulate a mitigation plan in consultation with the campus that satisfies the requirements of Section 21083.2.

If the paleontologist determines that the paleontological resource is not a unique resource, the paleontologist may record the site and submit the recordation form to the Natural History Museum of Los Angeles County.

The paleontologist shall prepare a report of the results of any study prepared as part of a mitigation plan, following accepted professional practice. Copies of the report shall be submitted to the University and to the Natural History Museum of Los Angeles County.

Implementation of MM 4.4-4(a) and MM 4.4-4(b) would reduce potentially significant impacts on paleontological resources to a less-than-significant level by requiring an instructional program to assist construction personnel in identifying paleontological resources and requiring the scientific recovery and evaluation of any paleontological resources or unique geologic features that could be encountered, which would ensure that important scientific information that could be provided by these resources regarding history or prehistory is not lost.

Threshold	Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact LRDP 4.4-5 **The 2002 LRDP construction would not result in the disturbance of human remains, including those interred outside of formal cemeteries. This is considered a *less-than-significant* impact.**

No formal cemeteries are known to have occupied the UCLA campus, so any human remains encountered would likely come from archaeological or historical archaeological contexts. As described above in 4.4.1 (Environmental Setting), no archaeological materials, including human burials, have been discovered on the campus. Although the potential still exists for such resources to be present and for excavation during construction activities to disturb these resources, the likelihood of discovery of such resources is extremely low, and this impact is, therefore, considered to be less than significant.

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Section 5097 of the California Public Resources Code. Disturbing human remains could violate the health code, as well as destroy the resource. To further reduce the less-than-significant impacts, and as required by law, PP 4.4-5 reflects provisional measures if human remains are discovered on campus.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.4-5

In the event of the discovery of a burial, human bone, or suspected human bone, all excavation or grading in the vicinity of the find shall halt immediately, the area of the find shall be protected, and the University immediately shall notify the Los Angeles County Coroner of the find and comply with the provisions of P.R.C. Section 5097 with respect to Native American involvement, burial treatment, and re-burial, if necessary.

Following PP 4.4-5 would ensure that this impact remains less than significant by ensuring appropriate examination, treatment, and protection of human remains. No mitigation is required.

4.4.4 Cumulative Impacts

The geographic context for the analysis of cumulative cultural resources impacts is the City of Los Angeles, which includes all cumulative growth within the City, as represented by full implementation of the City of Los Angeles General Plan Framework and development of the related projects provided by Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Analysis).

It is possible that cumulative development in the City of Los Angeles could result in the adverse modification or destruction of historic buildings, which could contribute to the erosion of the historic and architectural fabric of the City. However, it is anticipated that future development in the City of Los Angeles that could potentially affect historic resources or structures will be subject to the requirements of CEQA and City of Los Angeles historic resource protection ordinances. It is further anticipated that the effects of cumulative development on historic resources will be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. As a result, cumulative impacts on historic resources as a result of future development throughout the City of Los Angeles are expected to be less than significant. As indicated above, modification of historic structures on campus would continue to comply with the Secretary of the Interior's standards and guidelines and would occur under consultation with SHPO, as required by campus PP 4.4-1(a), which would retain the historic qualities of the structures. Further, no historic structures would foreseeably be demolished as a result of implementation of the 2002 LRDP and although some structures have, as described above, been determined eligible for the CRHR and NRHP, none of the structures on campus have been designated as City of Los Angeles Historic Landmarks. Therefore, the potential impacts of development under the 2002 LRDP, when considered in conjunction with the cumulative projects in the City of Los Angeles, would not be cumulatively considerable with respect to potential impacts to historic structures. It is noted that the City of Los Angeles General Plan Framework regards the "loss of known and unknown historic structures and/or sites" to be cumulatively significant. However, for the reasons discussed above, the contribution of the 2002 LRDP to this impact would not be cumulatively considerable and is thus less than significant. This is considered to be a *less-than-significant* impact.

Development in the Los Angeles area would also require grading and excavation that could potentially affect archaeological or paleontological resources or human remains. The cumulative effect of these projects would contribute to the continued loss of subsurface cultural resources, if these resources are not protected upon discovery. CEQA requirements for protecting archaeological and paleontological resources and human remains are applicable to development in the City of Los Angeles, as are local cultural resource protection ordinances. If subsurface cultural resources are protected upon discovery as required by law, impacts to those resources would be less than significant. As indicated above, given the extremely low likelihood of encountering paleontological or archaeological deposits or human remains on the campus, and the Mitigation Measures that will be imposed and enforced throughout construction, the contribution of potential impacts from campus development to the cumulative destruction of subsurface cultural resources throughout Los Angeles would be less than significant. It is noted that the City of Los Angeles General Plan Framework concludes that "[L]oss and/or disturbance of known or unknown archaeological sites" throughout the City of Los Angeles is considered to be cumulatively significant. However, for the reasons discussed above, the contribution of the 2002 LRDP to this impact are not cumulatively considerable and are thus less than significant. This is considered to be a *less-than-significant* impact.

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4.5 GEOLOGY AND SOILS

This section of the EIR describes the existing geology, soils, and seismic conditions on campus and analyzes the potential physical environmental effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, and excavation and export of soils. Potential effects on air and water quality as a result of construction-related activities are discussed in Section 4.2 (Air Quality) and Section 4.7 (Hydrology and Water Quality), respectively.

Data used in preparation of this section was obtained from various sources, including the General Soil Map of Los Angeles County (Soil Conservation Service 1969), previous environmental documentation and geotechnical reports prepared for the UCLA campus, and other campus data sources. This section also incorporates information gained from personal communication with staff of the California Department of Conservation, Division of Mines and Geology (CDMG); the City of Los Angeles Department of Water and Power (LADWP); and Geotechnologies, Inc. (Moore 2002). Full bibliographic entries for all reference material are provided in Section 4.5.5 (References) of this section.

No comment letters related to geology, soils, or seismicity were received in response to the Notice of Preparation circulated for the project.

4.5.1 Environmental Setting

Regional Geology

The macro-geology of southern California is composed of several large plates moving relative to each other. The primary line of contact between these plates is the San Andreas Fault zone, which lies about 41 miles northeast of the UCLA campus.

The geologic formations in the Los Angeles Basin belong to two geomorphic provinces: the Transverse Ranges and the Peninsular Ranges. The Peninsular Ranges comprise the coastal mountains that run from Los Angeles to Baja California. The Santa Monica Mountains, to the north of the campus, form the central portion of the Transverse Ranges, running about 275 miles eastward from Point Arguello (just north of Santa Barbara) into the Mojave Desert. Consisting of several large areas of uplifted basement rocks, these mountainous blocks are seismically active and are transected by a north-west-trending branch of the Santa Monica Fault and numerous small faults.

Local Geology

Situated at the boundary between the Northwestern Block of the Los Angeles Basin (generally, the San Fernando Valley area) and the Southwestern Block (the portion of the basin south of the Santa Monica Mountains), the campus lies near the buried Hollywood Fault and northwest of the Newport-Inglewood Fault. This is a geologically complex location, and the UCLA campus is underlain by a variety of rock types.

The rocks of both the Southwest and Northwest Blocks consist chiefly of marine clastic[7] and organic sedimentary strata of middle Miocene to Recent age, including igneous rocks of middle Miocene age. In the vicinity of the campus, the lower sequence consists of marine sandstone, siltstone, and minor amounts of conglomerate and locally containing marine mollusks and foraminifera.[8] These formations, as much as 1,000 feet thick in the area of the campus, evidently were derived from sources east of the Newport-Inglewood Fault and deposited in a shallow marine environment.

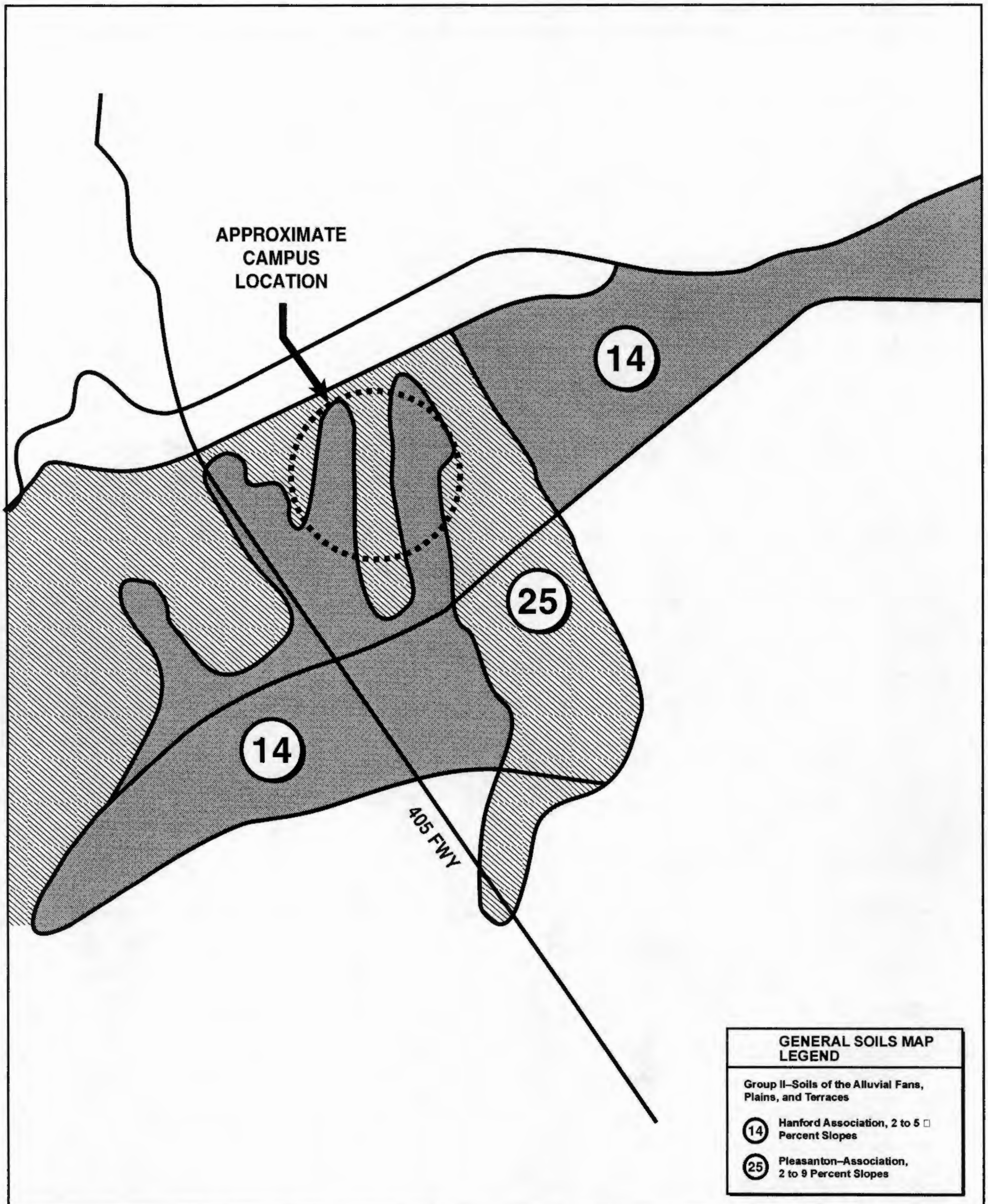
Campus Soil Types and Characteristics

UCLA lies on the gently rolling terrain of older alluvial deposits, which were originally deposited as alluvial fan material resulting from erosion of the southern slopes of the Santa Monica Mountains by sediment-loaded streams. The elevated alluvial terrace surfaces in the vicinity of the campus have been incised as a result of flows from the higher elevations of the Santa Monica Mountains in a southerly direction into the Los Angeles Basin.

Extensive grading and fill for campus development and landscaping over the last 74 years has resulted in extensive alteration to surface and near-surface natural geologic features. Except for the area under the Arroyo Bridge, the large arroyo of Stone Canyon has been completely filled through the east-central portion of the Core Campus. Earth used to fill this area was taken from hilltops adjoining both sides of the arroyo. In fact, man-made fill covers much of the campus to varying depths. Because borrow sites were often near the areas filled, it is sometimes difficult to distinguish between fill and natural soils.

Figure 4.5-1 (General Soils Map) shows the soil patterns as they were presumed to exist before urbanization occurred. For a description of the different soil units that underlie the UCLA campus, please refer to Appendix 6.

[7] Clastic refers to a rock or sediment composed primarily of broken fragments derived from pre-existing rocks or minerals that have been transported some distance from their place of origin.
[8] Foraminifera are protozoa that are typically found as fossils in marine limestone.



Not to Scale

SOURCE: U.S. Department of Agriculture, Soils Conservation Service, 1969   10328-07

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FIGURE 4.5-1
General Soils Map

UCLA 2002 LRDP

Faulting

Based on criteria established by the CDMG, faults may be categorized as active, potentially active, or inactive. Active faults are those that show evidence of displacement within the last 11,000 years. Potentially active faults are those that show evidence of displacement during the last 1.6 million years. Faults showing no evidence of displacement within the last 1.6 million years are considered inactive for most purposes.

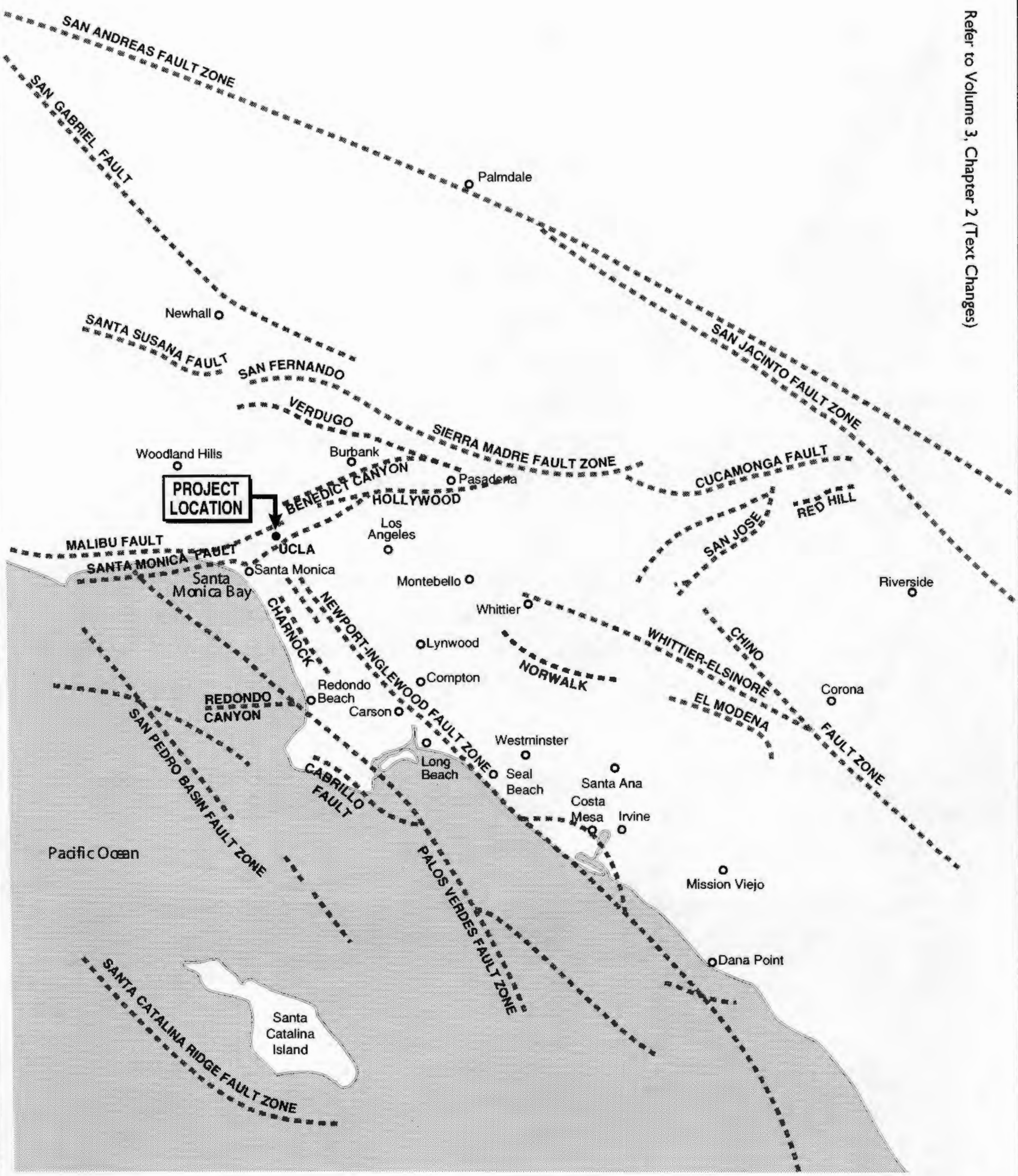
Geologic studies have found that the Los Angeles Basin is a geologically complex area with over one hundred active faults. Studies completed since the Northridge Earthquake of 1994 indicate that the six major fault systems in the Los Angeles area are capable of generating large earthquakes, and many of the faults traversing the southern California area have the potential of generating strong ground motions in the Los Angeles Basin.

Regionally, the UCLA campus lies within a seismically active area bounded by two important faults in the Santa Monica Fault zone, which contains tbe active Malibu Coast/Santa Monica/Raymond/ Sierra Madre/Cucamonga Fault zone and the active Newport-Inglewood Fault. The closest known active fault to the campus is the Hollywood Fault. However, there are no known active or potentially active faults underlying the campus (see Supplementary Geology Information, Appendix 6), nor is the campus located in an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1994. Figure 4.5-2 (Regional Fault Map) shows the approximate location of the campus in relation to these major fault systems. For a detailed description of the faults located in close proximity to the UCLA campus, please see Appendix 6.

Historic and Future Seismicity

As with all of southern California, the UCLA campus has experienced seismic activity from various regional faults. The historic seismic record indicates that sixty-three earthquakes of magnitude 5.0 and greater have occurred within 60 miles of the campus between the years 1800 and 2001, according to the CDMG web site (2001). The seismic potential of an active or potentially active fault is generally evaluated by estimating the magnitude of an earthquake that may be expected to occur along tbe fault. A commonly used measure of a fault's ability to result in displacement is the Maximum Credible Earthquake (MCE), which is defined as the largest earthquake (measured in magnitude [M] on the Richter Scale) that appears to be reasonably capable of occurring under the presently known geologic framework. Magnitude, or Richter magnitude, characterizes the relative size of an earthquake based on a

Refer to Volume 3, Chapter 2 (Text Changes)



0 5 10 20 Scale In Miles

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SOURCE: CDMG OFR 92-03 (1992), USGS MFI-512 (1965)

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FIGURE **4.5-2**

Regional Fault Map

measurement of the maximum motion recorded by a seismograph. The MCE resulting in the highest peak horizontal acceleration in the project area would be a magnitude 7.5 event on the Santa Monica–Hollywood Fault.

The strongest, most recent event near the campus was the January 1994 Northridge earthquake (Richter magnitude 6.7). The epicenter of this event was approximately 12 miles north of the campus. The October 1987 Whittier Narrows earthquake (Richter magnitude 5.9) occurred approximately 21 miles east of the campus on a buried thrust fault located beneath the Elysian Park–Montebello Hills area of Los Angeles County. As with the Northridge earthquake, no surface fault ruptures were observed.

Recent revisions incorporated by the State into the California Building Code (CBC), based on recommendations identified by the Seismology Committee of the Structural Engineers Association of California, have eliminated the use of MCE. The 1997 code revisions require that the moment magnitude (Mw) of the "characteristic earthquake" be used in geotechnical calculations for design purposes. The new criteria for describing the energy release (i.e., the "size" of the earthquake along a particular fault segment) were determined by the Seismology Committee to represent a more reliable descriptor of future fault activity than the MCE. While the moment magnitude value may differ slightly from the MCE, the new method for describing future fault activity does not alter the assumptions or conclusion of this EIR, because the development under the 2002 LRDP would be required by State law and regulation to comply with adopted geotechnical design criteria at the time each structure is designed and constructed.

Estimated maximum earthquake magnitudes resulting from potential seismic activity on various active faults are shown below in Table 4.5-1 (Estimated Maximum Earthquake Magnitudes [Mw] for Major Faults within 20 Miles of the Campus).

Table 4.5-1 Estimated Maximum Earthquake Magnitudes (Mw) for Major Faults within 20 Miles of the Campus

Fault	Magnitude
Santa Monica	6.6
Hollywood	6.4
Malibu Coast	6.7
Newport-Inglewood (Los Angeles Basin)	6.9
Northridge (East Oak Ridge)	6.9
Palos Verdes	7.1
Compton Thrust	6.8
Verdugo	6.7

Table 4.5-1 Estimated Maximum Earthquake Magnitudes (Mw) for Major Faults within 20 Miles of the Campus

Fault	Magnitude
Elysian Park Thrust	6.7
Raymond	6.5
Anacapa-Dume	7.3
Sierra Madre (San Fernando)	6.7
Sierra Madre	7.0
Santa Susana	6.6
San Gabriel	7.0

Source: Geotechnologies 2002, Table 1

Campus Seismic Upgrade Programs

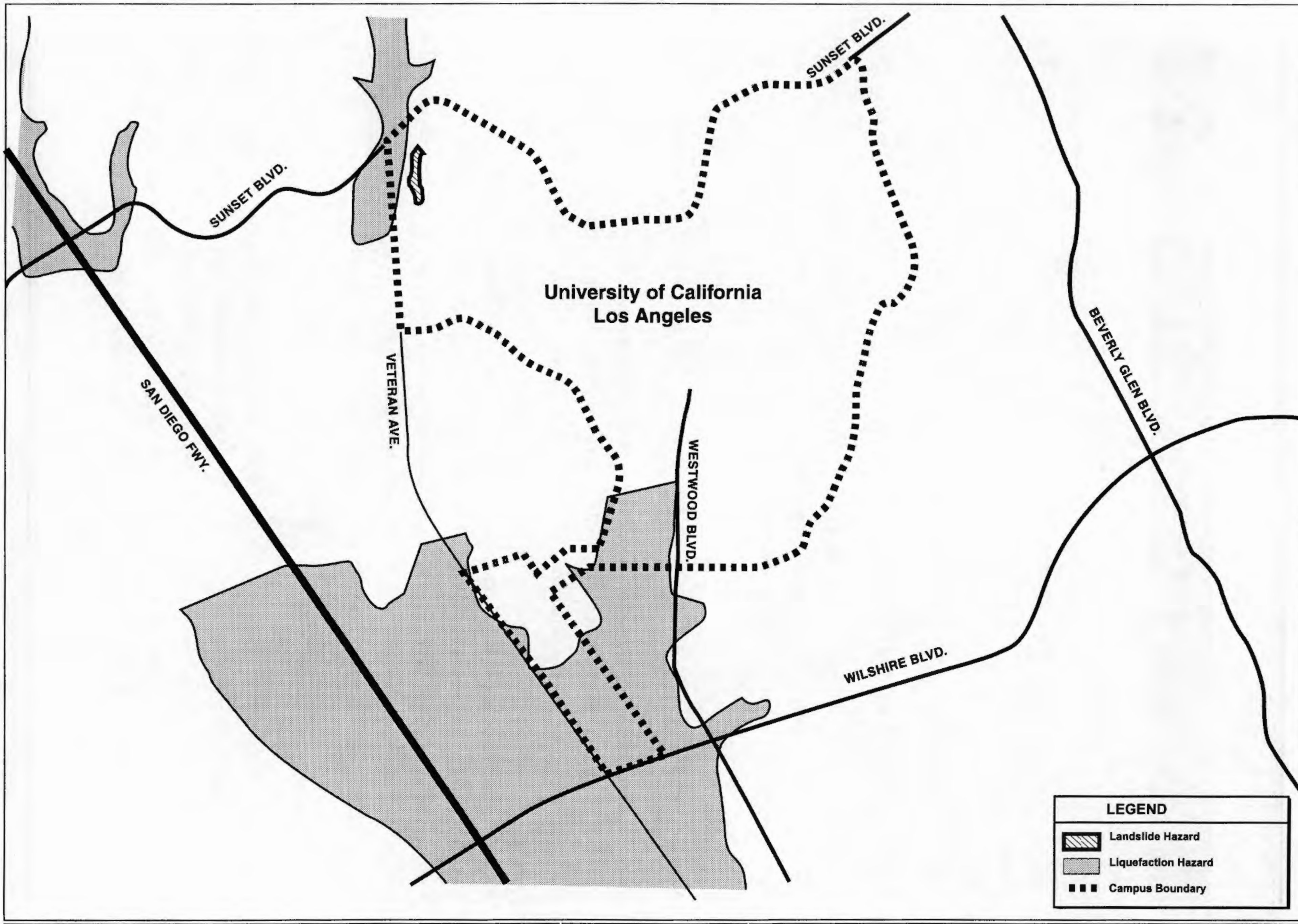
A seismic structural construction program has been underway since the mid-1980s and was accelerated when the 1994 Northridge earthquake caused significant damage to a number of campus structures. Many existing structures on campus have been upgraded to meet current seismic and life safety standards.

Seismic Hazards

Primary hazards associated with seismicity include groundshaking and surface rupture. As stated above, no faults have been identified that would result in surface rupture on campus. However, in addition to possible strong ground motion on campus, other secondary effects of a strong nearby earthquake include liquefaction, landsliding, flooding due to seismic-related dam failure, and seismically induced settlement. Areas on or near campus that have been designated by the CDMG as subject to liquefaction or landsliding hazards are shown in Figure 4.5-3 (Potential Seismic Hazard Zones). It should be noted that the maps showing Potential Seismic Hazard Zones are prepared for large land areas and do not provide a level of accuracy sufficient to determine a definite seismic hazard at a specific site. Therefore, geotechnical studies are typically undertaken to obtain site-specific seismic hazard information.

Liquefaction

Liquefaction involves a sudden loss in strength of a saturated, cohesionless soil, which is typically caused by groundshaking activities associated with shock or strain and results in temporary transformation of the soil to a fluid mass. In extremely rare instances, groundborne vibrations could also cause liquefaction from activities such as pile driving or tunnel boring. If the liquefying layer is near the surface, the effects may resemble those of quicksand; if the layer is below the ground surface, it may provide a sliding



Not to Scale

SOURCE: California Department of Conservation, Division of Mines and Geology

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FIGURE **4.5-3**
Potential Seismic Hazard Zones

UCLA 2002 LRDP

surface for the material above it and/or cause differential settlement of the ground surface, which may damage building foundations by altering weight-bearing characteristics.

Liquefaction typically occurs in areas where the groundwater is less than 50 feet from the surface and where the soils are composed of poorly consolidated, fine- to medium-grained, younger alluvial sands. In addition to the necessary soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to initiate liquefaction. Due to the generally very dense to hard nature of the older alluvial soils underlying the campus, the potential for liquefaction occurring beneath the majority of the campus is considered to be remote to nonexistent. However, according to CDMG maps, a small area in the extreme northwestern portion of the campus has been designated as a liquefaction hazards zone. Additionally, the areas underlying the Medical Plaza and a portion of the Southwest zone of the campus have also been designated by the CDMG as liquefaction hazard areas, as illustrated in Figure 4.5-3.

Landsliding

Landslides occurring in both rock and soil have been classified on the basis of distinctions in movement, internal disruption, and geologic environments. Of these, the most common are rock falls, disrupted soil slides, and rock slides. The next most common are lateral soil spreads, soil slumps, soil block slides, and soil avalanches. Soil falls, rapid soil flows, and rock slumps are considered "moderately common." According to the CDMG, a small area in the northwest portion of the campus is zoned for landsliding in the event of serious seismic activity. This area is shown in Figure 4.5-3.

Earthquake Induced Flooding

Earthquake-induced flooding is flooding caused by failure of dams or other water-retaining structures due to earthquakes. The Stone Canyon Reservoir is located north of the campus and is operated by the LADWP. The UCLA campus is located in the hypothetical inundation path of a catastrophic failure of the reservoir, and significant seismic activity could potentially result in the failure of this earth dam, which would compound any adverse condition or damage already experienced by the campus as a result of the seismic event.

The Stone Canyon Reservoir was constructed to withstand the maximum credible seismic event and is subject to routine and periodic inspection and upgrades by State authorities and the LADWP. The LADWP Reservoir Surveillance Section is responsible for inspecting and certifying the safety of City-owned dams on a regular basis. Current monthly inspections have concluded that the Upper and Lower Stone Canyon dam structures are in good condition. Although the potential inundation of the campus from a catastrophic failure of the Stone Canyon Reservoir is considered remote, the impact is discussed in Impact LRDP 4.7-10 in Section 4.7 (Hydrology).

Seismically Induced Settlement

Due to generally very dense to hard nature of the soils underlying the site, the possibility of seismically induced settlement affecting the site is considered remote to nonexistent (Geotechnologies 2002).

4.5.2 Regulatory Framework

Federal

Uniform Building Code

The Uniform Building Code (UBC) defines different regions of the United States and ranks them according to their seismic hazard potential. There are four types of these regions, which include Seismic Zones 1 through 4, with Zone 1 having the least seismic potential and Zone 4 having the highest seismic potential. The UCLA campus is located in Seismic Zone 4; accordingly, any future development would be required to comply with all design standards applicable to Seismic Zone 4.

State

California Building Code

The State of California provides a minimum standard for building design through the California Building Code (CBC). The CBC is based on the UBC, with amendments for California conditions.

Chapter 23 of the CBC contains specific requirements for seismic safety. Chapter 29 of the CBC regulates excavation, foundations, and retaining walls. Chapter 33 of the CBC contains specific requirements pertaining to site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Chapter 70 of the CBC regulates grading activities, including drainage and erosion control. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in Cal-OSHA regulations (Title 8 of the California Code of Regulations [CCR]) and in Section A33 of the CBC.

Seismic Hazards Mapping Act

CDMG also provides guidance with regard to seismic hazards. Under CDMG's Seismic Hazards Mapping Act, seismic hazard zones are to be identified and mapped to assist local governments in land use planning. The intent of this publication is to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. In addition, CDMG's Special Publications 117, "Guidelines for Evaluating and Mitigating Seismic Hazards in California," provides guidance for the evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations.

University Policy on Seismic Safety

On January 17, 1995, the University adopted an updated "Policy on Seismic Safety." This establishes that University policy is "to acquire, build, maintain, and rehabilitate buildings and other facilities which provide an acceptable level of earthquake safety." The level of safety is also defined in the University policy. The policy articulates five primary points:

- *Program for Abatement of Seismic Hazards.* Develop a program for the identification and temporary and permanent abatement of seismic hazards in existing buildings and other facilities.
- *Consulting Structural Engineer.* Engage structural engineers to examine existing buildings and other facilities and submit reports on the adequacy of resistance to seismic forces of University facilities, based on Chapter 23 of the California Building Code and upon the engineers' professional evaluations with respect to Appendix A to the policy.
- *Standards for Seismic Rehabilitation Projects.* Correctional programs for structures that do not provide adequate safety shall provide, at a minimum, an acceptable level of earthquake safety equivalent to the current seismic provisions of Chapter 23 of the California Building Code, or local seismic requirements, whichever is more stringent, with respect to life safety and prevention of personal injury. Preliminary plans for all seismic rehabilitation shall be reviewed by the consulting structural engineer, and recommendations of the structural engineer shall be incorporated into the project plans by the design engineer.
- *Repair of Buildings and Other Facilities Damaged by Earthquakes.* This section sets standards for University buildings and facilities that are damaged by earthquakes, based on the reduction in lateral load of the structure in question.
- *New Buildings and Other Focilities.* The design of new buildings shall, at a minimum, comply with the current provisions of Chapter 23 of the California Building Code, or local seismic requirements, whichever is more stringent. Provisions shall also be made for adequate anchoring of nonstructural building elements. No new University structures may be constructed on the trace of a known active fault. All plans shall be reviewed by a consulting structural engineer who must, prior to release of funds, certify that the structure complies with the University Policy on Seismic Safety.

4.5.3 Project Impacts and Mitigation

Analytic Method

Widely available industry sources were examined to document regional and local geology. Information about soil characteristics was derived from the Soil Conservation Service's Soil Survey of Los Angeles County, and information regarding regional geology and seismically induced hazards was taken from various sources of the California Department of Mines and Geology and the Department of the Interior. Campus-specific geologic information was obtained from previous geotechnical investigations prepared for the campus, including the Northwest Campus Development (De Neve) Revised Phase II EIR (De Neve housing), the Southwest Campus Housing and Parking Project EIR, the Intramural Field Parking Structure EIR, and the Academic Health Center Facilities Reconstruction Plan EIR. Estimated maximum earthquake magnitudes resulting from potential seismic activity on various active faults in the area were obtained from Geotechnologies (2002). In addition, information related to other seismic hazards, such as landslide and liquefaction zoning, was taken from CDMG maps. Where potential geological hazards are identified for a particular campus zone, such hazards are expected to affect any potential development in that campus zone.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on geology or soils if it would do any of the following:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 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
  - Strong seismic ground shaking
  - Seismic-related ground failure, including liquefaction
  - Landslides
- Result in substantial soil erosion or the loss of topsoil
- 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

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

Effects Not Found to Be Significant

Threshold	Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The Sanitation Districts of Los Angeles County provides sewer service to the UCLA campus. Existing infrastructure is located throughout the campus, and any new development would connect to or expand the existing wastewater lines. Because no septic tanks or alternative wastewater systems are proposed, the Initial Study determined that no effects associated with soils incapable of adequately supporting these systems would occur, and no additional analysis is required in this EIR.

Impacts and Mitigation

Threshold	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving › 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? › Strong seismic ground shaking? › Seismic-related ground failure, including liquefaction? › Landslides?

Impact LRDP 4.5-1 **Implementation of the 2002 LRDP would not expose people and/or structures to potentially substantial adverse effects resulting from rupture of a known earthquake fault, strong seismic groundshaking, seismic-related ground failure (i.e., liquefaction), or landsliding. This is considered a *less-than-significant* impact.**

As described above, the campus is not located within an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1994, and no known active or potentially active faults traverse the campus. Because ground rupture generally only occurs at the location of a fault, and no active or potentially active fault are known on campus, the campus would not be subject to a substantial risk of fault (ground surface) ruptures. However, if evidence of an active or potentially active fault is discovered during preparation of a site-specific geotechnical report, as required by PP 4.5-1(a), the report shall address the potential hazard and provide design recommendations that shall be incorporated into the project.

The campus lies within a seismically active area that is bounded on the north and south by two faults of a fault zone that is expected to produce maximum credible earthquakes of magnitude 6.0 or greater. Therefore, although the campus is not located in an Alquist-Priolo zone and would not be subject to ground rupture, any development on campus could be subject to substantial seismically induced groundshaking, liquefaction, or (in limited areas of the campus) landsliding. However, development under the 2002 LRDP would be subject to all applicable provisions of Chapter 23 of the CBC and Zone 4 of the UBC, whichever is more stringent, the University Policy on Seismic Safety, and structural peer review. The campus will also continue its existing program of upgrading buildings to meet current seismic codes. Further, the campus will retain a certified Engineering Geologist or Licensed Geotechnical Engineer to prepare site-specific geotechnical studies, as required by PP 4.5-1(a), which will ensure that new development on campus provides an acceptable level of protection against seismic-related hazards according to current geotechnical engineering and University standards, and that older structures that do not meet current seismic safety standards are modified to provide an adequate level of safety. This impact would, therefore, be considered less than significant.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.5-1(a)

During project-specific building design, a site-specific geotechnical study shall be conducted under the direct supervision of a California Registered Engineering Geologist or licensed geotechnical engineer to assess detailed seismic, geological, soil, and groundwater conditions at each construction site and develop recommendations to prevent or abate any identified hazards. The study shall follow applicable recommendations of CDMG Special Publication 117 and shall include, but not necessarily be limited to

- *Determination of the locations of any suspected fault traces and anticipated ground acceleration at the building site*
- *Potential for displacement caused by seismically induced shaking, fault/ground surface rupture, liquefaction, differential soil settlement, expansive and compressible soils, landsliding, or other earth movements or soil constraints*
- *Evaluation of depth to groundwater*

The campus shall incorporate into project design the recommendations for the prevention and abatement of any identified hazards, including landslides and liquefaction, as well as for groundwater dewatering, as necessary, to ensure soil stability during construction and operation of the project.

PP 4.5-1(b)	*The campus shall continue to implement its current seismic upgrade program.*
PP 4.5-1(c)	*The campus shall continue to comply with the University Policy on Seismic Safety adopted on January 17, 1995 or with any subsequent revision to the policy that provides an equivalent or higher level of protection with respect to seismic hazards.*
PP 4.5-1(d)	*Development projects under the 2002 LRDP shall continue to be subject to structural peer review.*

Continued compliance with the Chapter 23 of the California Building Code (CBC) or Zone 4 of the UBC, whichever is more stringent, and the University Policy on Seismic Safety, as well as the applicable provisions of the Seismic Hazards Mapping Act and following PP 4.5-1(a) through PP 4.5-1(d) would ensure that this impact remains less than significant. Specifically, PP 4.5-1(a), PP 4.5-1(c), and PP 4.5-1(d) would ensure that any seismic-related site constraints are identified on a site-specific basis and that building design is consistent with current seismic and geotechnical engineering practice to provide adequate safety levels, as defined in the CBC and the University Policy on Seismic Safety, and subject to structural peer review. Additionally, following PP 4.5-1(b) would ensure that existing campus structures are upgraded to current engineering standards to provide adequate levels of safety according to the CBC and the University Policy on Seismic Safety, which would also ensure that this impact remains less than significant. No mitigation is required.

Threshold	Would the project result in substantial soil erosion or the loss of topsoil?

Impact LRDP 4.5-2 **The 2002 LRDP construction and operation would not result in substantial soil erosion or the loss of topsoil. This is considered a *less-than-significant* impact.**

Erosion can occur as a result of, and can be accelerated by, site preparation activities associated with development. Vegetation removal in landscaped (pervious) areas could reduce soil cohesion, as well as the buffer provided by vegetation from wind, water, and surface disturbance, which could render the exposed soils more susceptible to erosive forces. Additionally, excavation or grading for any proposed subterranean building or parking structures may also result in erosion during construction activities, irrespective of whether hardscape previously existed at the construction site, as bare soils would be exposed and could be eroded by wind or water. Earth-disturbing activities associated with construction would be temporary and erosion effects would depend largely on the areas excavated, the quantity of excavation, and the length of time soils are subject to conditions that would be affected by erosion processes. In addition, all construction activities would comply with Chapter 29 of the CBC, which regulates excavation activities and the construction of foundations and retaining walls, and Chapter 70 of the CBC, which regulates grading activities, including drainage and erosion control. As stated in Impact LRDP 4.2-2 in Section 4.2.3 (Air Quality, Project Impacts and Mitigation) the campus would continue to implement dust control measures consistent with SCAQMD Rule 403, as required by 2002 LRDP PP 4.2-2(a), which would stabilize soils and prevent erosion through the reduction of dust generation by up to 85 percent. Additionally, as stated in Impact LRDP 4.7-1 in Section 4.7.3 (Hydrology Water Quality, Project Impacts and Mitigation), the campus would continue to comply with the NPDES general permit for construction activities, pursuant to which, as part of an erosion control plan, construction site erosion and sedimentation control BMPs would be implemented and would include such measures as silt fences, watering for dust control, straw bale check dams, hydroseeding, and other measures. Further, the campus would be required to comply with all applicable provisions of NPDES Phase II, which will become effective in March 2003 and will require runoff management programs that would include BMPs to control erosion and sedimentation.

According to Capital Programs Engineers (2002), full implementation of the 2002 LRDP is anticipated to result in the conversion of approximately 100,500 square feet of permeable to impermeable surfaces, which would increase impermeable surface area on the campus by 0.85 percent and would increase runoff by about one half of one percent. The addition of such a small proportion of flows would not result in a substantial increase in operational erosion, particularly because major flow patterns on the campus (particularly slope angles) would not change and velocity of flows would, consequently, not substantially increase. Therefore, substantial erosion is unlikely to occur on an operational basis, and this impact would be considered to be less than significant. No mitigation is required.

Threshold	Would the project 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?

Impact LRDP 4.5-3 **The 2002 LRDP construction in areas underlain by soils of varying stability would not subject people and structures to hazards associated with landsliding, lateral spreading, subsidence, liquefaction, collapse, or differential settlement. This is considered a *less-than-significant* impact.**

According to the CDMG, a small area in the Northwest campus zone has been designated as a potential landslide hazard area, and areas in the Northwest and Southwest campus zones have been designated as potential liquefaction hazard areas. While CDMG maps are approximations of areas that may be subject to such hazards, the potential for these hazards must be considered to exist in areas so designated. While not all specific soil characteristics of possible development sites on the campus are known, following PP 4.5-1(a) and PP 4.5-1(c) would require a site-specific evaluation of seismic, geological, and soils characteristics to determine appropriate project design measures to address any identified constraints or hazards, including compliance with all applicable provisions of Chapter 23 of the CBC or Zone 4 of the UBC, as required by the University Policy on Seismic Safety. In addition, all new structures proposed under the 2002 LRDP would include appropriate measures, according to current geotechnical engineering standards, to withstand or eliminate soil characteristics or constraints on the project site, and each development project would be subject to structural peer review, as required by PP 4.5-1(d). Following these PPs would ensure that this impact is less than significant by ensuring that geological or soils hazards on particular construction sites are identified and that foundations and structures are designed according to current seismic and geotechnical engineering practice to provide adequate safety levels, as defined in the CBC, UBC, and the University Policy on Seismic Safety, and as subjected to structural peer review. No mitigation is required.

Threshold	Would the project 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?

Impact LRDP 4.5-4 **Implementation of the 2002 LRDP would not result in construction of facilities on expansive soils, and would not create a substantial risk to people and structures. This is considered a *less-than-significant* impact.**

As illustrated by Figure 4.5-1, the UCLA campus contains two major soil series, both of which underlie extensive residential and industrial development in the Los Angeles basin. Although specific soils characteristics, such as expansiveness, are not known for the entire campus, recent geotechnical investigations in the Northwest, Southwest, Central, Core Campus, and Health Sciences zones (Kovacs and Associates 1997, 1999, 1999; Geotechnologies 2002) determined that the soils in the areas investigated ranged from very low to moderate expansion potential. Soil expansion potential, therefore, varies across the campus and can affect structures constructed on such soils, as water uptake after rainfall could cause soils to expand and damage building foundations, which may compromise the stability of the structures that underlie the affected foundations. However, all construction on the campus would be required to comply with applicable provisions of Chapter 23 of the CBC or Zone 4 of the UBC, and would be subject to structural peer review. Compliance with applicable regulations and following PP 4.5-1(a) would ensure that impacts related to expansive soils are less than significant by identifying site-specific soils characteristics and constraints and designing structures and foundations to address such constraints. Such recommendations could include design features, such as expansion joints in structures, mounting foundations on concrete piles, or replacing existing soils on a project site with stable fill material, and would either result in a structure that could withstand soils expansion or a building pad substrate that would not be subject to expansiveness. Identification of expansive soils before construction and implementation of appropriate design measures would ensure that foundations and structures would provide an adequate level of protection according to current seismic and geotechnical engineering practice to provide adequate safety levels, as defined in the CBC, UBC, and the University Policy on Seismic Safety, and as subjected to structural peer review. Therefore, no substantial risk to people or structures with respect to expansive soils would result. This impact would, therefore, be considered less than significant, and no mitigation is required.

4.5.4 Cumulative Impacts

The geographic context for the analysis of impacts resulting from seismic groundshaking is generally site-specific, rather than cumulative in nature, because each development site has unique geologic considerations that would be subject to uniform site development and construction standards. In this way, potential cumulative impacts resulting from geological, seismic and soil conditions would be minimized on a site-by-site basis to the extent that modern construction methods and code requirements provide. Nevertheless, the City of Los Angeles General Plan Framework indicates that, even though adequate study, design and construction measures can be taken to reduce potential impacts, cumulative development under the General Plan Framework "would contribute to the cumulative increase in the number of persons exposed to these hazards (e.g., the general seismic risk that exists throughout Southern California), this is considered significant." Cumulative impacts resulting from seismic groundshaking were thus regarded in the General Plan Framework as significant. As described above, and unlike some other areas within the City of Los Angeles, the UCLA campus is not located within an Earthquake Fault Zone as defined by the Alquist-Priolo Act. All development on campus would continue to comply with PP 4.5-1(a) through PP 4.5-1(d), which requires the use of the most stringent seismic safety standards, consistent with all applicable local, State, and federal regulations, such as the UBC and CBC, and continuance of the existing campus seismic upgrade program of older structures to current seismic safety standards. The contribution of the 2002 LRDP to impacts associated with exposing people and property to groundshaking effects would, therefore, be less than significant. This is considered to be a *less-than-significant* impact.

Impacts from erosion and loss of topsoil from site development and operation can be cumulative in effect within a watershed. The Ballona Creek Watershed (of which the Stone Canyon watershed is a part) forms the geographic context of cumulative erosion impacts. This analysis accounts for all anticipated cumulative growth within this geographic area as represented by full implementation of the City of Los Angeles General Plan Framework and the related projects provided by Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Environmental Analysis). Development throughout the City of Los Angeles is subject to state and local runoff and erosion prevention requirements, including the applicable provisions of the general construction permit, BMPs, and Phases I and II of NPDES, as well as implementation of fugitive dust control measures of SCAQMD Rule 403. These measures are implemented as conditions of approval of project development and subject to continuing enforcement. As a result, it is anticipated that cumulative impacts on the Ballona Creek watershed due to runoff and erosion from cumulative development activity would be less than significant. The contribution of the 2002 LRDP is also less than significant due to the extremely limited extent of ground disturbance on campus and the implementation of measures to reduce erosion and safeguard water quality, as discussed under Impact 4.5-2 above. This is considered to be a *less-than-significant* impact.

As with seismic groundshaking impacts, the geographic context for analysis of impacts on development from unstable soil (including landslides), liquefaction, subsidence, or expansive soil is generally site specific. Because all development in the City of Los Angeles is required to undergo analysis of geological and soil conditions applicable to the development site in question, and because restrictions on development would be applied in the event that geological or soil conditions pose a risk to safety, it is anticipated that cumulative impacts from development on soil subject to soil instability, liquefaction, subsidence and expansive soil would be less than significant. As discussed under Impacts 4.5-3 and 4.5-4, site-specific evaluation of geological conditions and soil characteristics would precede any development under the 2002 LRDP, and appropriate design measures would be implemented to address any of the identified constraints or hazards. As a result, the contribution of the 2002 LRDP to impacts associated with situating development on soil subject to instability, liquefaction and subsidence would be less than significant. This is considered to be a *less-than-significant* impact.

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4.6 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential adverse impacts on human health and the environment due to exposure to hazardous materials that could be encountered as a result of implementation of the 2002 LRDP. Hazardous materials include, but are not necessarily limited to, inorganic and organic chemicals, chemical reagents and reaction products, solvents, mercury, lead, asbestos, radioisotopes, fuels, oils, paints, cleansers, pesticides, and biohazardous substances that are used in activities such as laboratory research, medical treatment, building and grounds maintenance, vehicle maintenance, and fine arts. Hazardous materials use on campus generates hazardous by-products that must eventually be handled and disposed of as hazardous wastes.

Potential effects include those associated with contaminated sites and the potential exposure to hazardous materials used, stored, transported, or disposed of during construction activities (such as exposure to asbestos or lead as a result of building demolition) or campus operations. Potential water quality effects from construction-related surface water runoff that could contain hazardous materials and/or from groundwater dewatering during construction or operation are discussed in Impact LRDP 4.7-1 and Impact LRDP 4.7-2 in Section 4.7 (Hydrology and Water Quality). Impacts related to toxic air contaminants that could be emitted during campus operations are discussed in Impact LRDP 4.2-7 and Impact LRDP 4.2-8 in Section 4.2 (Air Quality).

Data used to prepare this section was taken from various sources, including the UCLA Office of Environment, Health, and Safety (EH&S), the State Department of Toxic Substances Control (DTSC), the County of Los Angeles Sanitation Districts, a report of hazardous materials sites within a half-mile of the campus prepared by Environmental Data Resources (February 2002), previous environmental documentation prepared for the UCLA campus, and other campus data sources. Full bibliographic entries for all reference materials are provided in Section 4.6.5 (References) of this section.

The University received no comment letters related to hazards or hazardous materials in response to the Notice of Preparation circulated for the project.

4.6.1 Environmental Setting

Definitions

This EIR uses the definition given in Sections 25501(n) and (o) of the California Health and Safety Code, which defines a hazardous material as:

> Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous Materials" include, but are not limited to, hazardous substances, hazardous wastes, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or environment.

A "hazardous waste," for the purpose of this analysis, is any hazardous material that is abandoned, discarded, or recycled, as defined by Section 25124 of the California Health and Safety Code. In addition, hazardous wastes occasionally may be generated by actions that change the composition of previously nonhazardous materials. The criteria that characterize a material as hazardous include ignitability, toxicity, corrosivity, reactivity, radioactivity, or bioactivity.

Hazardous Materials Used On Campus

Hazardous materials used by UCLA principally relate to medical treatment and research and teaching laboratories, and could include the following:

- Solvents used for cleaning, extraction, or other laboratory activities
- Chemical reagents (chemical starting materials)
- Chemical reaction products, which may have unknown compositions
- Radioisotopes (radioactive elements used to stimulate or trace chemical reactions)
- Infectious agents, including bacteria, viruses, and other medical wastes
- Test samples (e.g., specimens such as blood, tissue, soil, or water), prior to use in a testing procedure
- Anhydrous ammonia, classified as an acutely hazardous material by the State of California, is currently used and stored in the campus Energy Systems Facility, although this process is being converted to aqueous ammonia, a less hazardous chemical, with an anticipated completion date of early 2003.

Campus maintenance and construction activities also require the use of hazardous materials. Examples of hazardous materials involved in vehicle, grounds, and building maintenance or used on construction sites include the following:

- Fuels (gasoline and diesel)
- Oils and lubricants
- Antifreeze
- Cleaners, which may include solvents and corrosives in addition to soaps and detergents

- Paints and paint thinners (latex)
- Freons (refrigerants)
- Pesticides and herbicides

In addition, fine arts programs use relatively minor amounts of solvents, paints, and acids.

Environmental Data Resources (EDR) performed a records check in February 2002 of federal, State, and County hazardous waste lists compiled pursuant to Section 65962.5 of the Government Code, as required by Public Resources Code Section 21092.6, including, but not limited to, Leaking Underground Storage Tanks (LUST) List, the Hazardous Waste Substance List (Cortese list), the Emergency Response Notification System, and registered small or large hazardous waste generators. However, based upon a comparison of the EDR data, some of which is outdated, with current campus records, several discrepancies were identified with respect to the location and/or status of underground storage tanks (USTs), as well as hazardous materials storage sites. Appendix 9 (Supplementary Hazardous Materials Information) provides the EDR report, as well as information regarding the location and/or status of USTs and hazardous materials located on campus, based on current campus records, which updates, augments, and corrects the EDR database results.

The following sections describe hazardous materials located or potentially located on campus in broad categories: general chemicals, underground storage tanks, hazardous materials sites, infrastructure (e.g., asbestos, lead, polychlorinated biphenyls, and mercury), radioactive materials, biohazardous materials, and groundwater.

General Chemicals

Many chemical materials, some hazardous, are used for instructional and research activities, as well as facilities maintenance, during the course of daily campus operations. Virtually all of the buildings on the UCLA campus contain commercial products (e.g., cleaners, copier toners) that could be considered "hazardous materials" under regulatory definitions. Non-household-type hazardous materials used in teaching and research laboratories include chemical reagents, solvents, radioisotopes, and biohazardous substances. Facilities Management units, including grounds, custodian services, pest management, and craft shops, use a wide variety of commercial products formulated with hazardous materials. These include fuels, cleaners and degreasers, solvents, paints, lubricants, pesticides and herbicides, adhesives, and sealers. In addition, the ESF stores and utilizes ammonia in its processes.

Laboratories and maintenance shops on the UCLA campus are classified by the type of hazard and the threshold quantity for that type of material for compliance with the State of California Hazardous

Materials Release Response Plan and Inventory Law (California Health & Safety Code Sections 25500–25520), which became effective for the University of California and other public agencies on January 1, 1990. Copies of the lab classifications are maintained in the University of California Police Department Communications Center, Hazmat Response Unit, and the EH&S. Under the Hazardous Materials Release Response Plan and Inventory Law (California Health & Safety Code Sections 25500–25520), which became effective for the University of California and other public agencies on January 1, 1990, UCLA has prepared a Business Plan containing information about the location of, and emergency procedures for, campus buildings in which hazardous materials are handled. The Los Angeles City Fire Department (LAFD) administers the Business Plan requirements for UCLA and other private and public entities subject to the law. UCLA and the LAFD agreed upon the format and contents of the UCLA Business Plan in June 1989.

Underground Storage Tanks (USTs)/Hazardous Materials Sites

The potential exists for buildings or sites that would be affected by project development to have been contaminated by hazardous substances as a result of former uses of the sites, leaks from unidentified underground storage tanks, or unidentified buried debris that could contain hazardous substances or hazardous by-products. Contaminated soils, building materials, and/or groundwater pose potential hazards to construction workers, campus occupants, and nearby residents if not managed and remediated safely.

USTs in use on campus are registered and permitted by the City of Los Angeles Fire Department and are subject to Uniform Fire Code requirements that reduce or eliminate the potential for fire and explosion through secondary containment, release detection, corrosion protection, and testing. In accordance with applicable federal, State, and local regulations and standards, all USTs are double-walled and equipped with leak detection devices and anti-corrosion features. No UST-related cleanup work is currently being performed on campus. Each of the UST locations where spills or leaks previously occurred has received regulatory closure, and no further action at those locations is necessary.

Infrastructure

Substances such as asbestos, lead, and mercury could be present in some buildings on campus. Underground utility tunnels may also contain asbestos. Any activity that involves cutting, grinding, or drilling during building renovation or demolition, or relocation of underground utilities, could release friable asbestos fibers unless proper precautions are taken. Lead, a naturally occurring metallic element, can be found in numerous uses and sources, such as paint, water pipes, and solder in plumbing systems. Lead-based paint on buildings and structures may contaminate surrounding soils. Some equipment containing polychlorinated biphenyls (PCBs) may still be present in research labs, but all electrical transformers and/or buildings containing PCBs on campus have been removed. Elemental mercury, an insoluble liquid metal, is commonly used in laboratory and medical equipment, such as thermometers and manometers (used for measuring pressure), electrical equipment, and some water pumps.

In accordance with Sections 25915 through 25916 of the California Health and Safety Code, EH&S maintains an inventory of on-campus buildings that could contain asbestos and provides annual campuswide notification of these locations. EH&S also maintains a database and construction documentation with respect to buildings painted with lead-based paint. All State and federally mandated procedures relating to hazardous materials that may be present in campus buildings or other infrastructure are implemented during renovation or demolition activities.

Radioactive Materials

Radioactive substances contain atoms that spontaneously emit radiation from the transformation of unstable atomic nuclei, which result in chemically different substances that may or may not be radioactive. Radioactive atoms are called "radionuclides" or "radioisotopes." Because radioactive materials emit ionizing radiation, their presence can be detected easily. Researchers and health care professionals take advantage of this easy detectability by using radioactive materials to study various biochemical functions in animals and humans. Radiopharmaceuticals (radioisotopes or drugs containing radioisotopes) are also used in medicine and research. Limited types and quantities of radioisotopes are also used in research laboratories. All radioisotopes used on campus are listed in the campus Broadscope Radioactive Materials License issued by the State and are stored in sealed containers designed to prevent release of radioactive materials to the environment.

Exposure to ionizing radiation can result in adverse human health effects that range from short-term mild symptoms (such as a sunburn) to serious illness or death, depending upon the amount and concentration of the radioactive source and the duration of the exposure. The extent to which exposure would result in any adverse effects depends on the radioisotope and the amount and duration of exposure.

Like chemical hazardous wastes, low-level radioactive waste (LLRW) from campus teaching, research, and health sciences-related activities are collected and managed by the Radiation Safety Division of EH&S. UCLA normally collects dry and liquid LLRW directly from its sources (researcher or clinical users). In accordance with strict regulatory guidelines and procedures, Radiation Safety Division transports the waste to the Environmental Services Facility (ESF), which is designed to safely store and contain materials that present a moderate explosion hazard (H-2), high fire or physical hazard (H-3), or health hazards (H-7).[9] In accordance with these guidelines, the Radiation Safety Division prepares and packages the waste for shipment and disposal, or for decay-in-storage within the ESF.

Dry LLRW with a half-life of less than 90 days is stored for decay (as part of the decay-in-storage program) in accordance with the Broadscope Radioactive Materials License until its radiation levels are indistinguishable from background levels. The waste is then compacted for disposal as nonradioactive waste and placed in dedicated storage containers for collection and transportation to a solid waste landfill. Liquid LLRW, with a half-life of less than 90 days, is bulked and containerized for off-site disposal.

For wastes that are longer-lived, the final disposal depends on the hazard class of the LLRW. The federal Nuclear Regulatory Commission regulations divide LLRW into Classes A, B, and C, depending on the concentration of isotopes and the half-life of the material. Class A is waste that is usually segregated from other waste classes at the disposal site; Class B is waste that must meet more rigorous requirements on waste form to ensure stability after disposal; and Class C is waste that must not only meet more rigorous requirements on waste form to ensure stability, but also requires additional measures at the disposal facility to protect against inadvertent intrusion (Code of Federal Regulations, Title 10, Volume 2, revised January 1, 2001:171–173).

For the last three years, all of UCLA radioactive waste has been LLRW Class A. UCLA contracts with radioactive waste brokers to remove radioactive waste from the campus, and the waste brokers take the waste to approved radioactive waste facilities, all of which are out of state. While the campus has produced no Class B or C waste during the past three years, the potential exists for the generation of some Class B waste in the future due to changes in medical or research activities. It is not anticipated that Class C waste would be generated on campus. However, even if the campus generated Class B and/or Class C waste in the same levels as in previous years, it would represent only 0.1 percent of the total radioactive waste volume generated on campus.

Dry and liquid radioactive waste volumes generated in 2001 were either incinerated or super-compacted by contractors to further reduce the volume before final disposal, and these efforts will continue to reduce all radioactive waste stream volumes. UCLA encourages researchers to continue to conduct micro-scale experiments and to use isotopes with short half-lives whose wastes can be processed by decay-in-storage. Researchers also have been encouraged to use biodegradable scintillation cocktails to reduce the volume of hazardous waste generated.

[9] Levels H-2, H-3, and H-7 are designations of the California Building Code that describe allowed occupancies in a structure.

Campus radioactive waste generation volumes in 2001 are shown in Table 4.6-1 (UCLA Radioactive Waste Generation, 2001). As noted above, all of this waste was Class A.

Table 4.6-1 Radioactive Waste Generation, 2001 (in ft^3)

Dry	Liquid	Crushed Scintillation Vials	Animal Waste
800	3300[1]	551.5[2]	15

1. All bulk liquids are dry-packed in absorptive material and incinerated at an out-of-state facility.
2. All scintillation vials are sent to approved out-of-state facilities.

Source: EH&S, February 2002

Biohazardous Materials

By statutory definition, biohazardous materials include biohazardous laboratory wastes and biologic specimens such as human or animal tissue, as defined by Section 25020.5 of the California Health and Safety Code.

UCLA has developed programs, practices, and procedures for monitoring, routine inspection, reporting, and waste management to reduce community and worker exposure to potential hazards associated with medical wastes and biological hazards. Activities that could create biohazardous aerosols are conducted in biosafety cabinets, which filter all released air to remove biohazardous materials. Biosafety cabinets and equipment with special filters to remove biological agents are used and tested regularly by EH&S. Regulations specify that medical wastes are stored in refrigerated facilities for not more than 90 days and that such wastes are properly packaged and labeled. Medical waste may also be rendered noninfectious through steam sterilization. UCLA uses a medical waste transporter (e.g., Stericycle) to transport and treat all medical wastes, which are subsequently disposed of in municipal landfills. The campus ships approximately one million pounds of medical waste per year for off-site treatment and disposal.

Groundwater

As noted in Section 4.7.1 (Hydrology and Water Quality Environmental Setting), measured depth to groundwater on campus is anticipated to range from 28 to 53 feet below grade, with a generally southerly flow (UCLA 1997; UCLA 2001). The campus overlies the Santa Monica Groundwater Basin. Elevated concentrations of total dissolved solids (TDS) and Volatile Organic Compounds (VOCs) have been identified in the western portion of the Basin. Site dewatering activities conducted in conjunction with excavation for past projects (e.g., the Southern Regional Library and Westwood Replacement Hospital) have not found any evidence of groundwater contamination. Although the University has no knowledge of groundwater contamination within the campus, the extent to which groundwater quality may have been affected by past activities is unknown. Soils are described in Section 4.5.1 (Geology and

Soils, Environmental Setting) with regard to soil types and permeable characteristics that could affect groundwater.

Disposal of Hazardous Materials Generated On-Campus

The campus is registered with the U.S. Environmental Protection Agency (EPA) as a generator of hazardous waste. The campus does not treat, store (for longer than 90 days), or dispose of hazardous chemical waste on site. All chemical waste recycling or disposal is managed through the EH&S. In most cases, EH&S picks up waste from a collection location or generator site and manages the recycling or disposal process for that waste. Some special projects may require a department to contract directly with a waste disposal vendor. In these cases, any waste removal must first be approved by EH&S. UCLA is required to use only approved and audited contractors, transporters, and disposal sites. In addition, UCLA must file reports with the State detailing waste disposal and recycling activities in addition to paying annual hazardous waste taxes based on volumes of waste disposed.

Before EH&S will collect materials, the materials must be packaged and labeled properly, which includes segregating incompatible materials, placing them in appropriate sealed containers, and identifying all components with approximate concentrations. Chemical wastes are further segregated by type, and consolidated, bulked, or compacted before a licensed hauler transports them from the campus to permitted off-campus facilities for incineration, treatment, recycling, or other disposal.

Hazardous waste is disposed of at licensed disposal facilities in California and other states. While municipal landfills were once the most common destination for hazardous waste, federal (1984 Amendments to the Resource Conservation and Recovery Act [RCRA]) and State (Hazardous Waste Control) law now bans their use for many of the most commonly generated hazardous wastes. Alternative treatment and disposal technologies, including incineration and recycling, are now more common methods of disposing of hazardous wastes, and the campus has developed hazardous waste minimization and recycling programs. As indicated above, UCLA currently generates only a Class A radioactive waste stream, which is transported by licensed hauler to the Envirocare facility in Toole, Utah. Class B and C wastes, if produced, would be transported to the Chem Nuclear System facility in Barnwell, South Carolina. Chem Nuclear is phasing down its acceptance of LLRW from other states, with a complete ban on waste from outside its LLRW compact in 2008. After 2008, other disposal options would likely become available. In the event that no site becomes available, the ESF has the capability of storage for seven to ten years or more of Class B and C wastes.

The annual volume of hazardous waste shipped to licensed disposal sites by UCLA in 2001 is shown in Table 4.6-2 (UCLA Hazardous Waste Shipped to Licensed Disposal Sites, 2001 [Waste Generated in Tons]). The information provided in this table includes routine disposal of chemicals from campus operations, such as research and teaching, as well as nonroutine or one-time disposal of materials, such as PCBs in equipment or asbestos. In conformance with law, the campus supports waste minimization efforts and recycles hazardous waste.

Table 4.6-2 Hazardous Waste Shipped to Licensed Disposal Sites, 2001 (waste generated in tons)

Asbestos	PCBs	Remediation Waste[1]	Lab/Operations[2]	Chemotherapy/ Chemical[3]	Mixed Radioactive/ Chemical[4]	Total
142	7	50	162	1	7	369

1. Represents nonroutinely generated hazardous waste from ongoing processes.
2. Includes chemical materials associated with teaching and research labs and facilities management; it does not include radioactive or biohazardous materials.
3. Includes chemical materials used by the hospital for treating patients; it does not include radioactive or biohazardous materials.
4. Includes a mix of radioactive and chemical materials associated with research labs; it does not include biohazardous materials.

Source: EH&S, February 2002

The total manifested hazardous waste generated in Los Angeles County from January 2001 through October 2001 was estimated to be 588,687 tons (DTSC 2002).[10] UCLA's contribution to the countywide total represents less than 0.01 percent.

Hazardous Materials Transportation Requirements

The campus contracts with licensed hazardous waste transporters to ensure that all hazardous wastes generated by the campus are transported off site for treatment or disposal at licensed hazardous waste facilities. Hazardous materials are routinely transported by truck or rail. The U.S. Department of Transportation (USDOT), Office of Hazardous Materials Safety, prescribes strict regulations for the safe transportation of hazardous materials, as outlined in Title 49 of the Code of Federal Regulations. In California, the California Highway Patrol (CHP) has the primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies. Specifically, Section 31303 of the California Vehicle Code requires that when hazardous materials are transported on state or interstate highways, the highway(s) that offer the shortest overall transit time possible shall be used. Transportation of hazardous materials along any city or state roadways within or near the campus is subject to all hazardous materials transportation regulations established by the California Highway Patrol

[10] This data was generated from a prototype data system and have not been certified by the DTSC. Updated data are not currently available.

and the Los Angeles Fire Department, and the City of Los Angeles Hazardous Materials Environmental Crimes Unit is actively involved in enforcing USDOT Hazardous Materials Transportation Regulations.

Hazardous Materials Emergency Response

In addition to the Business Plan, UCLA has also prepared a Campus Emergency Response Plan, which is disseminated campuswide and outlines the procedures to follow in case of an emergency. Specific procedures for campus emergency response workers are provided in the Disaster Response Manual, which includes procedures for the Disaster Initial Response Team (DIRT) and the Hazardous Materials Response Team (Haz Mat Team), both organized groups of EH&S and Facilities Management personnel who are trained and skilled in emergency response. The Campus Emergency Response Plan covers a broad range of emergency situations related to both human-made and natural disasters.

The campus Hazardous Materials Response Plan sets forth procedures of the Haz Mat Team, which responds specifically to releases of hazardous materials. Members of the Haz Mat Team receive specialized training in hazardous materials response, including 40 hours of Cal/OSHA Hazwoper training plus three days of field experience and a mandatory eight-hour annual Hazwoper refresher course, annual respirator training and fit testing, and hazardous materials technician and specialist training. The Haz Mat Team is required to respond to emergency releases on campus and may serve in a consulting role in events involving physical hazards.

The LAFD also provides hazardous materials incident emergency response services on campus. The Haz Mat Team provides a consulting and support function to the LAFD during incidents that involve both fire and hazardous materials. EH&S and Facilities Management work with the LAFD to continually review and update programs, practices, and procedures to coordinate emergency and hazardous materials incident planning and response.

Campus Hazardous Materials and Safety Programs

The programs outlined below are not exhaustive, but instead represent the major safety programs implemented on campus relating to hazardous materials management.

The campus has instituted a Hazardous Materials Management Program that identifies strategies for reducing hazardous wastes and managing hazardous materials in a research setting. The EH&S provides campus users with various guidelines concerning waste minimization strategies and proper disposal of hazardous waste at UCLA. The EH&S Industrial Hygiene Division consults to the campus on matters of health and safety related to the recognition, evaluation, and control of potentially harmful substances and physical agents in the workplace. The campus is also engaged in identification of general safety hazards and the correction of factors that contribute to the incidence of accidental injury.

The responsibility of ensuring the safe operation of a radiation safety program is through the programs, practices, and procedures of radiation safety committees. At UCLA, the Radiation Safety Committee and Medical Radiation Safety Committee are responsible for the use of radioactive materials and radiation-producing machines for nonhuman and human uses, respectively. The UCLA Radiation Safety Division ensures that the University is in compliance with the programs, practices, and procedures of the two committees, as well as Title 17 of the California Code of Regulations and conditions of the UCLA Broadscope Radioactive Materials License. The Radiation Safety Division manages various programs to demonstrate to the California Department of Health Services that the University can control and monitor the receipt, use, and disposal of any source of radiation. These programs include routine monthly and specialized training, isotope receipts/inventory, external and internal radiation monitoring, audit/decommissioning, calibration, radioactive waste and effluent monitoring, and database management. All Principal Investigators who wish to possess and use any source of ionizing radiation are required to possess a radiation use authorization approved by the Radiation Safety Committee or Medical Radiation Safety Committee. A full-time senior health physicist responsible for the Medical Center provides training for work with radiation-producing machines.

The Asbestos Management Program is an ongoing activity of coordinating construction and maintenance activities with safe work practices involving asbestos. Prior to disturbance, materials that are suspected of containing asbestos are tested for asbestos content. Inspection and sample collection is performed by EH&S or outside environmental consultants, and samples are analyzed by accredited laboratories. Those materials identified with asbestos content are properly removed using work practices and engineering controls that have been designed to reduce the potential for fiber release. All asbestos-containing materials are removed by licensed asbestos abatement contractors or by UCLA Facilities Management staff who have been specially trained to remove small quantities of asbestos materials. The University retains over a dozen environmental consultants to oversee asbestos abatement projects, verify abatement contractor's work methods, and collect air samples in and around negative-pressure enclosures where work is performed. EH&S maintains general oversight of the program, acting as in-house consultants to UCLA construction project managers and Facilities Management staff. EH&S maintains a historical sample database and copies of all project documentation.

The Respiratory Protection Program is a vital part of many campus activities at UCLA. Respiratory hazards are materials that pose a threat to the individual through inhalation of an airborne contaminant.

Respiratory hazards are encountered in emergency situations (fires or hazardous materials spills), construction or renovation activities, laboratory experiments, or tasks that require the use of chemicals. These situations can involve dangers such as gases and vapors, particulates (such as asbestos), and oxygen deficiency. When engineering or administrative controls cannot decrease contaminants to safe levels, respiratory protection is required. Different styles of respirators are found on campus. Depending on the hazard and the situation, appropriate respirators are selected for protective purposes. The Respiratory Protection Program includes training and fit testing of respirators.

The Chemical Exposure Monitoring Program evaluates potential personal exposures to hazardous substances. The program consists of a variety of activities implemented to evaluate a person's exposure, including observation of job routine, evaluation of workplace control measures, and environmental sampling. Several types of sampling are performed by EH&S, depending on the nature of the chemical hazard, the frequency of chemical use, and the way the chemical is handled. Some of the typical chemicals monitored at UCLA include asbestos, lead particulate (lead-based paint), formaldehyde, hazardous laboratory chemicals, solvent-based materials and cleaning products, and chemical carcinogens or extremely toxic substances. The Guidelines for Chemical Disposal provide detailed information concerning use and handling of incompatible chemicals. A Chemical Hygiene Plan establishes the various safety procedures and chemical handling rules for the laboratory, including detailed procedures to be followed in the event of a chemical spill.

The Lead Compliance Program is directed at reducing lead exposure to members of the University community. Painted surfaces are tested for lead content, and the hazards are assessed prior to disturbance. Inspection and sample collection is performed by EH&S or outside environmental consultants. Those materials identified with high lead content are removed using work practices and engineering controls that have been designed to reduce environmental exposure to lead dust. EH&S maintains general oversight of the program, acting as special in-house consultant to UCLA construction project managers and University Housing staff. EH&S maintains a historical sample database and copies of all project documentation.

The Environmental Compliance Program, also overseen by the EH&S, ensures that all operations at UCLA involving the use of hazardous materials reduce adverse impacts to people or the environment. This team acts as a liaison between campus departments and environmental regulatory agencies to ensure compliance with applicable federal, State, and local laws and regulations. All environmental permits for the campus, including South Coast Air Quality Management District (SCAQMD) permits, industrial wastewater permits, stormwater permits, underground storage tank permits, and treatment permits, are managed through the EH&S.

4.6.2 Regulatory Framework

The management of hazardous materials and hazardous wastes, including chemicals, radioactive materials, and biohazardous materials, is subject to numerous laws and regulations at all levels of government. These laws apply to instructional and research activities, operations and maintenance work, and other activities on campus. Summaries of federal and State laws and regulations related to hazardous materials management are presented below. California State law allows for certain hazardous materials regulatory programs, including those pertaining to USTs, hazardous materials storage, and hazardous materials management, to be delegated to local agencies.

Medical Waste Regulations

The United States Department of Health and Human Services (USDHHS), Centers for Disease Control and Prevention, and National Institutes of Health prescribe containment and handling practices for use in microbiological, biomedical, and animal laboratories. All UCLA laboratories follow the mandated hygienic practices. Based on the potential for transmitting biological agents, the rate of transmission of these agents, and the quality and concentrations of biological agents produced at a laboratory, Biosafety Levels are defined for four tiers of relative hazards. Biosafety Level 1 is for the least hazardous biological agents, and Biosafety Level 4 is for the most hazardous biological agents. Biosafety Levels for infectious agents are based on the characteristics of the agent (virulence, ability to cause disease, routes of exposure, biological stability, and communicability), the quantity and concentration of the agent, the procedures to be followed in the laboratory, and the availability of therapeutic measures and vaccines.

Federal and State laws, such as the Animal Welfare Act, specify standards for record keeping and the registration, handling, care, treatment, and transportation of animals. Such laws are enforced by the U.S. Department of Agriculture and the California Department of Health Services (DHS). Further, UCLA programs, practices, and procedures previously described for monitoring, routine inspection, reporting, and waste management have been developed to reduce potential community and worker exposure to hazards associated with the use of animals in research.

Medical wastes must be managed as a biohazardous material, in accordance with Section 25020.5 of the California Health and Safety Code. The management of biohazardous materials must comply with USDHHS guidelines and DHS regulations pertaining to such materials. Biohazardous medical waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment, and transportation. The DHS Medical Waste Management Program enforces the Medical Waste Management Act and related regulations.

Radioactive Materials Regulations

The Atomic Energy Act (42 U.S.C. Sections 2011–2259) (AEA) ensures the proper management of source, special nuclear, and by-product material. The AEA, and the statutes that amended it, delegate the control of nuclear energy primarily to the Department of Energy, the Nuclear Regulatory Commission, and the United States Environmental Protection Agency (EPA). The California Radiation Control Law (California Health & Safety Code Sections 114960–114985) is a regulatory program designed to provide for compatibility with the standards and regulatory programs of the federal government and integrate an effective system of regulation within the State. The program regulates sources of ionizing radiation and establishes procedures for performance of certain regulatory responsibilities with respect to the use and regulation of radiation sources. These laws and regulations govern the receipt, storage, use, transportation, and disposal of sources of ionizing radiation (radioactive material) and protect the users of these materials and the general public from radiation hazards.

The use of radioactive materials on campus is specifically subject to the conditions of a Broadscope Radioactive Materials License issued and administered by the Radiologic Health Branch of the DHS. The Radiation Safety Division of EH&S administers and monitors campus compliance with license requirements. Broadscope licensing requirements include routine inspection and monitoring of areas where radioactive materials are used to ensure that surfaces are not contaminated with radioactivity above background levels. Under the Broadscope license, renovation or demolition of facilities using radioactive material requires decommissioning of the facilities. This involves radiation testing and conducting decontamination and waste handling activities in accordance with applicable regulations.

Operational and Disposal Regulations

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for ensuring worker safety in the handling and use of chemicals in the workplace. In California, Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices.

Hazardous Waste Handling

Cal-EPA and DTSC regulate the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

Asbestos Regulations

The Clean Air Act regulates asbestos as a hazardous air pollutant, which subjects it to regulation by SCAQMD under its Rule 1403. OSHA also regulates asbestos as a potential worker safety hazard. These rules and regulations prohibit emissions of asbestos from demolition or construction activities, require medical examinations and monitoring of employees engaged in activities that could disturb asbestos, mandate precautions and safe work practices to reduce the potential for release of asbestos fibers, and require notice to federal and local government agencies prior to renovation or demolition activities that could disturb asbestos.

Lead Regulations

Because of its toxic properties, lead is regulated as a hazardous material. Lead is also regulated as a toxic air contaminant. State-certified contractors must perform inspection, testing, and removal (abatement) of lead-containing building materials in compliance with applicable health and safety and hazardous materials regulations. The Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X) requires disclosure of the presence of lead paint in residential structures.

Hazardous Materials Transportation

The USDOT prescribes strict regulations for the safe transportation of hazardous materials, including requirements for hazardous waste containers and license haulers who transport hazardous waste on public roads.

Emergency Response to Hazardous Materials Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, State, and local government and private entities. Response to hazardous materials incidents is one component of this plan. The State Office of Emergency Services administers the plan, which coordinates the responses of other agencies, including Cal-EPA, CHP, California Department of Fish and Game, the Regional Water Quality Control Board (RWQCB), and the Radiologic Health Branch of the DHS. EH&S will continue to implement the plan at UCLA, in cooperation with the LAFD.

4.6.3 Project Impacts and Mitigation

Analytic Method

The analysis in this section focuses on the use, generation, disposal, transport, or management of hazardous or potentially hazardous materials on campus. The volume of hazardous waste generated by various campus activities is quantified, as described in Table 4.6-1, Table 4.6-2, and in the discussion of medical waste generated on campus. Disposal options, the probability for risk of upset, and the severity of consequences to people or property associated with the increased use, handling, transport, and/or disposal of hazardous materials associated with implementation of the 2002 LRDP are also analyzed.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on hazards and hazardous materials if it would result in any of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

Effects Not Found to Be Significant

Threshold	Would the project be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, resulting in a safety hazard for people residing or working in the project area?

The campus is not located within two miles of a public airport or public use airport and has not been included in an airport land use plan. The Initial Study consequently concluded that no impacts associated with implementation of the 2002 LRDP would occur with respect to safety hazards associated with any public use airport, and no additional analysis is provided in this EIR.

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland?

The Initial Study concluded that because the UCLA campus is not located adjacent to wildlands, no risks associated with wildland fires would affect, or be affected by, development under the 2002 LRDP. Therefore, no further analysis of wildland fires is provided in this EIR.

Impacts and Mitigation

Threshold	Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Impact LRDP 4.6-1 **Implementation of the 2002 LRDP would not expose campus occupants or the nearby public to a significant hazard due to the routine transport, use, disposal, or storage of hazardous materials (including chemical, radioactive, and biohazardous waste). This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP could result in the development of additional laboratories and other research facilities that would use, store, or require the transportation and disposal of hazardous materials. While the amount and type of hazardous materials may vary over time with changes in research and additions to hazardous materials lists, the general range and type of hazardous materials used on campus is not expected to substantially change upon implementation of the project. UCLA will continue to use materials, some of which are considered hazardous, during the course of daily operations. These hazardous materials include many of the inorganic and organic chemicals, chemical reagents and reaction products, solvents, mercury, lead, asbestos, radioisotopes, biohazards, fuels, oils, paints, cleansers, and pesticides that are currently used in laboratory research, building and grounds maintenance, vehicle maintenance, and fine arts. In addition, the 2002 LRDP would result in an increase in the average weekday on-campus population of 4,873 during the regular session and 6,992 during the summer session, which would increase the number of individuals potentially exposed to hazardous materials.

Possible development in each of the campus zones is described in detail in Table 4.8-3 (Proposed Development Allocations by Zone) and Impact 4.8-1 in Section 4.8 (Land Use and Planning) of this EIR; however, the proposed uses (and areas of campus) that could involve the routine use, handling, or disposal of hazardous materials include the following:

- **Bridge zone**—Proposed development in this zone could include ambulatory patient care and associated research facilities that could contain clinical and laboratory uses that would use, handle, and dispose of biohazardous wastes, hazardous chemicals, and radioactive waste. The Bridge zone is located north of commercial and retail uses in Westwood Village and south of high-density multi-family residential uses located just northeast of the Village.
- **Core Campus zone**—Proposed development in the Core Campus zone could include teaching, and research laboratories that could use, handle, and dispose of hazardous materials during campus research. The Core Campus zone is located west of low-density residential uses in the Holmby-Westwood neighborhood.
- **Health Sciences zone**—Proposed development in this zone could include potential expansion of existing health sciences programs, which routinely use, handle, and dispose of hazardous materials. The Health Sciences zone forms part of the southern edge of the campus and is located north of Westwood Village.
- **Northwest zone**—The Northwest Housing Infill Project would not routinely handle, use, or dispose of hazardous materials, with the limited exception of standard cleaning products, chlorine used in the proposed pool, and pesticides or herbicides used in association with standard campus landscaping and maintenance practices. The NHIP does not include any laboratory or medical uses, which are the primary facilities that handle hazardous materials.
- **Southwest zone**—Proposed development in the Southwest zone could include teaching and research laboratories that could use, handle, and dispose of hazardous materials. Off-campus uses adjacent to the Southwest zone include the Los Angeles National Cemetery to the west, high-density multi-family residences to the north, and commercial uses to the east and south.

The individuals most at risk due to increased hazardous materials use associated with implementation of the 2002 LRDP would be those (students, campus staff, and construction employees) who work at locations where hazardous materials are found, such as laboratories, medical facilities, or construction sites. Whether a person exposed to a hazardous substance at one of these locations would suffer adverse health effects depends upon a complex interaction of factors to determine the effects of exposure to hazardous materials: the exposure pathway (the route by which a hazardous material enters the body);

the amount of material to which the person is exposed; the physical form (e.g., liquid, vapor) and characteristics (e.g., toxicity) of the material; the frequency and duration of exposure; and the individual's unique biological characteristics, such as age, gender, weight, and general health. Adverse health effects from exposure to hazardous materials may be short-term (acute) or long-term (chronic). Acute effects can include damage to organs or systems in the body and possibly death. Chronic effects, which may result from long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage, and cancer.

Off-site hazardous materials exposure would only reasonably occur through limited circumstances such as accident during transport or use. The risks associated with the transport of hazardous materials, both to and from campus and internally, are addressed in Impact LRDP 4.6-3. Potential air toxic impacts resulting from air emissions from fume hoods and other building vents are discussed in Impact LRDP 4.2-7 of Section 4.2 (Air Quality) of this EIR.

Use of Chemical Materials

State, federal, and local regulations and campus programs, practices, and procedures, including the use of safety equipment, ensures that the potential for worker and/or public exposure to hazardous materials from improper or unsafe activities, or from accidents, is less than significant, as demonstrated in the following discussion.

To reduce the potential for exposure to airborne chemicals, workers take standard precautions, such as working under fume hoods when using chemicals that could present exposure hazards. The chemical fume hood is a critical health and safety control in the laboratory setting, ensuring an adequate level of protection from the possible harmful affects of chemicals. Laboratory fume hoods are generally a box-like structure open on one side. Air is drawn through the fume hood and discharged to an exterior exhaust system through the roof of the facility. In addition, some fume hoods are equipped with air cleaning devices. Proper use of fume hoods keeps indoor laboratory toxic air contaminants below the suggested guidelines of the American Conference of Governmental Industrial Hygienists (Threshold Limit Values) and OSHA legal limits (Permissible Exposure Levels). EH&S has established a program to inspect and certify on an annual basis the more than 1,500 campus laboratory fume hoods. Compliance with the provisions of the Chemical Exposure Monitoring Program and Respiratory Protection Program, along with other relevant campus programs, practices, and procedures, which are further described in Section 4.6.3, Regulatory Setting, of this document, would be employed to ensure that impacts remain less than significant.

To prevent exposure through skin contact, UCLA requires that protective clothing, such as laboratory coats, gloves, and safety glasses be worn while handling hazardous materials. In addition, proper washing after handling chemicals is required. Eating, drinking, and smoking are prohibited in laboratories and other areas where hazardous materials are used. These procedures are disclosed to all staff that work with hazardous materials, and this training increases the safety awareness of UCLA employees and students and further reduces the risks of exposure to hazardous chemicals through inhalation, absorption, ingestion, and injection. Should an accident occur that could cause an individual to be exposed to a hazardous material, required emergency equipment, including fire extinguishers, eyewashes, and safety showers, are also available.

Cal/OSHA requires all institutions that use hazardous materials to implement a Hazard Communication Program and train employees that use hazardous chemicals in the safe use of those materials. EH&S offers training for campus departments that includes, for example, a review of the Cal/OSHA regulations, information contained in Material Safety Data Sheets (MSDS), and the proper use of personal protective equipment. The EH&S implements all safety procedures and conducts safety programs to ensure that these procedures are consistently followed. UCLA will continue to implement these (or equivalent) programs, practices, and procedures and, as needed, these programs could be expanded.

Title 8 of the California Code of Regulations (Section 3203 of the General Industry Safety Orders) also requires every California employer to have a written Injury and Illness Prevention Program to provide a safe and healthful workplace. OSHA mandates methods of documenting, investigating, and controlling accidents that result in skin penetration. Evidence presented during OSHA rule-making procedures indicates that these programs and methods are effective in reducing the number and severity of injuries and illness in the workplace.

Use of Radioactive Materials

Radioactive materials use at UCLA is monitored by the EH&S Radiation Safety Division to ensure consistency with the requirements of the Broadscope Radioactive Materials License, which articulates standards to maintain exposure levels below applicable legal standards, thereby protecting users of radioactive materials. Like all hazardous materials, the effects of the routine use of radioactive materials are limited to areas where exposure may occur and decreases substantially with distance. For this reason, the individuals most at risk would be those specially trained in the use of radioactive materials, which would reduce the likelihood for accidental exposure through improper handling techniques. Furthermore, all individuals who handle radioactive waste are required to wear a personal monitor that determines their cumulative exposure to radiation. If the monitor indicates that established safety levels might be exceeded, the individual will not be exposed to potential sources of radiation until the monitor indicates that safety levels can be maintained.

In accordance with strict regulatory guidelines, the campus transports radioactive waste to the ESF, where it is prepared and packaged for shipment and disposal, or for decay-in-storage within the ESF. Liquid LLRW with short half-lives is bulked and containerized for off-site disposal. Dry LLRW with short half-lives is stored at the ESF until its radiation levels are indistinguishable from background levels and is then compacted and packaged in dedicated storage containers for transport to off-site solid waste disposal facilities. Longer-lived wastes are removed by contracted radioactive waste brokers and transported to approved radioactive waste facilities. The ESF has been designed to safely store and contain materials that present a moderate explosion hazard (H-2), high fire or physical hazard (H-3), or health hazards (H-7), as further described in Section 4.6.1 (Environmental Setting, Hazardous Materials Used On Campus, Radioactive Materials).

UCLA generates only Class A radioactive waste at this time. The ESF would provide secure storage space for long-term storage of Class B and C radioactive wastes if such storage is required in the future, or storage could be provided at off-site disposal facilities. Campus waste disposal practices described in Section 4.6.1 (Environmental Setting, Hazardous Materials Used On Campus, Radioactive Materials), such as decay-in-storage in the ESF and the use of radioactive waste brokers who take waste to approved radioactive waste facilities, and adherence to strict regulatory guidelines reduce the risk of exposure to radioactive waste.

UCLA's programs, practices, and procedures for handling radioactive materials in compliance with all established regulatory requirements ensure that the potential for significant health and safety hazards remains less than significant.

Use of Biohazardous Materials

In handling biohazardous materials, UCLA follows guidelines promulgated by the USDHHS that determine the level of safety precautions that must be used for four tiers of relative hazards. Biosafety Level 1 is for the least hazardous biological agents, and Biosafety Level 4 is for the most hazardous biological agents. Biosafety Levels for infectious agents are based on the characteristics of the agent (virulence, ability to cause disease, routes of exposure, biological stability, and communicability), the quantity and concentration of the agent, the procedures to be followed in the laboratory, and the availability of therapeutic measures and vaccines. Biosafety Level 1 agents pose minimal or no known potential hazard to individuals and the environment. Biosafety Level 2 agents are considered to be of ordinary potential hazard and may produce varying degrees of disease through accidental inoculation, but may be effectively contained by ordinary laboratory techniques and specific laboratory equipment. Biosafety Level 3 agents pose more substantial risks, and work with these agents must be conducted in contained facilities for which air flow is directed into the laboratory and access is controlled separately from public areas. UCLA performs no Biosafety Level 4 activities, but does perform Biosafety Level 1, 2, and 3 activities.

Occupational and public safety is protected by selecting the appropriate biological and physical containment levels for each biological material handled. As further discussed in Section 4.6.1 (Environmental Setting, Hazardous Materials Used On Campus, Biohazardous Materials), standard microbiological practices, such as limiting facility access, washing hands after handling, decontaminating work surfaces, wearing gloves and other safety equipment, using biosafety cabinets, and proper disposal, reduce risks resulting from exposure to biohazardous materials. Current State testing, monitoring, and disposal regulations and EH&S programs pertaining to the management of biohazardous materials, including infectious agents, would further ensure that the risks associated with the use of biohazardous substances remain less than significant.

Disposal of Hazardous Materials

UCLA disposes of hazardous wastes in compliance with Titles 8, 14, 17, and 22 of the California Code of Regulations, which ensures that impacts remain less than significant. Small amounts of spent hazardous materials generated on a daily basis in laboratories and maintenance facilities are placed in special containers and are kept in ventilated accumulation areas out of normal use patterns. The EH&S collects these used materials, identifies whether they can be re-used, packages them, and arranges for transportation and delivery for off-site treatment, recycling, or disposal.

All other hazardous wastes are collected and handled by EH&S in designated, secured areas designed to prevent accidental release to the environment. Wastes are transported off campus by licensed hazardous waste transporters, and emergency response procedures for all on-campus storage sites are included in the Business Plan, the Campus Emergency Response Plan, Hazardous Materials Response Plan, and Hazardous Materials Management Program.

Summary

While the 2002 LRDP would result in the development of additional laboratories and other research facilities that would use, store, or require the transportation and disposal of hazardous materials, as well as a limited increase in the average weekday on-campus population that could be exposed to hazardous materials risks, compliance with campus programs, practices, and procedures and safety standards related to the use, disposal, and transport of hazardous materials and wastes, and the safety procedures mandated by applicable federal, State, and local laws and regulations (RCRA, California Hazardous Waste Control Law, and principles prescribed by the USDHS, Centers for Disease Control and Prevention, and National Institutes of Health) would ensure that risks resulting from the routine use of hazardous materials and disposal of hazardous wastes remain less than significant.

A complete analysis of the risks of utilization of anhydrous ammonia in the ESF is contained in the AHCFRP FEIR (Section IV.M, Hazardous Materials), which determined that the impact of the use of ammonia in the cogeneration facility would be less than significant. A Risk Management Prevention Plan (RMPP) has been developed for the ammonia stored and utilized in the ESF in accordance with California Health and Safety Code, Sections 25331, *et seq.* and approved by the Los Angeles Fire Department under its authority as administering agency for RMPPs. As noted previously, as part of the AHCFRP, the ESF is in the process of conversion to the use of urea, scheduled for completion in early 2003.

In addition, the campus Business Plan, the Hazardous Materials Management Program, Hazard Communication Program, Injury and Illness Prevention Program, Chemical Exposure Monitoring Program, and other safety programs reduce the risk of exposure to biohazardous and chemical hazardous materials by establishing protocols to safely handle and store hazardous substances, which ensures that a less-than-significant impact would occur. The UCLA Radiation Safety Division ensures that the University is in compliance with the California Code of Regulations (Title 17) and conditions of the UCLA Broadscope Radioactive Materials License, and the utilization of radiation use authorizations and ongoing training regarding radiation safety also reduce the risks from radiation-related use or disposal on campus, thereby ensuring that a less-than-significant impact would occur. In addition, the CHP and USDOT strictly regulate hazardous materials transportation to and from campus.

Although implementation of the 2002 LRDP would expose more people to potential hazards, safety procedures mandated by federal and State laws and regulations, as previously described, as well as the continuation of existing (or equivalent) UCLA programs, practices, and procedures required by PP 4.6-1 (and described in detail in Section 4.6.1 [Environmental Setting]), would ensure that the use, transport, or disposal of hazardous materials does not expose campus occupants or the nearby public to significant health or safety risks. As part of implementation of the 2002 LRDP, federal and State law, as well as all UCLA procedures for handling hazardous wastes, would be extended to all new facilities developed under the 2002 LRDP. The potential impact of increased hazardous chemical, radioactive material, and biohazardous material use at UCLA would remain less than significant.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.6-1 *The campus shall continue to implement the same (or equivalent) health and safety plans, programs, practices, and procedures related to the use, storage, disposal, or transportation of hazardous materials during the 2002 LRDP planning horizon, including, but not necessarily limited to, the Business Plan, Hazardous Materials Management Program, Hazard Communication Program, Injury and Illness Prevention Program, Chemical Exposure Monitoring Program, Asbestos Management Program, Respiratory Protection Program, Risk Management Prevention Plan for the use and storage of ammonia in the ESF, EH&S procedures for decommissioning and demolishing buildings that may contain hazardous materials, and the Broadscope Radioactive Materials License. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.*

Following PP 4.6-1 would ensure that this impact remains less than significant by continuing to implement health and safety plans, programs, and procedures related to the use, storage, disposal, or transportation of hazardous materials that outline safe handling practices, provide for emergency clean-up procedures if an accidental exposure occurs, and designate safe disposal practices, all in compliance with State, federal, and local laws. No mitigation is required.

Impact LRDP 4.6-2 **Implementation of the 2002 LRDP would not expose construction workers and campus occupants to a significant hazard through the renovation or demolition of buildings or relocation of underground utilities that contain hazardous materials. This is considered a *less-than-significant* impact.**

Demolition of existing buildings could release hazardous materials if lead-based paint or asbestos-containing materials are present in the structure(s). Any activity that involves cutting, grinding, or drilling during building renovation or demolition, or relocation of underground utilities, could release friable asbestos fibers and/or lead dust unless proper precautions are taken. As noted in Section 4.6.1 (Environmental Setting), all applicable federal and State rules and regulations must be followed when asbestos-containing materials are disturbed during construction or renovation. In addition, the campus has an established Asbestos Management Program to ensure safe work practices involving asbestos.

These programs require the notification of federal and local government agencies prior to beginning any renovation or demolition that could disturb asbestos, as well as the use of precautions and safe work practices to eliminate or reduce the potential for release of asbestos fibers, and medical examinations and monitoring of employees engaged in activities that could disturb asbestos. Similarly, the campus Lead Compliance Program is directed at reducing lead exposure to a less-than-significant level through education, inspection, testing, and removal.

Buildings demolished during construction activities could also contain biohazardous materials, including medical wastes. EH&S programs, practices, and procedures and current State testing, monitoring, and disposal regulations pertaining to the management of biohazardous materials, including medical waste, eliminate or reduce the potential for biohazardous substances to be present in fixtures or building materials removed during demolition. In addition, the Broadscope Radioactive Materials License requires testing and implementation of decontamination and waste handling activities in accordance with applicable regulations when facilities using radioactive materials are decommissioned for purposes of renovation or demolition.

Compliance with federal and State health and safety laws and regulations, as well as following existing (or equivalent) campus programs, practices, and procedures, as required by PP 4.6-1, would ensure that this impact remains less than significant. No mitigation is required.

Threshold	Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Impact LRDP 4.6-3 **Implementation of the 2002 LRDP would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. This is considered a *less-than-significant* impact.**

The precise increase in the amount of hazardous materials transported to or from the campus as a result of implementation of the 2002 LRDP cannot be definitively predicted due to varying research needs over time, which cannot be anticipated as part of this programmatic document, and changes in the classification of hazardous materials. Nonetheless, the following discussion focuses on the potential nature and magnitude of risks associated with the accidental release of hazardous materials typically used on campus.

Off-Campus Transportation of Hazardous Materials

While UCLA programs, practices, and procedures specifically govern receipt of hazardous materials at UCLA, the USDOT Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the Code of Federal Regulations, and implemented by Title 13 of the California Code of Regulations. Transportation of hazardous materials along any City or State roadways within or near the campus is also subject to all hazardous materials transportation regulations established by the California Highway Patrol pursuant to the California Vehicle Code and the LAFD pursuant to the City of Los Angeles Fire Code (Article 7 of Chapter V of the Los Angeles Municipal Code). Additionally, the City of Los Angeles Hazardous Materials Environmental Crimes Unit is actively involved in enforcing USDOT hazardous materials transportation regulations.

The transportation of hazardous materials can result in accidental spills, leaks, toxic releases, fire, or explosion. Licensed vendors bring hazardous materials to and from the campus, and manifests are completed and maintained by EH&S for all hazardous waste that is transported in connection with campus activities. The DHS also maintains copies of UCLA's waste manifests. In conformance with legal requirements, incoming radioactive material is routed through the Radiation Safety Division of the EH&S for monitoring and recording of each acquisition, except for large sources and clinical isotopes, which are delivered directly to authorized users.

The UCLA Business Plan describes procedures to follow in the event of an accidental release of hazardous materials, including detailed procedures for members of the campus Disaster Initial Response Team (DIRT) and Haz Mat Team, who initially respond to a hazardous materials release. The Haz Mat Team, which operates under the auspices of the DIRT, is specially trained in first-response procedures for hazardous materials releases, including evacuation and contact procedures. Some hazardous materials emergencies may require the further assistance of the LAFD if they are significant (in terms of volume or area affected) or where incidents involve both fire and hazardous materials, which assistance would be provided, if needed, under the mutual aid agreement.

UCLA currently ships hazardous chemical waste for disposal approximately every two weeks, biohazardous waste once a week, and radioactive waste approximately once a month. Therefore, hazardous waste shipments could occur as frequently as several times per week, barring unusual circumstances, such as laboratory demolition. As previously mentioned, Section 31303 of the California Code of Regulations requires that when hazardous materials are transported on state or interstate highways, the highway(s) that offer the shortest overall transit time possible shall be used, and as required by federal and State laws, all other all hazardous materials transportation regulations must be followed, such as USDOT regulations for packaging and handling hazardous materials to prevent accidental spills of hazardous materials during transit. Compliance with all applicable federal and State laws, as well as campus programs, practices, and procedures related to the transportation of hazardous materials will continue to reduce the likelihood and severity of accidents during transit, thereby ensuring that a less-than-significant impact would occur.

On-Campus Transportation of Hazardous Waste

In addition to transport of hazardous materials to and from campus, the transport of hazardous materials also occurs among campus facilities (between and within buildings, from room to room, within hallways, and up and down stairwells and elevators). Accidents could occur as these materials are moved about the campus, and exposure of site occupants could occur through fire or explosion. Hazardous materials transported between UCLA facilities would be sealed in break-resistant containers with secondary containment, such as buckets or carts, to reduce the risk of exposure. Further, all individuals who handle hazardous materials receive specialized training from the campus and are also given a copy of the Materials Safety Data Sheets (MSDS), which outline procedures to follow in the event of an emergency. If a spill occurs, the DIRT or Haz Mat Team would be immediately notified. If required, the area of potential affect would be isolated (through the use of temporary and/or permanent barriers) and evacuated to reduce the potential for human exposure and to allow for prompt and effective cleanup by the campus DIRT, Haz Mat Team, and/or the LAFD.

The consequences of spills as a result of a fall or dropping a container would depend on whether the hazardous material was released, the specific hazards associated with the material, the facility design, and the availability of emergency response equipment. In addition to health impacts associated with direct contact from an accidental spill, indirect impacts could also occur. Spills that occur on permeable surfaces may be difficult to decontaminate and may require complete removal of the surface. In areas without adequate ventilation, including partially enclosed outdoor areas, such as walkways, stairwells, or courtyards, vapors from released volatile materials could be trapped in stagnant air pockets, and persons entering these areas after such a spill could be subject to health hazards associated with such vapors. In these instances, all individuals would be evacuated from the affected area until the vapors dissipate to safe levels as determined by the Haz Mat Team and/or EH&S staff.

To reduce the likelihood and severity of accidents during on-campus transit, all applicable federal and State laws and existing campus programs, practices, and procedures (as required by PP 4.6-1) related to the transportation or cleanup of hazardous materials (in the event of an accidental release) will continue to be implemented to ensure that a less-than-significant impact would occur. These laws, regulations, programs, practices, and procedures include training regarding the handling of hazardous wastes and fully developed emergency response programs articulated in the Business Plan, Hazardous Materials Response Plan, and Campus Emergency Response Plan, which are described in Section 4.6.1 (Environmental Setting, Hazardous Materials Used On Campus, General Chemicals and Hazardous Materials Emergency Response). In summary, these campus plans outline the procedures to follow in case of an emergency involving hazardous materials.

Hazardous Materials Storage

Most hazardous materials stored on campus present little risk of upset. Hazardous materials are stored in laboratories and at the ESF in designated secured areas designed to prevent accidental release to the environment. As a facility, the ESF has been designed pursuant to California Building Code requirements to safely accommodate materials that present a moderate explosion hazard (H-2), high fire or physical hazard (H-3), or health hazards (H-7). In addition, the ESF is currently undergoing a conversion from the use of anhydrous ammonia to aqueous ammonia, which is not designated as a hazardous material. This conversion is anticipated to be complete by the beginning of 2003.

Hazardous materials for research and academic use are generally stored in laboratories in small, individual containers. In the unlikely event of an accidental release, these small storage volumes limit potential consequences to the individual laboratory in which they are stored. Compliance with all applicable federal and State laws and existing campus programs, practices, and procedures (as required by PP 4.6-1) related to the storage of hazardous materials will continue to be implemented to maximize containment (through safe handling and storage practices described above) and to provide for prompt and effective clean-up if an accidental release occurs, thereby ensuring that a less-than-significant impact would occur.

Hazardous Materials Use

Hazardous materials use would present a slightly greater risk of accident than hazardous materials storage. However, for those employees and students that work with hazardous materials, such as researchers and/or medical personnel, the amount of hazardous materials that are handled at any one time is relatively small, reducing the potential consequences of an accident during handling. Further, UCLA would continue to comply with federal and State laws and existing campus programs, practices, and procedures to eliminate or reduce the consequence of hazardous materials accidents. For example, staff and students who work around hazardous materials will continue to wear appropriate protective equipment, and safety equipment is routinely available in all areas where hazardous materials are used.

Major hazardous materials accidents are extremely infrequent, and additional emergency response capabilities are not anticipated to be necessary to respond to the potential incremental increase in the number of incidents that could result from implementation of the 2002 LRDP. Continued compliance with all applicable federal, State, and local laws and regulations pertaining to the transport, use, disposal, and handling of hazardous waste, as well as following campus programs, practices, and procedures pursuant to PP 4.6-1, would ensure that this impact remains less than significant. No mitigation is required.

Impact LRDP 4.6-4 **Implementation of the 2002 LRDP would not create a significant risk of exposure of campus occupants and construction workers to contaminated soil or groundwater. This is considered a *less-than-significant* impact.**

While some campus facilities are included on lists and databases compiled by applicable federal, State, and local agencies pursuant to Government Code Section 65962.5, these sites consist of registered underground storage tanks and hazardous materials storage locations, rather than contaminated sites (e.g., soil or groundwater). The campus has never had a documented instance of contaminated soil and/or groundwater caused by construction or operational activities. While there have been localized areas of soil contamination in connection with leaking USTs, all sites on campus have been remediated and properly closed. All remaining USTs on campus conform to applicable federal, State, and local regulations and are registered and permitted by the LAFD. In the event that USTs are uncovered or disturbed, they would be closed in place or removed. While removal could pose health and safety risks, such as the exposure of workers, tank handling personnel, and the public to tank contents or vapors, the potential risks, if any, would be reduced by managing the tank according to the Underground Storage Tank Program (USTP) of the Los Angeles Regional Water Quality Board, which has established guidelines for investigation and closure of USTs, as well as cleanup of sites contaminated by leaking USTs, to ensure that a less-than-significant impact would occur.

While there are no known locations of soil or groundwater contamination on campus, and the campus has not historically participated in activities or provided services that could likely result in soil and/or groundwater contamination (i.e., gas stations, oil refineries, landfills, manufacturing plants, or other industrial facilities), it is possible that contamination could exist in localized areas as the result of pesticide or herbicide use during routine landscape/turf maintenance practices or in association with the removal or disturbance of older underground utilities or unidentified buried debris.

The use of pesticides is governed by the State Department of Pesticide Regulation and is overseen by a licensed pest control advisor on campus. The campus reviews local agricultural guidelines in determining herbicide and pesticide use. With respect to other potential sources of soil contamination, such as underground utilities or other unidentified buried debris, PP 4.6-4 requires specific procedures that the campus will follow in the unlikely event that contaminated soil is discovered during construction activities to ensure that the risk of exposure to campus occupants or construction workers remains less than significant.

If required during construction activities, dewatering could result in the withdrawal of contaminated groundwater. If the groundwater contains contaminants above regulatory levels, the water could present a hazard to people or the environment unless properly managed. However, UCLA requires that contractors implement best management practices during construction dewatering to avoid exposure of campus occupants or construction workers to potentially contaminated groundwater, such as groundwater testing, containment of contaminated groundwater in storage tanks for subsequent treatment and/or disposal, and/or the provision of release response information. In addition, subject to Section 13263 of the California Water Code, the Regional Water Quality Control Board issues Waste Discharge Requirements to control discharges (including groundwater) to land or water, and PP 4.6-4 requires specific procedures that the campus will follow in the unlikely event that contaminated groundwater is discovered during construction activities to ensure that the risk of exposure to campus occupants or construction workers remains less than significant.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.6-4

While not expected to occur on-campus, if contaminated soil and/or groundwater is encountered during the removal of on-site debris or during excavation and/or grading activities, the construction contractor(s) shall stop work and immediately inform the EH&S. An on-site assessment shall be conducted to determine if the discovered materials pose a significant risk to the public or construction workers. If the materials are determined to pose such a risk, a remediation plan shall be prepared and submitted to the EH&S to comply with all federal and State regulations necessary to clean and/or remove the contaminated soil and/or groundwater. Soil remediation methods could include, but are not necessarily limited to, excavation and on-site treatment, excavation and off-site treatment or disposal, and/or treatment without excavation. Remediation alternatives for cleanup of contaminated groundwater could include, but are not necessarily limited to, on-site treatment, extraction and off-site treatment, and/or disposal. The construction schedule shall be modified or delayed to ensure that construction will not inhibit remediation activities and will not expose the public or construction workers to significant risks associated with hazardous conditions.

Following PP 4.6-4 would ensure that this impact remains less than significant by providing specific procedures to follow in the event that contaminated soil and/or groundwater is discovered. No mitigation is required.

Threshold	Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Impact LRDP 4.6-5 **Implementation of the 2002 LDRP would not result in hazardous emissions but could require the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. This is considered a *less-than-significant* impact.**

Existing schools within this radius are the Corinne A. Seeds University Elementary School, which is located in the Core Campus zone, and Marymount High School, which is located off campus just north of Sunset Boulevard (just north of the Core Campus zone). The Childcare Center is also located on campus in the Northwest zone, and a potential expansion of the center is anticipated during the planning horizon for the 2002 LRDP. Additional laboratories could be constructed in the Core Campus zone, which could expose children to increased risks associated with hazardous material handling or transport. No laboratories or other facilities that generate or use hazardous materials would be constructed in the Northwest zone, which is the primary designated residential and childcare area of campus.

While hazardous materials and waste could be handled within one-quarter mile of an existing or proposed school as a result of implementation of the 2002 LRDP, these materials would not exist in quantities significant enough to pose a risk to occupants of the school or the campus community, as established by Impact LRDP 4.6-1 through Impact LRDP 4.6-4 and Impact LRDP 4.6-6 through Impact LRDP 4.6-8. Furthermore, development under the 2002 LRDP would not require the handling of hazardous or acutely hazardous material within one-quarter mile of an existing or proposed school.

Section 15186 of the CEQA Guidelines establishes requirements for school projects, as well as projects near schools, to ensure that potential health impacts resulting from exposure to hazardous materials, wastes, and substances are examined and disclosed in an environmental document. Section 15186 of the CEQA Guidelines state that hazardous materials that must be considered a risk are those which may impose a health or safety hazard to persons who would attend or would be employed at the school. Specifically, when a project located within one-quarter mile of a school involves the construction or alteration of a facility that might reasonably be anticipated to emit hazardous or acutely hazardous air emissions or handle acutely hazardous materials or a mixture containing acutely hazardous materials in a quantity equal to or greater than that specified in Section 25536(a) of the Health and Safety Code, the Lead Agency must (1) consult with the affected school district regarding the potential impact of the project when circulating the environmental document and (2) notify the affected school district in writing prior to approval and certification of the environmental document. These requirements would only pertain to Marymount High School and the Corinne A. Seeds University Elementary School, which are the only schools located on campus or within one-quarter mile of campus, if a specific project is proposed in the northern portion of the Core Campus zone. While the 2002 LRDP does not include specific proposals for new development that might involve the use or transport of hazardous materials, the 2002 Draft LRDP EIR will be sent to all relevant school administration for review and comment, and the campus would continue to comply with the provisions of Section 15186 of the CEQA Guidelines, as it applies to any future development.

Section 15186 of the CEQA Guidelines also establishes notification and disclosure provisions if a project involves the purchase of a school site or the construction of secondary or elementary schools. The 2002 LRDP does not propose the construction or expansion of the Corinne A. Seeds University Elementary School, which is the only elementary or secondary school located on campus.

Compliance with federal and State regulations pertaining to hazardous wastes, including the CEQA Guidelines section specified above, as well as with existing campus programs, practices, and procedures required by PP 4.6-1, would ensure that risks associated with hazardous emissions or materials to existing or proposed schools located within one-quarter mile of campus would remain less than significant through proper handling procedures, disposal practices, and/or clean-up procedures. Short-term air quality impacts to sensitive receptors are addressed in Impact LRDP 4.2-7 of Section 4.2 (Air Quality) of this EIR, and were found to be less than significant. No mitigation is required.

Threshold	Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?

Impact LRDP 4.6-6 **Implementation of the 2002 LDRP would not result in construction of facilities on sites containing hazardous materials, and thus would not create a significant hazard to the public or environment. This is considered a *less-than-significant* impact.**

Appendix 9 identifies the locations of known hazardous materials sites on campus based upon a review of federal, State, and County hazardous waste lists and databases pursuant to Government Code Section 65962.5 (Environmental Data Resources [EDR] 2002), as updated by current campus records. The lists and databases include, but are not limited to, the Department of Toxic Substances Control Hazardous

Waste and Substances Site List (Cortese List), the Resource Conservation and Recovery Act database, and the California Hazardous Material Incident Report System. These lists and databases contain information about asbestos waste, underground storage tanks, photoprocessing chemicals, PCBs, unspecified solvent and organic mixture wastes, unspecified aqueous solution, metal sludge, other hazardous materials monitored by statute or regulation, known releases of hazardous substances, and locations where radioactive or other hazardous materials are stored or used.

There are no listed contaminated soil or groundwater sites on campus; however, there are on-campus USTs included on the lists and databases compiled by federal, State, and local agencies, as well as locations where hazardous materials are stored and/or used. All previously leaking USTs on campus have been remediated and properly closed. All remaining USTs on campus conform to applicable federal, State, and local regulations and are registered and permitted by the LAFD. If future UST-related cleanup were determined to be necessary, all work would be performed in accordance with the guidelines of the Los Angeles Regional Water Quality Board Underground Storage Tank Program. All non-UST hazardous waste storage locations are managed in accordance with all applicable federal and State laws, such as RCRA and the California Hazardous Waste Control Law, as well as with all existing campus programs, practices, and procedures described in Section 4.6.1 (Environmental Setting, Hazardous Materials Used On-Campus) and Section 4.6.2 (Regulatory Framework). Following PP 4.6-1 would ensure that this impact remains less than significant. No mitigation is required.

Threshold	Would the project be located within the vicinity of a private airstrip, resulting in a safety hazard for people residing or working in the project area?

Impact LRDP 4.6-7 **Implementation of the 2002 LRDP would not result in a safety hazard for an increased number of people residing or working on campus due to its proximity to the UCLA Medical Center helipad. This is considered a *less-than-significant* impact.**

The Medical Center operates a heliport for the emergency transport of critically ill patients. As previously analyzed in the 1998 Academic Health Center Facilities Reconstruction Plan (AHCFRP) Final EIR, the helipad will be relocated to the new hospital that is now under construction. Three flights paths are proposed as part of the new heliport for AHCFRP—northwest, northeast, and southwest (refer to Page IV.J-34 of the AHCFRP EIR). The distribution of helicopters using the three approach flight paths would be approximately 50 percent from the northeast, 25 percent from the northwest, and 25 percent from the southwest. Departure flight paths would be 70 percent to the southwest, 15 percent to the northwest, and 15 percent to the northeast.

Flight operations present a risk of accident to campus occupants or construction workers from crash or emergency landings. However, flights occur for emergencies only, averaging five to six flights per week. Based on conservative assumptions on flight path use, on- and off-campus residents to the northeast can expect one helicopter arrival per day and one helicopter departure every three days; residents to the northwest can expect up to one helicopter arrival every two days and one helicopter departure every three days; and residents to the southwest can expect up to one helicopter arrival and one to two helicopter departures every two days. Operations are limited to emergency patient transport and support of the organ transplant program. Nonemergency flights are not allowed.

According to the National Transportation Safety Board (NTSB), there were more than 10,000 helicopters in the United States as of 2000. Between 1990 and 2000, a total of 2,211 helicopter accidents were reported to and investigated by the NTSB (NTSB Helicopter Accident Study, June 2001). The NTSB analyzes helicopter operations in five different categories: general aviation, air taxi/commercial, rotorcraft external-load, agricultural, and unknown. Of the total, 164 accidents were reported over the ten-year period in the category of commercial helicopter operations, yielding an average of 16.4 accidents per year nationwide. Commercial uses include business, executive/corporate, or other work use. While emergency medical operations are not specifically categorized, the operations at UCLA Medical Center would correlate best to an air taxi/commercial use for purposes of this analysis. The ratio of 16.4 accidents per 10,000 helicopters per year in the United States is very small; therefore, the risk of accident from the maximum of six flights per week with the UCLA Medical Center would also be extremely remote. The campus will continue to comply with all regulations promulgated by the Federal Aviation Administration (FAA) for aircraft safety, which will further reduce potential safety hazards from emergency helicopter operations by using the flight path least impacting residential areas, whenever feasible. While the 2002 LRDP would result in an increase in the campus population during both the regular and summer sessions, thus exposing more persons to potential safety risks posed by helipad operations, the infrequency of helicopter arrivals and departures, along with the low rate of helicopter accidents nationwide and compliance with all FAA regulations related to aircraft and pilot safety, such as pilot training, aircraft inspection and certification, and air traffic control, would ensure that this impact is less than significant. No mitigation is required.

Threshold	Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Impact LRDP 4.6-8 **Implementation of the 2002 LRDP would not impair implementation of, or physically interfere with, an adopted emergency response or emergency evacuation plan. This is considered a *less-than-significant* impact.**

UCLA implements a Campus Emergency Response Plan that is disseminated campuswide and outlines procedures for all campus staff, students, and visitors to follow in case of an emergency. In addition, the campus has a Disaster Response Manual, which provides instructions and procedures for employees of Facilities Management and EH&S to follow in the event of an emergency, such as a hazardous materials release. UCLA has also developed a Disaster Initial Response Plan and Hazardous Materials Response Plan that cover a broad range of emergency situations related to both human-made disasters, such as bomb threats, and natural disasters, such as earthquakes. Multiple evacuation areas for major emergencies or disasters are also provided in each campus zone. In addition, both the City and County of Los Angeles have Emergency Contingency Plans that address emergency situations that could occur on the UCLA campus.

Construction and operation activities associated with development under the 2002 LRDP could potentially affect emergency response or evacuation plans due to temporary construction barricades or other obstructions that could impede emergency access on campus. However, as required by PP 4.6-8(a), multiple emergency access or evacuation routes are provided on-campus to ensure that in the event one roadway or travel lane is temporarily blocked, another may be utilized. Furthermore, ongoing coordination between the UCPD, LAFD, and UCLA pursuant to PP 4.6-8(b) ensures that roadway or travel lane closures will be coordinated with emergency response personnel to ensure that individual development projects under the 2002 LRDP would not impair implementation of, or physically interfere with, emergency response and evacuation efforts.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.6-8(a) *To the extent feasible, the campus shall maintain at least one unobstructed lane in both directions on campus roadways. At any time only a single lane is available, the campus shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway* *segment, the campus shall provide appropriate signage indicating alternative routes.* (This is identical to Traffic/Transportation PP 4.13-6.)

PP 4.6-8(b) *To ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, UCLA shall consult with the UCPD, EH&S, and the LAFD to disclose temporary lane or roadway closures and alternative travel routes.* (This is identical to Traffic/Transportation PP 4.13-9).

Following PP 4.6-8(a) and PP 4.6-8(b) ensures that impacts associated with emergency response or evacuation would remain less than significant by providing multiple emergency access or evacuation routes and coordinating roadway or travel lane closures with emergency response personnel. No mitigation is required.

4.6.4 Cumulative Impacts

The geographical context for the analysis of cumulative impacts from hazardous materials use, transport, and disposal is the City of Los Angeles, unless otherwise specified. This analysis accounts for all anticipated cumulative growth within this geographic area, as represented by full implementation of the City of Los Angeles General Plan Framework and development of the related projects in Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Environmental Analysis).

It is anticipated that future growth in the Los Angeles area will result in an incremental increase in the amount of hazardous materials used, treated, transported, and disposed areawide. Although each development site has potentially unique hazardous materials considerations, it is expected that future growth will generally comply with the range of federal, state and local statutes and regulations applicable to hazardous materials, and will be subject to existing and future programs of enforcement by the appropriate regulatory agencies. For these reasons, cumulative impacts resulting from the use, transport, and disposal of hazardous materials, or risk of upset from a release of hazardous materials, would be *less than significant*.

As discussed above under Impacts 4.6-1 and 4.6-3, the 2002 LRDP will not result in significant public hazards as a result of hazardous materials use, transport or disposal, or as a result of accidental release of hazardous materials. While the UCLA campus will continue to use varying amounts and types of hazardous materials (including chemical and bio-hazardous materials) in day-to-day activities and operations, the campus will continue to comply with all applicable laws and regulations concerning the use, storage, transportation, and/or exposure of hazardous materials, as well as with existing on-campus programs, practices, and procedures as required by PP 4.6-1, to reduce potential impacts for each project under the 2002 LRDP. Consequently, the contribution of the 2002 LRDP to cumulative impacts is also less than significant. This is considered to be a *less-than-significant* impact.

Cumulative effects of hazardous waste disposal (and the geographical area of impact) vary based upon the type of waste in question. Nonradioactive hazardous waste materials are disposed into readily available local permitted hazardous waste facilities, while radioactive waste is disposed of in facilities that accept radioactive waste generated nationwide. (Cumulative impacts from disposal of solid waste are evaluated in Section 4.14 [Utilities].) Disposal facilities accepting nonradioactive hazardous waste are not currently in short supply, and are not anticipated to be in short supply in the future, and thus cumulative impacts for nonradioactive hazardous waste would be less than significant. As discussed above, UCLA generates less than 0.01 percent of the total amount of nonradioactive hazardous waste generated in Los Angeles County. Therefore, the contribution of the 2002 LRDP to cumulative impacts associated with the use, storage, transportation, and/or exposure of nonradioactive hazardous materials would also be less than significant. This is considered to be a *less-than-significant* impact.

As discussed above, low-level radioactive waste (LLRW) must be disposed of in authorized facilities, which accept LLRW from a wide array of sources in addition to UCLA. UCLA currently generates only Class A waste, which is ultimately disposed of at the Envirocare facility in Toole, Utah. The Envirocare facility is not projected to close or within the planning horizon of the 2002 LRDP, and thus cumulative impacts associated with the disposal of Class A waste are expected to be *less than significant*.

LLRW that is classified as B or C is not currently generated on campus. However, the potential exists for the generation of some Class B waste in the future due to changes in medical or research activities. If Class B radioactive waste were to be generated in the future, it would be hauled to the Chem Nuclear System facility in Barnwell, South Carolina until 2008, when this facility will discontinue handling of out-of-state hazardous waste. It is probable that alternative disposal options would become available by that time (since facilities throughout the country require a disposal site for such waste), although specific disposal sites are currently unknown. As a result, cumulative impacts associated with the disposal of LLRW nationwide are anticipated to be *less than significant*.

However, with respect to the UCLA campus under the 2002 LRDP, in the event that no disposal options are available after 2008, the ESF provides secure storage space for long-term (seven to ten years or more) storage of Class B and C wastes. In the past three years the campus has produced no Class B or C waste. Prior to that time, when Class B or C waste was produced only 0.1% of the total radioactive waste volume generated in previous years on campus was Class B or C. Assuming that a similar potential generation of Class B and C waste could occur in the future, the ESF has the capacity to accommodate all

LLRW Class B and C waste volumes potentially produced by the campus through the planning horizon of the 2002 LRDP. Because the amounts of Class B and C waste that is or could be produced on campus is extremely small, and because the campus has the capacity to store Class B and C waste, the 2002 LRDP's contribution to potential impacts associated with the cumulative disposal of radioactive waste, both at present and in the future, is not cumulatively considerable. This is considered to be a *less-than-significant* impact.

It is possible that a number of the related projects and other future development in the City of Los Angeles will involve significant renovation demolition activity, which could subject construction workers to health or safety risks through exposure to hazardous materials, although the individual workers potentially affected would vary from project to project. It is anticipated that future development projects will adhere to the applicable federal, state and local requirements that regulate worker safety and exposure. As a result, cumulative impacts would be less than significant. As discussed under Impact 4.6-2, UCLA will continue to adhere to these applicable regulations, as well as established campus programs and practices, including the Asbestos Management Program and Lead Compliance program. As a result, the 2002 LRDP's contribution to cumulative impacts associated with potential exposure of construction workers to hazardous materials will be less than significant. This is considered to be a *less-than-significant* impact.

It is further possible that a number of the related projects and other future development in the City of Los Angeles could expose residents and construction workers to contaminated soil or groundwater. It is anticipated that future development projects will adhere to the applicable federal, State, and local laws and regulations that govern underground storage tanks and pesticide use, as well as requirements applicable to disposal and cleanup of contaminants. As a result, cumulative impacts would be less than significant. Although there is no known soil or groundwater contamination on the UCLA campus, in the event that soil or groundwater contamination is discovered, UCLA will continue to adhere to these regulations, as well as established campus programs and practices. See PP 4.6-4. As a result, the 2002 LRDP contribution to cumulative impacts associated with exposure to contaminated soil or groundwater would be less than significant. This is considered to be a *less-than-significant* impact.

Future development in the City of Los Angeles, including the related projects, may involve hazardous emissions or the handling of acutely hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school. It is anticipated that future development will comply with applicable laws and regulations pertaining to hazardous wastes, and that risks associated with hazardous emissions or materials to existing or proposed schools located within one-quarter mile of future development would be eliminated or reduced through proper handling, disposal practices, and/or clean-up procedures. Accordingly, cumulative impacts on schools associated with hazardous emissions or handling of hazardous materials are less than significant. As discussed under Impact 4.6-5, UCLA will comply with applicable hazardous materials and disclosure requirements and, in addition, will continue to implement the measures identified in PP 4.6-1. As a result, the 2002 LRDP contribution to cumulative impacts on schools associated with hazardous emissions or handling of hazardous materials within a quarter mile of an existing or proposed school would be less than significant. This is considered to be a *less-than-significant* impact.

Future development in the City of Los Angeles, including the related projects, may be located on or near a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. It is anticipated that future development will comply with applicable laws and regulations pertaining to hazardous wastes, and that risks associated with identified hazardous materials sites would be eliminated or reduced through proper handling, disposal practices, and/or clean-up procedures. In many cases, development applications for projects affected by hazardous materials on identified sites would be denied by the City of Los Angeles if adequate cleanup or treatment is not feasible. Accordingly, cumulative impacts on the public or environment associated with development on or near hazardous materials sites would be less than significant. As discussed under Impact 4.6-6, there are no listed contaminated soil or groundwater sites as listed pursuant to Government Code Section 65962.5 on campus. All previously leaking USTs on campus have been remediated and properly closed. All remaining USTs on campus conform to applicable laws and regulations and are registered and permitted by the LAFD. If future UST-related cleanup were determined to be necessary, all work would be performed in accordance with the guidelines of the Los Angeles Regional Water Quality Board Underground Storage Tank Program. All non-UST hazardous waste storage locations are managed in accordance with all applicable federal and State laws, such as RCRA and the California Hazardous Waste Control Law, as well as all existing campus programs, practices, and procedures described in Section 4.6.1 (Environmental Setting, Hazardous Materials Used On Campus) and Section 4.6.2 (Regulatory Framework). As a result, the 2002 LRDPs contribution to cumulative impacts associated with development on or near hazardous material sites would be less than significant. This is considered to be a *less-than-significant* impact.

Future development in the City of Los Angeles, including the related projects, may be located in the vicinity of a private airstrip, although most future projects will not be so located. The risk to each future development project posed by a private airstrip is based upon location, and is therefore unique. It is also likely that such risk, if sufficiently high, would be a factor in any decision to approve or deny future development proposals. As a result, cumulative risks to future development associated with proximity to private airstrips would be less than significant. As discussed under Impact 4.6-7, the UCLA Medical Center operates a heliport for the emergency transport of critically ill patients. Although future development would bring additional persons to the area, any risk of accident presented by flight operations at the UCLA Medical Center would be extremely remote and less than significant. This is considered to be a *less-than-significant* impact.

Finally, construction and operation associated with the related projects and other future development in the City of Los Angeles could result in activities that could interfere with adopted emergency response or evacuation plans, primarily by temporary construction barricades or other obstructions that could impede emergency access. It is anticipated that future development projects will undergo CEQA review of potential impacts on adopted emergency response or evacuation plans, and will be required to implement measures necessary to mitigate potential impacts. As a result, cumulative impacts relating to inference with adopted emergency response or evacuation plans would be less than significant. Construction and operation activities under the 2002 LRDP with respect to emergency response or evacuation plans due to temporary construction barricades or other obstructions that could impede emergency access on campus, are mitigated by MM 4.6-8(a). Multiple emergency access or evacuation routes are provided on-campus to ensure that in the event one roadway or travel lane is temporarily blocked, another may be utilized. Furthermore, ongoing coordination between the UCPD, LAFD, and UCLA pursuant to MM 4.6-8(b) ensures that roadway or travel lane closures will be coordinated with emergency response personnel to ensure that individual development projects under the 2002 LRDP would not impair implementation of, or physically interfere with, emergency response and evacuation efforts. As a result, the 2002 LRDP's contribution to cumulative impacts associated with inference with adopted emergency response or evacuation plans would be less than significant. This is considered to be a *less-than-significant* impact.

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4.7 HYDROLOGY AND WATER QUALITY

This section of the EIR describes existing hydrological and water quality characteristics on campus and in the vicinity of the campus and evaluates potential physical environmental effects related to flooding, drainage, groundwater dewatering, and groundwater and surface water quality. Impacts of the 2002 LRDP on existing and future water supply sources and wastewater treatment are described in Section 4.14 (Utilities and Service Systems). Issues related to potential exposure of construction workers to groundwater contamination are described in Section 4.6 (Hazards and Hazardous Materials).

Data used to prepare this section were taken from various sources, including the Los Angeles Water Quality Control Plan (Regional Water Quality Control Board 1995), Flood Insurance Rate Maps (Federal Emergency Management Agency 1980), previous environmental documentation prepared for the UCLA campus, and other campus data sources. Full bibliographic entries for all reference materials are provided in Section 4.7.5 (References) of this section.

A comment letter issued in response to the Notice of Preparation circulated for the project was received from the Southern California Association of Governments (SCAG). The comment letter requested that the EIR address the consistency of the 2002 LRDP with core water quality actions from the *Regional Comprehensive Plan and Guide* (RCPG). A discussion of the consistency of the project with applicable RCPG policies is provided in Impact LRDP 4.8-2 in Section 4.8 (Land Use).

4.7.1 Environmental Setting

Rainfall

The 30-year average annual rainfall at UCLA is 18.67 inches. However, because of large year-to-year differences in precipitation, the median rainfall amount of 15.75 inches best reflects annual expected rainfall (Murakami 2001).

Surface Water Drainage

Approximately 64 percent of the 419-acre campus consists of impervious surfaces (e.g., buildings, parking lots, roadways, and other paved areas). Because the majority of the runoff through the campus originates upstream of the campus, in the Stone Canyon watershed (a sub-watershed of the Ballona Creek watershed) stormwater runoff in campus storm drains is not affected to a substantial degree by slight increases in the percentage of impermeable surface area on the campus. An extensive campus storm drain system controls surface runoff as it enters the Los Angeles County storm drainage system.

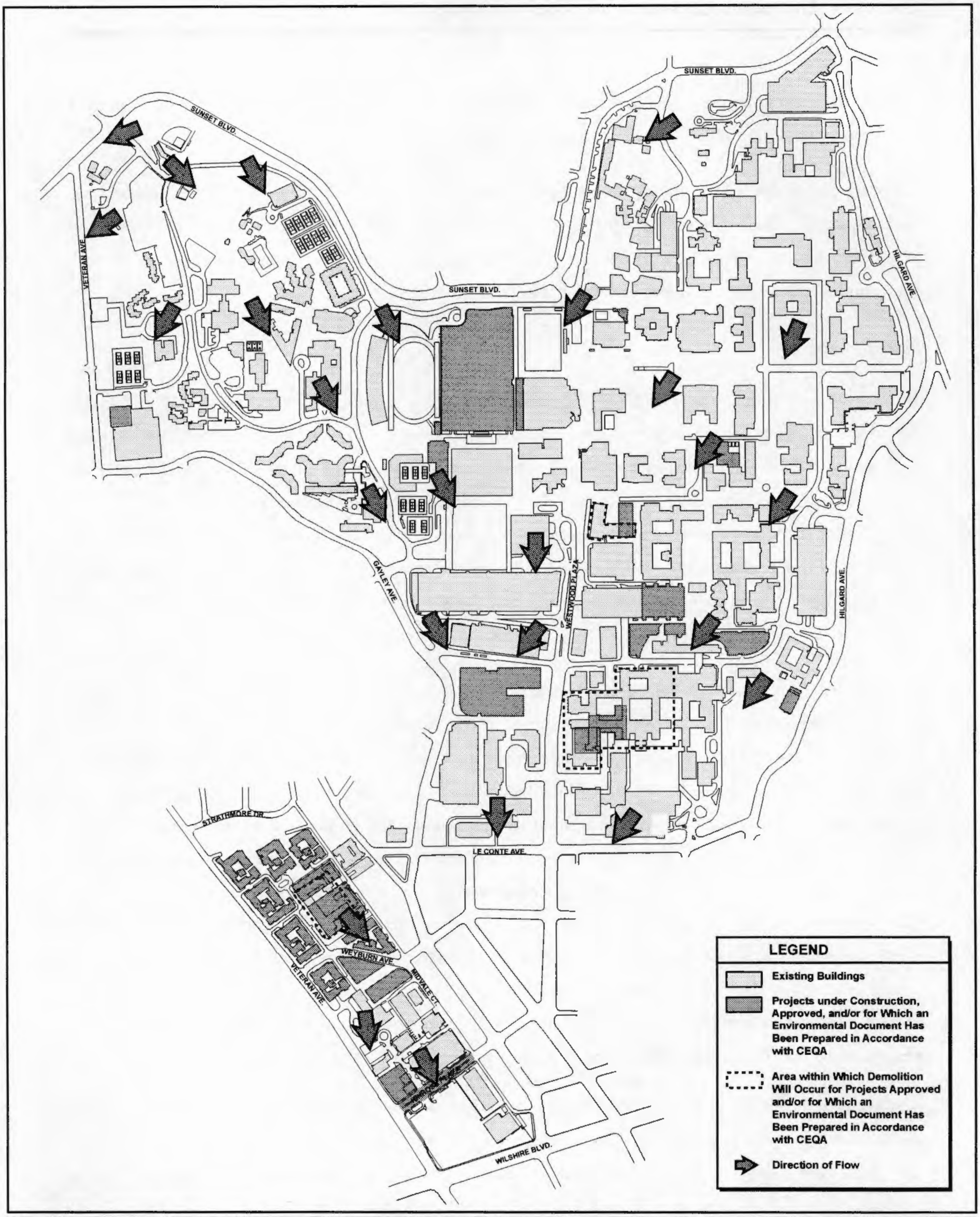
As illustrated by Figure 4.7-1 (Direction of Surface Runoff), drainage within the campus generally flows from the northeast and northwest sections of the campus to the south towards Le Conte Avenue. Runoff is collected by an existing campus stormwater drainage system maintained by the University. The major drainage course from the north is Stone Canyon Creek. Stone Canyon Creek conveys flow from the off-campus areas to the north through an underground box culvert. As the creek approaches campus, it flows as an open channel for a small section from Royce Drive to the Collins Executive Education Center, adjacent to the Corinne A. Seeds University Elementary School. At the Collins Executive Education Center, the creek continues its course through the campus via a 66-inch underground pipe that runs northwest to southwest.

All campus stormwater enters the Los Angeles City system via concrete structures at three locations: Gayley Avenue, Westwood Boulevard, and Hilgard Avenue. In the northwest and southwest portions of campus, some flows are also received by the City system on Veteran Avenue. The campus storm drains adequately handle runoff for the majority of rainfall events; however, at times, some locations on campus (Westwood Plaza and Stone Canyon Creek) experience temporary, limited shallow ponding and surface flow during major storm events, though this is primarily due to localized topography and drainage (UCLA Facilities Management 2002).

The City storm drain system, after carrying runoff from the campus and contributing upland areas, connects to the Los Angeles County system near Wilshire Boulevard. These flows are ultimately released into Ballona Creek in the vicinity of Culver Boulevard (UCLA 2001). Ballona Creek is a nine-mile-long flood protection channel that drains the Ballona Watershed portion of the Los Angeles Basin. The watershed is bounded by the Santa Monica Mountains on the north, the Harbor Freeway (SR-110) on the east, and the Baldwin Hills to the south, and discharges into the Santa Monica Bay. The watershed encompasses about 130 square miles and consists of 64 percent residential uses, eight percent commercial uses, four percent industrial uses, 17 percent open space, and 7 percent other uses. In addition to numerous storm drains, Centinela Creek, Sepulveda Canyon Channel, and Benedict Canyon Channel discharge into Ballona Creek (Los Angeles County Department of Public Works 2002; http://ladpw.org/wmd/watershed/bc/).

Stormwater Water Quality

Constituents found in typical urban runoff vary as a result of differences in rainfall intensity and occurrence, geographic features, the land use of a site, as well as vehicle traffic and percentage of impervious surface. The EPA estimates that short-term runoff from construction sites, without adequate



Not to Scale

SOURCE: UCLA

10328-07

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FIGURE **4.7-1**
Direction of Surface Runoff

UCLA 2002 LRDP

erosion and runoff control measures, can contribute more sediment to receiving waters than that deposited by natural processes over a period of several decades.

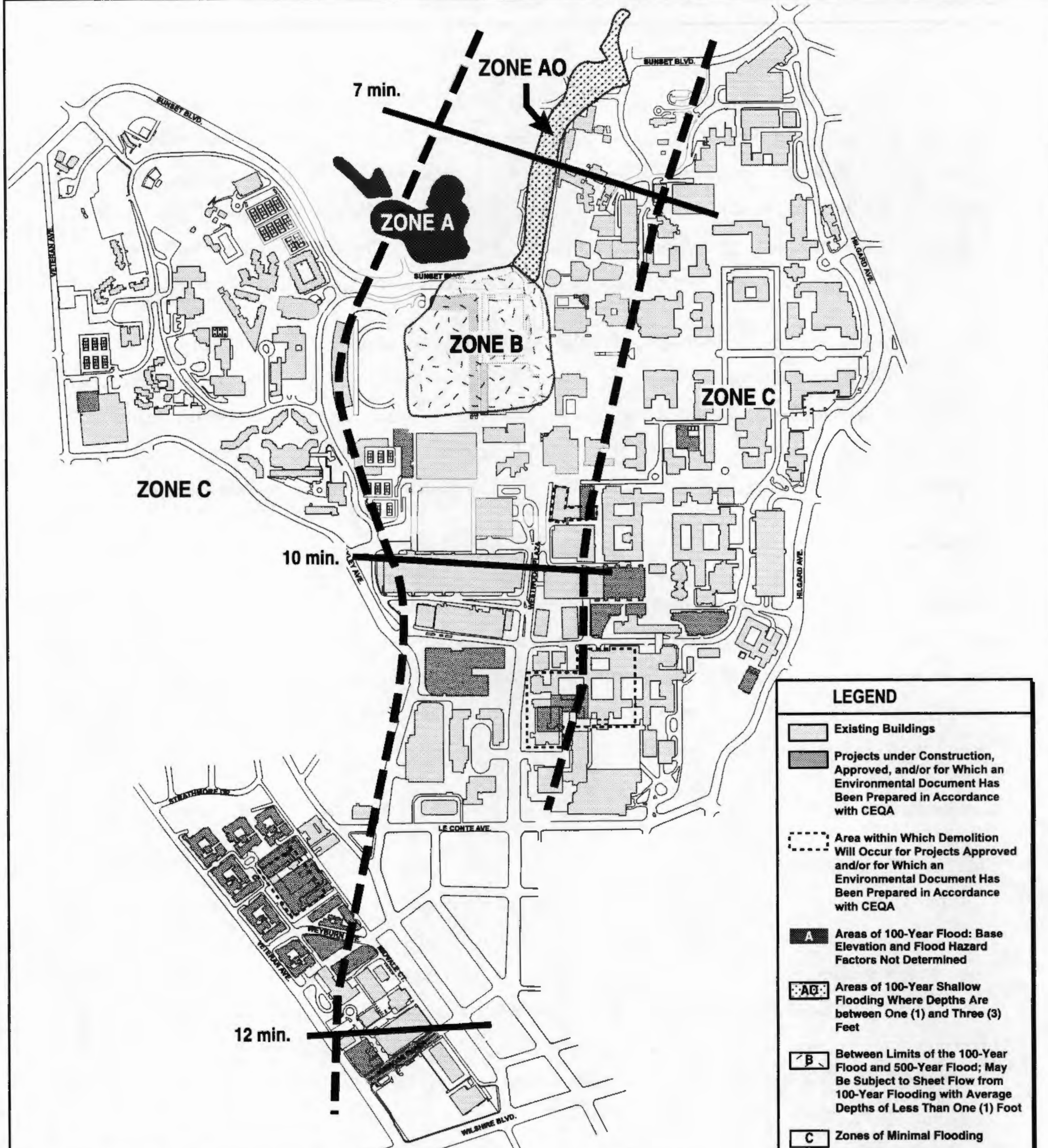
Campus stormwater quality is typical of most urban areas in that it includes a variety of common contaminants. These pollutants consist primarily of suspended sediments, limited fertilizers and pesticides used in grounds maintenance, and contaminants that are commonly associated with automobiles (e.g., oil, grease, and hydrocarbons) (UCLA 2001).

Flood Hazards

Flood Insurance Rate Maps (FEMA 1980) indicate that the Intramural Field, North Athletic Field, Wooden Recreation Center, Arthur Ashe Center, and Westwood Plaza are located in an area designated as Zone B, defined as an area with a flood potential between the limits of the 100-year and 500-year flood events. Zone AO, which is an area of 100-year shallow flooding between 1 and 3 feet, is located along Sunset Boulevard immediately north of the Corinne A. Seeds University Elementary School from Westwood Plaza to Royce Drive. The remainder of the campus is designated Zone C by the Flood Insurance Rate Map. This designation indicates that the site is outside of the 500-year flood zone, and flooding is expected to be minimal.

Additionally, as discussed in Section 4.5 (Geology and Soils), flood hazards exist that are associated with potential seismic-related failure of the Stone Canyon Reservoir, which is located north of the campus and is operated by the Los Angeles Department of Water and Power (LADWP). As shown in Figure 4.7-2 (Areas of Flood Hazard and Hypothetical Inundation), the UCLA campus is located in the hypothetical inundation path of the reservoir, should seismically induced or other failure of the earthen dam structure occur. The figure, which was developed as a result of computer modeling, illustrates the projected path of inundation in the event of a hypothetical, instantaneous, and complete breach of the Stone Canyon Dam structure, which assumes 100 percent failure of the structure. Flows from the reservoir could reach the north end of the campus within approximately seven minutes. However, due to the flexible nature of earthen dams, the structure would most likely crack gradually and fail slowly, rather than suddenly and catastrophically as modeled (Brodt 2002). Consequently, more advance warning could be provided to downstream uses in the event of an impending breach.

A study completed on April 25, 2002 by URS evaluated the seismic stability of the Stone Canyon dam and is currently under review by the State Department of Water Resources, Division of Safety of Dams. The study performed a state-of-the-art dynamic analysis that evaluated how the dam would perform in



NOTE: This graphic was developed as a result of computer modeling and illustrates the projected path of inundation in the event of a hypothetical, instantaneous, and complete failure of the Stone Canyon Dam structure. Flows from the reservoir could reach the north end of the campus within approximately seven minutes. However, due to the flexible nature of earthen dams, the structure would most likely crack gradually and fail slowly, rather than suddenly and catastrophically as modeled. Consequently, more advance warning than hypothesized here could be provided to downstream uses in the event of an impending breach.

Not to Scale

N

SOURCE: FIRM-FLOOD Insurance Rate Map, City of Los Angeles 10328-07

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FIGURE **4.7-2**
Areas of Flood Hazard and Hypothetical Inundation

the event of an earthquake and developed a computer model that also evaluated re-occurrence of the 1994 Northridge earthquake. The analysis predicted a higher deformation of the dam than actually occurred in 1994, which demonstrated the conservative nature of the model. Nonetheless, the study concluded that the dam structure of Stone Canyon Reservoir can withstand the maximum credible earthquake (magnitude 6.5) at the Hollywood Fault. According to the LADWP, a seismic-related or sudden, accidental breach of the dam structure is considered remote and speculative (Brodt 2002).

Additionally, LADWP performs daily surveillance and periodic security inspections of all LADWP reservoirs and dam structures to ensure the safety of the structures and the water they contain. No unauthorized personnel are allowed at the reservoirs, access has been limited, and surveillance includes several helicopter flights per day over the LADWP reservoir structures. According to LADWP, tampering with the structures and water has not occurred, and such an event is considered remote.

Mudflows

As described in Section 4.5.1 (Geology and Soils, Environmental Setting), a portion of the Northwest zone has been designated by the CDMG as an area of potential landslide hazard. During periods of heavy rainfall, inundation of areas of exposed soil that are subject to landsliding could result in mudflows. However, the majority of the Northwest campus zone is covered with landscaping and hardscape, and the likelihood of mudflows is considered remote.

Groundwater

The campus overlies the Santa Monica Groundwater Basin, which is located within the Santa Monica Plain (an alluvial apron formed at the southern edge of the Santa Monica Mountains). Generally, the Santa Monica Plain is underlain by water-bearing sediments of considerable thickness, and depth to groundwater measured for UCLA construction projects has ranged from approximately 28 to 53 feet below grade, with flow in a generally southerly direction (UCLA 1997; UCLA 2001). Primary sources of groundwater recharge into the Santa Monica Basin are (1) direct infiltration from precipitation, (2) subsurface flow from the Santa Monica Mountains, and (3) direct infiltration into the basin from irrigation (UCLA 1997).

Elevated levels of salinity and volatile organic compounds (VOCs) have been identified in the western portion of the Santa Monica Groundwater Basin. The degradation of water quality from either salt-water intrusion or the introduction of VOCs limits or affects the ability to use the groundwater resources available in the Santa Monica Basin. An investigation by the City of Santa Monica (1996) determined that historical land uses in the area, including industrial uses and municipal, commercial, and industrial dumps, have contributed to substantial VOC contamination throughout the Santa Monica Groundwater Basin. Although petroleum products, such as gasoline or diesel fuel, and inorganic compounds, such as lead or organic chemicals (including gasoline additives such as methyl tertiary-butyl ether [MTBE]), could be present in groundwater in the vicinity of the campus, there is no evidence of current groundwater contamination on the campus. The only recorded instances on the campus of contaminated soils or groundwater have resulted from leaking USTs, and all leaking USTs on the campus have been remediated and have received regulatory closure, as discussed in Section 4.6.3, Impact LRDP 4.6-4 (Hazards and Hazardous Materials, Project Impacts and Mitigation). No existing groundwater contamination within the campus area is known, and no existing cleanup work is necessary or now occurs.

4.7.2 Regulatory Framework

Federal

Clean Water Act

The Clean Water Act (CWA) was designed to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The CWA also directs states to establish water quality standards for all waters of the United States and to review and update such standards on a triennial basis. Other provisions of the CWA related to basin planning include Section 208, which authorizes the preparation of waste treatment management plans, and Section 319, which mandates specific actions for the control of pollution from nonpoint sources. The EPA has delegated responsibility for implementation of portions of the CWA to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB), including water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) Program.

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. Section 304(a) requires the EPA to publish water quality criteria that accurately reflects the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. Section 303(c)(2)(b) of the CWA requires states to adopt numerical water quality standards for toxic pollutants for which EPA has published water quality criteria and which reasonably could be expected to interfere with designated uses in a water body.

All projects resulting in discharges, whether to land or water, are subject to Section 13263 of the California Water Code and are required to obtain approval of Waste Discharge Requirements (WDRs) by the RWQCBs. Land- and groundwater-related WDRs (i.e., non-NPDES WDRs) regulate discharges of process and wash-down wastewater and privately or publicly treated domestic wastewater. WDRs for discharges to surface waters also serve as NPDES permits, which are further described below. The campus is not considered a point-source for regulatory purposes and, therefore, is not subject to non-NPDES WDRs.

State

Responsibility for the protection of water quality in California rests with the SWRCB and nine RWQCBs. The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and State water quality statutes and regulations. The RWQCBs develop and implement Water Quality Control Plans (Basin Plans) that consider regional beneficial uses, water quality characteristics, and water quality problems. The Los Angeles Basin Plan implements a number of federal and State laws, the most important of which are the State Porter-Cologne Water Quality Control Act and the Federal Clean Water Act.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the state (including both surface and groundwaters) and directs the RWQCB to develop regional Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative.

The Los Angeles Basin Plan specifically (1) designates beneficial uses for surface and ground waters, (2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy, and (3) describes implementation programs to protect all waters in the region. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Other criteria may be applied from SWRCB documents (e.g., the Inland Surface Waters Plan and the Pollutant Policy Document) or from water quality criteria developed under Section 304(a) of the Clean Water Act.

NPDES Permits

The NPDES permit system was established in the CWA to regulate both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. For point source discharges, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge; however, according to the UCLA Office of Environment, Health, and Safety (EH&S) the campus is not considered a point source for regulatory purposes and is not subject to WDRs. For nonpoint source discharges, the NPDES program establishes a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment to the maximum extent practicable (MEP). The NPDES program consists of (1) characterizing receiving water quality, (2) identifying harmful constituents, (3) targeting potential sources of pollutants, and (4) implementing a Comprehensive Stormwater Management Program.

The reduction of pollutants in urban stormwater discharge to the MEP through the use of structural and nonstructural Best Management Practices (BMPs) is one of the primary objectives of the water quality regulations. BMPs typically used to manage runoff water quality include controlling roadway and parking lot contaminants by installing oil and grease separators at storm drain inlets, cleaning parking lots on a regular basis, incorporating peak-flow reduction and infiltration features (such as grass swales, infiltration trenches, and grass filter strips) into landscaping, and implementing educational programs.

NPDES Phase I (General Construction Activity Stormwater Permit)

Phase I of the NPDES Program addresses stormwater runoff from (1) "medium" and "large" municipal separate storm sewer systems (MS4s), generally serving populations of 100,000 or greater; (2) construction activities disturbing 5 acres of land or greater; and (3) ten categories of industrial activities. With respect to the disturbance of five acres of land or greater from construction activities, the SWRCB issued one statewide General Construction Activity Stormwater Permit (on August 20, 1992) to apply to all construction activities. Landowners are responsible for obtaining and complying with the permit, but may delegate specific duties to developers and contractors by mutual consent. For construction activities, the permit requires landowners or their designated agent to

- Eliminate or reduce nonstormwater discharges to stormwater systems and other waters of the United States
- Develop and implement a Stormwater Pollution Prevention Plan
- Perform inspections of stormwater control structures and pollution prevention measures

The only component of Phase I of the NPDES Program that applies to UCLA is disturbance of 5 acres of land or greater, which addresses stormwater quantity and/or quality issues.

A Stormwater Pollution Prevention Plan (SWPPP) prepared in compliance with an NPDES Phase I Permit describes the project site, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and nonstormwater management controls. Dischargers are also required to inspect construction sites before and after storms to identify stormwater discharge from construction activity, and to identify and implement controls where necessary.

NPDES Phase II

New NPDES Phase II stormwater regulations were finalized and issued by the EPA in January 2000 in an effort to continue to preserve, protect, and improve the nation's water resources from polluted stormwater runoff. These new regulations are designed to implement programs to control urban stormwater runoff from additional MS4s in urbanized areas and the operations of small construction sites that were not already covered by Phase I NPDES permits. The main objectives of the Phase II regulations are to reduce the amount of pollutants being discharged to the maximum extent practicable and protect the quality of the receiving waters.

To meet this goal, the permittee must implement a Stormwater Management Program that addresses six minimum control measures, including (1) public education and outreach, (2) public participation/involvement, (3) illicit discharge detection and elimination, (4) construction site stormwater runoff control for sites greater than one acre (this is more stringent than NPDES Phase I, which required these controls for sites of five acres or greater), (5) post-construction stormwater management in new development and redevelopment, and (6) pollution prevention/good housekeeping for municipal operations. These control measures will typically be addressed by developing BMPs. UCLA will be required to apply for a Phase II permit by March 10, 2003, and must be in full compliance with the Phase II regulations (i.e., full development and implementation of a Stormwater Management Program) within five years of the date the permit is issued. The campus is now developing such a program for compliance with NPDES Phase II requirements as well as requirements for runoff control for construction sites greater than one acre.

4.7.3 Project Impacts and Mitigation

Analytic Method

Analyses of potential impacts to surface flows on the campus were assessed by reviewing available hydrological literature, identifying existing drainage patterns, quantifying existing impermeable surface area as a percentage of the total campus area, and quantifying the anticipated increase in impermeable surface area that would result from implementation of the 2002 LRDP to determine the anticipated increase in runoff volume. This data was then used to evaluate the potential for future development under the 2002 LRDP to modify drainage patterns and to increase runoff beyond the capacity of existing or planned campus storm drain facilities.

Impacts to surface and groundwater quality were analyzed by reviewing existing groundwater and surface water quality literature as it pertains to the campus, identifying existing on-campus ground and surface waters, including the depth to groundwater, and evaluating existing and potential sources of water quality pollutants based on the types of land uses and operational activities that occur on campus. Additionally, the applicability of federal and State regulations, ordinances, and/or standards to surface and groundwater quality of the campus and subsequent receiving waters was assessed. Potential impacts from implementation of the 2002 LRDP were determined by evaluating the potential of additional development to exceed the thresholds of significance outlined below.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines, unless otherwise noted. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on hydrology and water quality if it would result in any of the following:

- Violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site

- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects[11]
- Otherwise substantially degrade water quality
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map
- Place within a 100-year flood hazard area structures, which would impede or redirect flood flows
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam
- Expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow[12]

Effects Not Found to Be Significant

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

The Initial Study determined that implementation of the 2002 LRDP would not result in significant hydrological impacts from seiches or tsunamis. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. The closest enclosed basin to the UCLA campus is the Stone Canyon Reservoir; however, according to the LADWP, no seiche at a LADWP facility has ever been recorded, even during the Northridge Earthquake, and the LADWP does not consider seiches to be a potentially significant hazard. As such, significant inundation by seiches on the UCLA campus would not occur, and no additional analysis is required in this EIR.

A tsunami is a great oceanic wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance, such as tectonic displacement of the sea floor associated with large, shallow earthquakes. Since the UCLA campus is located approximately six miles northeast of the Pacific Ocean and at a sufficient elevation, the potential for tsunamis to affect the site is nonexistent. Therefore, inundation of the campus by a tsunami would not occur, and no additional analysis is required in this EIR.

[11] While this threshold of significance appears in Section XVI (Utilities and Service Systems) of Appendix G of the CEQA Guidelines, all impacts associated with storm drain capacity or stormwater quantity or quality are presented in this Section of the EIR.

[12] This threshold was modified to include the same introductory clause as the immediately preceding threshold.

Impacts and Mitigation

Threshold	Would the project violate any water quality standards or waste discharge requirements?

Impact LRDP 4.7-1 Implementation of the 2002 LRDP would not violate existing water quality standards or waste discharge requirements. This is considered a *less-than-significant* impact.

As stated above, the campus is not considered a point-source for regulatory purposes and is not subject to WDRs. While the campus has an industrial wastewater permit for wastewater discharge associated with the food service and laboratory uses on campus (as discussed in Section 4.14 [Utilities and Service Systems]), no hazardous waste is discharged into the sewer or storm drainage system on campus.

Development under the 2002 LRDP could result in an increase of impermeable surface area associated with new buildings and additional pavement, which would result in additional runoff (e.g., stormwater). Full implementation of the 2002 LRDP would result in a small increase in impervious surface area of approximately 100,500 square feet, or 0.85 percent of the existing impervious surface area on campus (Capital Programs Engineers 2002). Additionally, the majority (58 percent) of the flows through the campus that are discharged into the County storm drainage system originate upstream of the campus in the Stone Canyon watershed (Capital Programs Engineers 2002). According to the campus (Capital Program Engineers 2002), introduction of additional impervious surface area to the campus would increase by only 0.53 percent the volume of runoff generated by the campus over an 8- to 10-year period. Because the campus generates only 42 percent of the flows that run through the campus into the City system, the contribution of the 2002 LRDP to flows into the City and, ultimately, County systems would be 0.23 percent, calculated as 42 percent (the proportion of Stone Canyon watershed flows attributable to the campus alone) of 0.53 percent (the proportional increase of flows on the campus alone). The anticipated increase in stormwater flows is considered insignificant for the campus, City, or County storm drainage systems (Capital Programs Engineers 2002) and would not substantially contribute to operational erosion or sedimentation effects. New flows generated by increases in impermeable surface area will be directed to storm drains and would not discharge onto exposed soils.

The constituent pollutants entering the campus and City and County storm drain systems as a result of development under the 2002 LRDP would not change in character as a result of implementation of the 2002 LRDP. The campus proposes to develop additional academic, residential, and support uses that are substantially similar to existing campus uses and which would not contribute different types of pollutants than those now generated. In addition, slight decreases in some types of pollutants could also occur as surface parking lots are developed with academic uses. Impacts resulting from the use of hazardous materials are separately addressed in Impacts LRDP 4.6-1 and LRDP 4.6-3 provided in Section 4.6 (Hazards and Hazardous Materials).

The campus currently complies with, and would continue to comply with, NPDES Phase I (general construction permit) requirements and would be required to apply for a NPDES Phase II permit by March 10, 2003, based upon current information. Compliance with these statutes and regulations would ensure that storm water quality standards would not he violated by requiring discharges to continue to meet the requirements of the SWRCB and RWQCB, which would reduce the discharge of pollutants from construction sites. This impact would, therefore, be less than significant, and no mitigation is required.

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

Impact LRDP 4.7-2 **Implementation of the 2002 LRDP would not substantially deplete groundwater supplies or interfere with groundwater recharge. This is considered a *less-than-significant* impact.**

Currently, the UCLA campus utilizes water from the Los Angeles Department of Water and Power (LADWP), which relies on some local groundwater supplies. Consequently, implementation of the 2002 LRDP would result in additional development that could indirectly require an increased use of groundwater through the provision of potable water (by LADWP) to the campus. However, the provision of water, including increased use of groundwater supplies, if any, as a result of project implementation would be within the established demand projections of the LADWP (refer to Impact LRDP 4.14-2 in Section 4.14.2 [Utilities; Water Supply], as well as Appendix 10 of Volume 1 of this EIR for a supplementary analysis of water supplies, including groundwater). Further, the campus does not extract groundwater on an operational basis. Groundwater supplies with respect to the campus would be consumed according to the current plans and projections of the LADWP and would not, therefore, be substantially depleted as a result of implementation of the 2002 LRDP.

Implementation of the 2002 LRDP could also reduce the amount of pervious surfaces within the Santa Monica Groundwater Basin, which is partially overlain by the campus, through the addition of new buildings and paved areas. However, the campus is not designated as a groundwater recharge area, nor does the campus serve as a primary source of groundwater recharge within the Basin. Further, as described above, development under the 2002 LRDP is anticipated to result in an increase of less than 1 percent of the existing impervious surface area on the campus. Therefore, the addition of less than 1 percent of impervious surfaces within an area (the campus) that does not substantially recharge the 4,800-acre Santa Monica Groundwater Basin would not substantially interfere with groundwater recharge and is considered negligible.

Construction activities could require temporary dewatering of sites, but in such an event the campus would be required to obtain and comply with the conditions of a construction dewatering permit from the RWQCB, and operational dewatering is not anticipated for any project proposed under the 2002 LRDP. Even in this instance, however, such a disturbance would not constitute a substantial interference with groundwater recharge, as tbe campus does not serve as a primary source of groundwater recharge. Impacts relating to a reduction in groundwater recharge would be less than significant, and no mitigation is required.

Threshold	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?

Impact LRDP 4.7-3 **Implementation of the 2002 LRDP would not substantially alter site drainage patterns and would not result in substantial erosion or siltation on or off site. This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP could result in new buildings, landscaping, and/or other features on the campus that could result in minor alterations to existing drainage patterns of individual sites but not substantial alterations. Full implementation of the 2002 LRDP would convert less than 1 percent of the total campus area from softscape to hardscape. This is an increase that would not result in substantial changes to the broad drainage patterns of the campus, which are primarily dictated by topography, as shown in Figure 4.7-1. Current patterns of drainage do not cause substantial erosion or siltation as flows generated by new uses are, by design, directed immediately to the storm drain system. No stream or river course would be altered by implementation of the 2002 LRDP; Stone Canyon Creek is the only earthen drainage course on the campus, and no development proposed under the 2002 LRDP would alter this creek.

Altered drainage patterns at individual sites, including the replacement of permeable surfaces with impermeable surfaces, will not substantially increase runoff volume or rates of erosion due to the limited amount of impermeable surfaces that will be created. In addition, associated runoff could remove particles of soil from landscaped areas and re-deposit them in other portions of the campus, such as in the storm drain system. However, new development under the 2002 LRDP would, as described above, be required to comply with Phases I of NPDES and would be required to apply for a permit under Phase II of NPDES by March 2003. In compliance with NPDES, the campus would continue to implement BMPs with the following objectives, as defined in Chapter 3 of Construction Activity Best Management Practice Handbook (California Stormwater Quality Task Force [SQTF] 1993):

- **Practice good housekeeping.** Perform activities in a manner that prevents drainage or transport of potential pollutants by managing pollutant sources and modifying construction activities
- **Contain waste.** Dispose of all construction waste in designated areas and keep stormwater from flowing onto or off of these areas
- **Minimize disturbed areas.** Only clear land that will be actively under construction in the near term, minimize new land disturbance during the rainy season, and avoid disturbing sensitive areas or areas that would not be affected by construction
- **Stabilize disturbed areas.** Provide temporary stabilization of disturbed soils whenever active construction is not occurring on a portion of the site and provide permanent stabilization by finish grading and landscaping
- **Protect slopes and channels.** Outside of the approved grading plan area, avoid disturbing steep or unstable slopes, safely convey runoff from slopes, avoid disturbing natural channels, stabilize crossings, and ensure that increases in runoff velocity caused by the project do not erode the channel
- **Controlling the site perimeter.** Upstream runoff should be diverted around or safely conveyed through the project and should be free of excessive sediment and other constituents
- **Controlling internal erosion.** Detain sediment-laden waters from disturbed, active areas within the site

Implementation of appropriate BMPs as a part of compliance with NPDES Phases I and II would protect the quality of stormwater runoff by preventing runoff from construction sites and by ensuring that the quality of stormwater flows meets the applicable requirements of the RWQCB. This impact would be considered less than significant, and no mitigation is required.

Threshold	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

Impact LRDP 4.7-4 **Implementation of the 2002 LRDP would not substantially alter site drainage patterns or substantially increase the rate or amount of surface runoff and would not result in flooding either on or off site. This is considered a *less-than-significant* impact.**

As stated above, no development would occur that would alter Stone Canyon Creek, the only earthen drainage course on campus. As described above, full implementation of the 2002 LRDP is estimated to increase surface runoff by 0.53 percent over an 8- to 10-year period (Capital Programs Engineers 2002). This increase in flows is not considered substantial and would not, by itself, result in flooding or substantially alter site drainage patterns, particularly because, as described above, new flows would be directed to the campus storm drainage system. Additionally, Stone Canyon Creek, the only earthen stream course on the campus, would not be altered by implementation of the 2002 LRDP. However, construction activities and development of new buildings and/or features on campus associated with implementation of the 2002 LRDP could result in localized alterations of drainage patterns that might result in the temporary ponding on or off site. However, overall campus drainage patterns, as reflected in Figure 4.7-1 (Direction of Surface Runoff), are not anticipated to change during the planning horizon of the 2002 LRDP. Because the total increase in flows anticipated at full implementation of the 2002 LRDP would be about one half of one percent, which has been characterized by campus engineers as insignificant in relation to the capacity of the campus storm drainage system, no flooding is anticipated (Capital Programs Engineers 2002). Because no change to campus drainage patterns would occur as a result of implementation of the 2002 LRDP that would substantially increase the rate or amount of surface runoff in a manner than would result in flooding on or off campus, this impact would be less than significant. No mitigation is required.

Threshold	Would the project create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Impact LRDP 4.7-5 **Implementation of the 2002 LRDP would not result in runoff that exceeds the capacity of existing storm drain systems or provide substantial additional sources of polluted runoff. This is considered a *less-than-significant* impact.**

Development resulting from implementation of the 2002 LRDP would result in the construction of structures, streets, and other impermeable surfaces that would increase runoff to the storm drain system. However, according to calculations by the campus (Capital Programs Engineers 2002), development of the 2002 LRDP would increase the impermeable surface area on the campus by 100,500 square feet, or 0.85 percent, which would result in an increase of 0.53 percent in surface runoff. This increase would have an insignificant effect on the campus storm drain system (Capital Programs Engineers 2002). Additionally, because the majority (58 percent) of the existing runoff through the campus originates upstream of the campus (Psomas 2000), the percentage increase in the contribution of runoff by the campus into the City storm drain system would be less than half of the calculated increase on the campus, or about 0.23 percent, as described above in the discussion for Impact LRDP 4.7-1. This nominal increase in runoff would not constitute a substantial new source of polluted runoff, particularly with the campus implementation of a water quality monitoring program that complies with applicable provision of NPDES Phase II (refer also to Impact LRDP 4.7-1), nor would it exceed the capacity of the stormwater drainage system. Because the increase in runoff associated with development on the campus is negligible (about one half of one percent of campus flows), such discharges would not exceed the capacity of the drainage systems. A less-than-significant impact would occur, and no mitigation is required. Although additional runoff from development under the 2002 LRDP is not anticipated to exceed the capacity of the campus storm drainage system, PP 4.7-5 requires measures to upgrade and expand campus storm drain capacity where necessary, as well as the incorporation of design features to reduce runoff. Following PP 4.7-5 would further reduce this less-than-significant impact.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.1-2(d) *Projects proposed under 2002 LRDP shall include landscaping.*

PP 4.7-5 *Project design shall include measures to upgrade and expand campus storm drain capacity where necessary. Design of future projects will include measures to reduce runoff, including the provision of permeable landscaped areas adjacent to structures to absorb runoff and the use of pervious or semi-pervious paving materials.*

Following PP 4.7-5 would ensure that impacts remain less than significant by providing measures to reduce runoff in future project designs and extending the existing system to accommodate new development, when necessary, in conjunction with specific projects. No mitigation is required.

Threshold	Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Impact LRDP 4.7-6 **Implementation of the 2002 LRDP would not require the construction of new stormwater conveyance systems or the expansion of existing stormwater conveyance systems. This is considered a *less-than- significant* impact.**

Implementation of the proposed 2002 LRDP would increase the amount of impermeable surface on the campus, which would result in higher volumes of stormwater runoff. However, as described above in Impacts LRDP 4.7-1 and LRDP 4.7-5, the estimated project-related increase in stormwater flows to the campus drainage system would be about one-half of one percent, and the project-related increase in flows to the City storm drainage system is estimated to be less than one-quarter of one percent. As discussed in Impacts LRDP 4.7-1 and LRDP 4.7.5, implementation of the 2002 LRDP would not result in increased runoff that exceeds the capacity of the campus, City, or County storm drain system, and no new or expanded City or County facilities would be required. Increases in runoff would also be insignificant to campus storm drain systems. A less-than-significant impact would occur, and no mitigation is required. Implementation of the 2002 LRDP could include extensions of lines to serve specific project sites in association with specific projects. As provided by PP 4.7-5, the campus storm drain conveyance system will be upgraded, as necessary, with each new or expanded project proposed under the 2002 LRDP. However, no expansion of the capacity of campus storm drainage systems is anticipated to be required, and any extension of a portion of the system to serve a specific project would be evaluated as part of the environmental review process required under CEQA. This impact would, therefore, remain less than significant. No mitigation is required.

Threshold	Would the project otherwise substantially degrade water quality?

Impact LRDP 4.7-7 **Implementation of the 2002 LRDP would not otherwise substantially degrade water quality. This is considered a *less-than-significant* impact.**

The primary sources of potential water quality degradation have been addressed in Impacts LRDP 4.7-1, LRDP 4.7-3, and LRDP 4.7-5, and no other sources of water quality degradation are anticipated in association with implementation of the 2002 LRDP. Implementation of the 2002 LRDP would, therefore, not otherwise substantially degrade water quality, and this impact would be less than significant. No mitigation is required.

Threshold	Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Impact LRDP 4.7-8 **Implementation of the 2002 LRDP would not place housing within a 100-year flood hazard area. This is considered a *less-than-significant* impact.**

As shown in Figure 4.7-2 (Areas of Flood Hazard and Hypothetical Inundation), according to the current FIRM published by FEMA, a narrow strip of the campus along Sunset Boulevard and immediately north of the Corinne A. Seeds University Elementary School, running from Westwood Plaza to Royce Drive, is designated as Zone AO. Zone AO is an area of 100-year shallow flooding between one and three feet, where no hazard factor is determined. A portion of the campus consisting of the Intramural Field, North Athletic Field, Wooden Recreation Center, Arthur Ashe Center, and Westwood Plaza is located in an area designated as Zone B (a flood potential of between the 100- and 500-year events, but outside the 100-year floodplain [Eldridge 2002]), and the remainder of the campus is designated Zone C (outside the 500-year flood plain). Neither Zone B nor C has flood-related design requirements, and no new development would occur within Zone AO. Because implementation of the 2002 LRDP would not place housing within a 100-year flood hazard area, a less-than-significant impact would occur, and no mitigation is required.

Threshold	Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Impact LRDP 4.7-9 **Implementation of the 2002 LRDP would not place structures within a 100-year flood hazard area, which would impede or redirect flood flows. This is considered a *less-than-significant* impact.**

According to the current FIRM published by FEMA, a narrow strip of the campus along Sunset Boulevard and immediately north of the Corinne A. Seeds University Elementary School, running from Westwood Plaza to Royce Drive, is designated as Zone AO. Zone AO is an area of 100-year shallow flooding between one and three feet, where no hazard factor is determined. A portion of the campus consisting of the Intramural Field, North Athletic Field, Wooden Recreation Center, Arthur Ashe Center, and Westwood Plaza is located in an area designated as Zone B (a flood potential of between the 100- and 500-year events, but outside the 100 year floodplain [Eldridge 2002]), and the remainder of the campus is designated Zone C (outside the 500-year flood plain). Neither Zone B nor C has flood-related design requirements, and no new development would occur within Zone AO. Because development resulting from the 2002 LRDP would not place structures or redirect flood flows in the 100-year flood hazard zone, this impact would be less than significant, and no mitigation is required.

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Impact LRDP 4.7-10 **Implementation of the 2002 LRDP would not expose people or structures to a significant risk involving flooding due to the failure of Stone Canyon Reservoir. This is considered a *less-than-significant* impact.**

Stone Canyon Reservoir is located north of the campus across Sunset Boulevard and is operated by the City of Los Angeles Department of Water and Power (LADWP). As shown in Figure 4.7-2 (Areas of Flood Hazard and Hypothetical Inundation), the central portion of the UCLA campus is located in the hypothetical inundation path of the reservoir, should seismically induced or other failure of the earthen dam structure occur. The dam is subject to periodic inspection by State authorities and the LADWP. The LADWP Reservoir Surveillance Section performs daily surveillance and periodic security inspections of all LADWP reservoirs and dam structures to ensure the safety of the structures and the water they contain. No unauthorized personnel are allowed at the reservoirs, access has been limited, and surveillance includes several helicopter flights per day over the LADWP reservoir structures. According to LADWP, tampering with the structures and water has not occurred, and such an event is considered remote.

As in Section 4.7.1 (Environmental Setting, Flood Hazards), a recent study completed by URS evaluated the seismic stability of the Stone Canyon dam. The study performed a state-of-the-art dynamic analysis that evaluated how the dam would perform in the event of an earthquake and developed a computer model that also evaluated re-occurrence of the 1994 Northridge earthquake. The analysis predicted a higher deformation of the dam than actually occurred in 1994, which demonstrated the conservative nature of the model. Nonetheless, the study concluded that the dam structure of Stone Canyon Reservoir can withstand the maximum credible earthquake at the Hollywood Fault. (Refer to Section 4.5.1 [Geology and Soils, Environmental Setting] for additional discussion of nearby earthquake faults and earthquake magnitude.) According to the LADWP, a seismic-related or sudden, accidental breach of the dam structure is considered remote and speculative (Brodt 2002).

While a catastrophic failure of this structure could result in flooding in the central areas of the UCLA campus, which primarily consists of open playing fields, including the Intramural Field, the North Athletic Soccer Field, and Drake Track and Field Stadium, the possibility of failure due to seismic or other factors is considered by LADWP to be extremely remote and speculative, and this impact would, therefore, be less than significant. No mitigation is required.

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

Impact LRDP 4.7-11 **Implementation of the 2002 LRDP would not expose people or structures to a significant risk of mudflows. This is considered a *less-than-significant* impact.**

An area of the UCLA campus in the Northwest zone is identified by the California Department of Mines and Geology as potentially subject to landsliding, and could potentially represent a risk for mudflows during periods of heavy rainfall. However, no mudflows have ever been documented in this area, likely because the majority of the Northwest zone is covered with landscaping, naturalized vegetation, and hardscape, and the natural topography consists of gently sloping hillsides rather than steep, sheer embankments. Therefore, the potential for mudflows to occur would be considered remote, and engineering studies performed for campus projects would continue to ensure that slopes remain stable during and after construction of these projects. Further, implementation of the 2002 LRDP would not result in the long-term creation of bare, unstable slopes. As such, impacts associated with mudflows would be less than significant, and no mitigation is required.

4.7.4 Cumulative Impacts

The geographic context for the Hydrology and Water Quality cumulative impact analysis is the Ballona Creek watershed. This watershed consists of 130 square miles between the Santa Monica Mountains, the Harbor Freeway, and the Baldwin Hills. The geographic context also includes the Santa Monica Groundwater Basin, which underlies the project area and its vicinity. The analysis accounts for all anticipated cumulative growth within this geographic area, as represented by full implementation of the General Plan Framework (see Section 4.8 [Land Use and Planning] for definition and discussion) and development of the related projects provided in Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Environmental Analysis).

Cumulative development should not violate water quality standards or waste discharge requirements, and thereby will not result in a significant cumulative impact. The area that comprises the geographic context for this analysis consists of only 17 percent open space, with the remainder being used for urban land uses. In addition, much of the open space area is composed of parks, golf courses, and natural areas in the Santa Monica Mountains. Consequently, it is not expected that full implementation of the General Plan Framework would result in the conversion of large amounts of open space to urban uses, and it is therefore not expected that there will be a significant increase in runoff. Implementation of NPDES Phase I and II requirements should ensure that cumulative development does not result in higher than allowed concentrations of pollutants in stormwater discharges. Additionally, future development would be required to comply with sewage discharge laws and to obtain the proper permits. Further treatment at the Hyperion Treatment Plant, which is projected to have more than adequate capacity, will ensure that discharges into the ocean will not violate water quality standards. No significant cumulative impact is expected with regard to this potential impact. The 2002 LRDP contribution is also less than significant since only a very small amount of permeable surface is being removed, the type of pollutants contained in campus runoff would not change and the amount from surface parking lots could decrease, and because the campus will implement Phase I and II requirements related to water quality. This is considered to be a *less-than-significant* impact.

Continued development in the vicinity of the 2002 LRDP will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The 2002 LRDP sits atop the Santa Monica Groundwater Basin. LADWP, which supplies water to the City, does not pump water from this basin. Consequently, cumulative development in the City of Los Angeles will not adversely affect water levels or supplies in the Santa Monica Groundwater Basin. The LADWP pumps water from the San

Fernando, Sylmar, and Central Basins. All three of these basins have been adjudicated by the courts and have binding court orders that administer their usage. These court orders have been designed to maintain adequate water supplies and protect their integrity. LADWP pumping practices will be in conformity with these court orders and consequently will not result in substantial depletion in supplies and thus no cumulative significant impact is expected. The 2002 LRDP contribution is also less than significant since the campus does not pump its own groundwater but rather only receives water from LADWP, and LADWP's pumping practices are sustainable. Additionally, the campus is not designated as a recharge area and is not a primary area for recharge via natural percolation. This is considered to be a *less-than-significant* impact.

It is not expected that cumulative development would substantially alter the existing drainage pattern of the area, including through the alteration of the course of a stream or river, in such a manner which would result in substantial erosion or siltation, flooding, or the exceedance of existing or planned stormwater drainage systems. As mentioned previously, the Ballona Creek watershed is composed mainly of urban uses, with remaining open spaces being devoted to uses not likely to be developed. As a result, most of the drainage system in the watershed consists of engineered storm channels and therefore is expected to experience little change. Additionally, as extensive development is not expected in the remaining open spaces, it is unlikely that there will be substantial alteration of drainage systems and watercourses in those areas. This indicates that the amount of runoff will not substantially increase, thereby avoiding substantial increases in erosion, siltation, flooding, and preventing the exceedence of the stormwater drainage system. New development would also be required to comply with NPDES Phases I and II, and adopt BMPs to reduce the occurrence of erosion and siltation. As a consequence, it is not expected that there will be a cumulatively significant impact. The 2002 LRDP impact is also less than significant because the campus will implement all necessary measures required by NPDES Phases I and II, and because increases in the amount of runoff expected from the 2002 LRDP would be minimal. This is considered to be a *less-than-significant* impact.

Cumulative development is also not expected to result in or require the construction of new stormwater drainage facilities or the expansion of existing facilities, resulting in significant environmental effects. Extensive future development is not expected to take place in previously undeveloped areas, thereby necessitating the expansion or creation of stormwater drainage facilities. While future development may require that there be some localized modifications or additions to the existing stormwater drainage system, it is expected that these modifications or additions would not be extensive. Consequently, it is not expected that there will be a significant cumulative impact. As stated in the project-specific analysis, the 2002 LRDP contribution is also less than significant. The 2002 LRDP would result in an increase in run-off of one half of one percent on campus. While there may be some extensions of drainage systems to project sites under the 2002 LRDP, these extensions would be relatively minor, and would not result in significant environmental effects. This is considered to be a *less-than-significant* impact.

Full implementation of the General Plan Framework is not expected to otherwise substantially degrade water quality. Substantial increases in runoff are not expected to occur, and compliance with NPDES requirements and CEQA mitigation will ensure that water quality in the watershed is not degraded by future development. No cumulative significant impact is expected. Additionally, campus compliance with NPDES requirements and the small amount of runoff will insure that the 2002 LRDP contribution is also less than significant. This is considered to be a *less-than-significant* impact.

Cumulative development within the watershed would not result in the placement of housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, or the placement of structures within a 100-year flood hazard area which would impede or redirect flood flows. Applicable laws and regulations currently prevent the placement of housing and structures in these areas unless flood control improvements are made to eliminate the risk from 100-year floods. This cumulative impact is less than significant. Additionally, due to the fact that the 2002 LRDP will not place housing or structures within a 100-year flood hazard zone, the 2002 LRDP's contribution to this impact will be less than significant. This is considered to be a *less-than-significant* impact.

Cumulative development would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. The majority of the watershed consists of urban areas, with the remaining open areas not expected to significantly decrease in size in the future. Consequently, there would not be any increased danger of flooding due to increases in runoff. Additionally, although cumulative development could potentially result in increases in the number of people living in the potential inundation path of the Stone Canyon Dam, the catastrophic rupture of this earthen dam is considered remote and speculative and therefore cumulative development would result in a less-than-significant impact. The 2002 LRDP contribution is also less than significant, as the amount of runoff that the project would contribute would be negligible and would not pose a flooding risk and the risk resulting from the Stone Canyon Dam is also less than significant. This is considered to be a *less-than-significant* impact.

Cumulative development would not expose people to a significant risk of loss due to mudslides. Development would be subject to laws and regulations that are designed to prevent the exposure of people to the risk of significant loss due to mudslides. These measures include hillside ordinances, construction regulations, and CEQA review and mitigation. Consequently, this would not constitute a cumulatively significant impact. With regard to the 2002 LRDP contribution, development under the 2002 LRDP would comply with all applicable rules and regulations. Additionally, only a small portion of the campus may be subject to mudslides, the possibility of mudslides is considered remote due the presence of landscaping, natural vegetation, and hardscaping, and no landslide has been recorded. Future development would also utilize project-specific engineering studies and measures designed to avoid mudslide risks. This is considered to be a *less-than-significant* impact.

It should be noted that the City of Los Angeles General Plan Framework EIR came to the conclusion that "[f]urther urbanization of Los Angeles County will result in a continuing increase in stormwater runoff, water quality degradation and exposure of persons and property to floodplain hazards." However, for all of the reasons stated above, the contribution of the 2002 LRDP would nevertheless not be cumulatively considerable and is *less than significant*.

4.7.5 References

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4.8 LAND USE AND PLANNING

This section of the EIR describes existing land uses on campus and in the surrounding area and evaluates the potential for land use impacts associated with implementation of the proposed 2002 LRDP. The analysis focuses on the potential for the 2002 LRDP to result in impacts on existing and planned campus and adjacent community land uses and the relationship of these changes to relevant planning policies that guide land use decisions.

Data used in the preparation of this section was obtained from various sources, including UCLA staff, previous environmental documentation prepared for UCLA, and other campus data sources. Full bibliographic entries for all reference materials are provided in Section 4.8.5 (References) of this section.

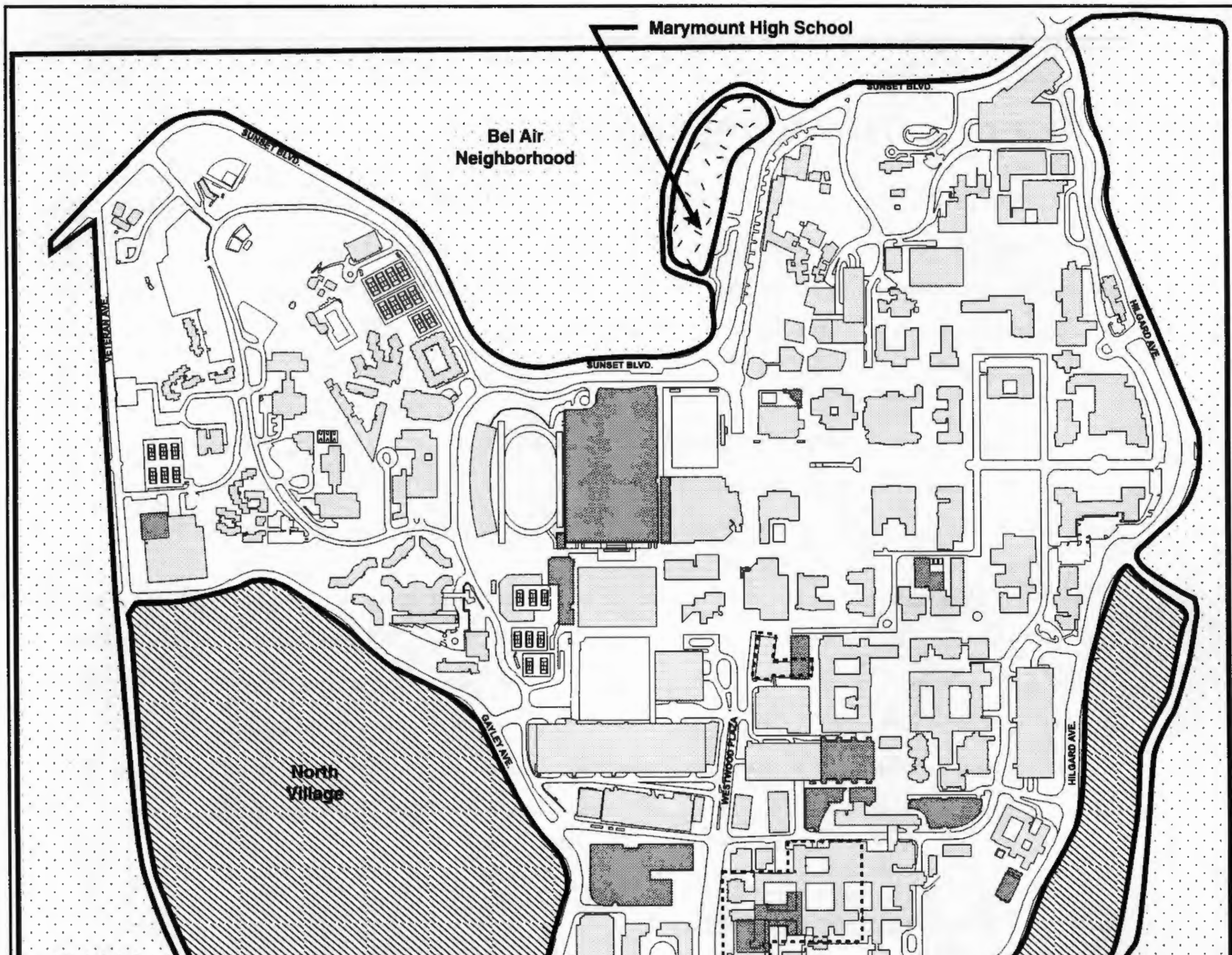
A comment letter issued in response to the Notice of Preparation circulated for the project was received from the Southern California Association of Governments (SCAG). This comment letter requested that the EIR address the consistency of the 2002 LRDP with key policies of the Growth Management chapter of SCAG's *Regional Comprehensive Plan and Guide* (RCPG), particularly those policies aimed at encouraging patterns of land use that reduce infrastructure construction costs and the development of urban forms that enhance the regional standard of living, the regional quality of life, and social, political, and cultural equity.

4.8.1 Environmental Setting

The LRDP adopted in 1990 (1990 LRDP) is a comprehensive land use plan that guides the physical development of the campus to serve its teaching, research, and public service mission. In general, the 1990 LRDP (1) provides a land use map to guide the siting of future campus facilities, (2) estimates the net building space required to achieve the campus academic and research goals, and (3) articulates planning principles (or LRDP objectives) to guide the physical planning process. The 1990 LRDP considered a 15-year planning period with a horizon year of 2005–06. The proposed 2002 LRDP will extend the plan horizon year to 2010–11 while maintaining the proposed total development allocation, vehicle trip levels, and parking levels articulated in the 1990 LRDP.

Surrounding Land Uses

A variety of land uses surround the campus, as illustrated by Figure 4.8-1 (Surrounding Land Uses). Immediate land uses surrounding the campus are as follows:



Not to Scale

SOURCE: UCLA

10328-07

EIP ASSOCIATES

FIGURE **4.8-1**

Surrounding Land Uses

UCLA 2002 LRDP

- *North*—North of the campus is the Bel Air single-family residential neighborhood and Marymount High School
- *South*—South of Le Conte Avenue is the commercial district of Westwood Village, which consists of retail shops, movie theaters, restaurants, and office buildings
- *East*—East of Hilgard Avenue are sorority houses, apartment buildings, and the Holmby-Westwood single-family residential neighborhood
- *West*—West of Gayley Avenue is the North Village multi-family residential neighborhood, which primarily consists of fraternity houses and apartment buildings. West of Veteran Avenue is the Westwood Hills single-family residential neighborhood and the Los Angeles National Cemetery.

The majority of new development expected in the area will likely be small in scale, unless parcels are assembled and existing buildings are demolished. The nearest large parcel in the Westwood area is the Veterans Administration grounds. While there has been discussion of various development proposals at the Veterans Administration property over the last few years, no specific development projects have been proposed or are currently being evaluated, and the inclusion of any additional development on the cumulative projects list for the 2002 LRDP would be speculative at this time. Projects in the vicinity of the UCLA campus that are either under construction, currently approved, have applications pending with the City of Los Angeles Planning Department (as of January 2002), or are reasonably foreseeable are described in Table 4-1 (Off-Campus Related Projects) in Chapter 4 (Environmental Setting, Impacts, and Mitigation).

Existing Campus Land Use

As shown in Figure 3-1 (Regional Map) in Chapter 3 (Project Description), the UCLA campus is located in the community of Westwood in the City of Los Angeles, approximately 12 miles northwest of downtown Los Angeles and 6 miles east of the Pacific Ocean. The UCLA campus is bounded by Le Conte Avenue to the south, Gayley Avenue and Veteran Avenue to the west, Sunset Boulevard to the north, and Hilgard Avenue to the east (see Figure 3-2 [Project Site]). An additional area of the campus, known as the Southwest campus, is located immediately north of Wilshire Boulevard generally between Gayley Avenue and Veteran Avenue. The campus is primarily surrounded by residential land uses, with the exception of the Westwood Village commercial area to the south and a section of the Los Angeles National Cemetery to the west.

The approximately 419-acre campus has been developed with a variety of academic and related uses, with facilities dedicated to instruction, research, support functions, recreation, medical uses, and housing. A more detailed map, showing the campus land use zones in the context of the overall campus, as well as the 2001 built environment, is provided by Figure 4.8-2 (LRDP Land Use Zones). The existing built environment and land uses contained in each of the existing eight land use zones are described below.

Botanical Garden Zone

The 7-acre Botanical Garden zone is bounded by Tiverton Drive to the west, the southern portion of Core Campus zone to the north, Hilgard Avenue to the east, and Le Conte Avenue to the south. The Mildred E. Mathias Botanical Garden (Botanical Garden), which is open to the public, is the primary land use in the zone. However, construction of a greenhouse facility (Plant Physiology Replacement Building) in the area previously designated as the experimental garden area in the zone is presently underway.

Bridge Zone

The 5-acre Bridge zone forms a physical connection between the main campus zones and the Southwest zone and contains a mixture of uses. The Bridge zone consists of the Ueberroth Building (that accommodates Health Sciences administrative and research support units) on Le Conte Avenue, the University Extension Building, student and faculty apartments on Levering Avenue, and an open landscaped area on the corner of Gayley Avenue and Le Conte Avenue.

Campus Services Zone

The Campus Services zone, which is approximately 15.3 acres, is bounded by Westwood Plaza to the east, Strathmore Place to the north, Gayley Avenue to the west, and Charles E. Young Drive South to the south. Land uses in this zone include the Energy Systems Facility, parking, facilities management shops and offices, the Environmental Services Facility, the campus fleet services yard, and the Strathmore Building.

Central Zone

The 61.5-acre Central zone is located between the Core Campus zone and the Northwest zone, bounded by Sunset Boulevard to the north and Strathmore Drive to the south. The Central zone contains most of the campus recreational and athletic facilities and playing fields, as well as student activity centers and underground parking. Three projects currently under construction and/or approved with construction pending in this zone are the Intramural Field Parking Structure, the Wooden West addition, and expansion of the Acosta Athletic Training Facility.

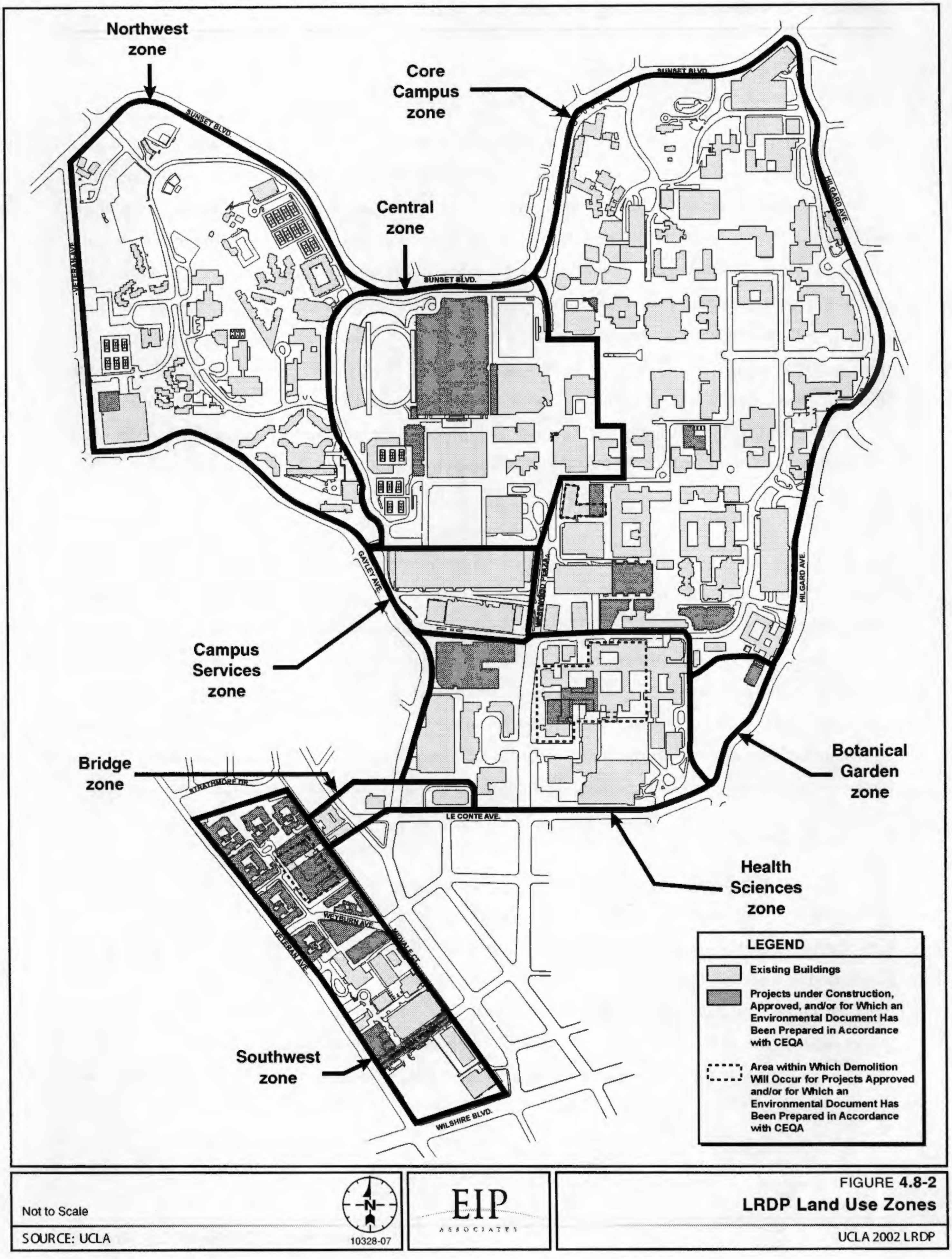


FIGURE 4.8-2
LRDP Land Use Zones

Core Campus Zone

The Core Campus zone, which totals 158 acres, contains the campus historic core, featuring the original campus buildings and associated open areas. It also accommodates the primary academic, research, library, and administrative facilities of the campus. The Core Campus zone is bounded by the Central and Campus Services zones to the west, Sunset Boulevard to the north, Hilgard Avenue to the east, and Charles E. Young Drive South and the Botanical Garden and Health Sciences zones to the south. Land uses in this zone include instructional and research programs, campus administration, cultural facilities, parking, and many plazas, courtyards, and gardens. Projects currently under construction and/or approved with construction pending in this zone are the Physics and Astronomy Building, Health Sciences Seismic Replacement Buildings 1 and 2, the Luck Research Center and Related Facilities, small additions to the Broad Art Center and Kaufman Hall (in conjunction with their seismic renovation), the California NanoSystems Institute Building, and a Replacement Building for Engineering 1.

Health Sciences Zone

The Health Sciences zone, which is approximately 46.8 acres, is bounded to the west by Gayley Avenue, to the north by Charles E. Young Drive South, to the east by the Botanical Garden and Core Campus zones, and to the south by Le Conte Avenue. Existing land uses within this zone include the Medical Center, the health sciences professional schools, medical laboratory and research facilities, the UCLA Medical Plaza outpatient facilities, and parking. The Academic Health Center Replacement Hospital is currently under construction in this zone. Planned projects (approved and/or analyzed in an environmental document prepared in accordance with CEQA) include Health Sciences Seismic Replacement Building 3 and the eventual demolition of portions of the Center for the Health Sciences.

Northwest Zone

The 90.5-acre Northwest zone is the primary residential area of campus. It is bounded by Veteran Avenue to the west, Sunset Boulevard to the north, Charles E. Young Drive West to the east, and Gayley Avenue to the south. The Northwest zone primarily includes residential facilities and support functions for undergraduate students. Other land uses include a Child Care Center, the Southern Regional Library Facility, Tom Bradley International Hall, the Sunset Canyon Recreation Center, and other recreational uses. A third phase of development for the Southern Regional Library of approximately 65,100 gsf has been analyzed in a certified EIR, with an implementation timeframe as yet undetermined.

Southwest Zone

The 35.5-acre Southwest zone is bounded by Veteran Avenue and the Los Angeles National Cemetery to the west, private residences to the north, Midvale Court (an alley) to the east, and Wilshire Boulevard to the south. Approximately one-third of the Southwest zone is occupied by surface parking lots and one parking structure. This zone accommodates a mixture of uses and facilities, including the Taper Center, Warren Hall, the Rehabilitation Center, the West Medical Building, the Capital Programs Building, the Science and Technology Research Building, the Kinross Building, the Campus Transit Yard, and a steam plant. The Southwest Campus Housing and Parking Project, which is currently under construction in this zone, will provide 2,000 beds of graduate student housing, associated parking, and informal recreational open space in two phases of construction. The project includes demolition of the Taper Center in Phase 1, which is currently underway, and demolition of Warren Hall in Phase 2, as well as development of the project components. Extension of Kinross Avenue across Parking Lot 32 to provide public vehicular access between Gayley and Veteran Avenues is also a component of the Southwest Campus Housing and Parking Project.

The 1990 LRDP and Amendments

Table 4.8-1 (2001–02 Built Environment by Zone) identifies the built environment as of the 1990 LRDP baseline year (2001–02), allocated by campus zone, and the total square footage that has either been developed, is under construction, has been approved, or for which an EIR has been certified, also allocated by campus zone.[13] As this table indicates, approximately 2.00 million gsf of the total development allocation of 3.71 million gsf under the 1990 LRDP has been developed, approved, and/or analyzed in an environmental document prepared in accordance with CEQA.

Table 4.8-2 (Development Allocations by LRDP Zone, 1990 to 2001–02 [in gsf]) summarizes the 1990 LRDP development allocations, all transfers that have occurred between zones, the resulting total development allocation by zone, development since 1990 (including projects that have been constructed, are under construction, have been approved, and/or for which an environmental document has been prepared in accordance with CEQA), and a summary of the remaining allocation by zone in 2002. The remaining development allocation under the 1990 LRDP is approximately 1.71 million gross square feet.

[13] Refer to Appendix B of the 2002 LRDP for a comprehensive summary of each of the projects that comprise the baseline built environment, which includes existing development, projects under construction, and projects that have been approved and/or for which an environmental document has been prepared in accordance with CEQA.

Table 4.8-1 2001–02 Built Environment by Zone (in gsf)

Zone	1990 Built Environment[1]	Development between 1990 and 2001–02[2]	Total Development as of 2001–02[2]
Botanical Garden	0	19,100	19,100
Bridge	330,600	0	330,600
Campus Services	220,875[3]	190,125	411,000
Central	873,100	203,975	1,077,075
Core Campus	6,121,713	803,567	6,925,280
Health Sciences	3,310,192	-206,192[4]	3,104,000
Northwest	2,165,179	0	2,165,179
Southwest	361,540	992,960	1,354,500
Total	***13,383,199***	***2,003,535***	***15,386,734***

1. Excludes parking structure gsf
2. Excludes parking structure gsf and includes projects that have been constructed, are under construction, and projects that have been approved and/or for which an environmental document has been prepared in accordance with CEQA.
3. Adjusted number to reflect boundary line change between Campus Services and Health Sciences zones
4. Represents net square footage from demolition and construction of replacement hospital

Source: UCLA Capital Programs, 2002

Table 4.8-2 Development Allocations by LRDP Zone, 1990 to 2001–02 (in gsf)[1]

	Allocations Under 1990 LRDP, as Amended			Development Since 1990				
Zone	1990 Allocation	Total 1990–2001 Zone Transfers	Amended Allocation[2]	Built	Under Construction[3]	EIR Certified and/or Approved[3]	Total Development 1990-2001	Remaining Allocation
Botanical Garden	0	19,100	19,100	0	19,100	0	19,100	0
Bridge	25,000	0	25,000	0	0	0	0	25,000
Campus Services	155,000	35,125	190,125	190,125	0	0	190,125	0
Central	125,000	78,975	203,975	134,025	3,600	66,350	203,975	0
Core Campus	900,000	207,000	1,107,000	193,125	207,562	402,880	803,567	303,433
Health Sciences	700,000	-226,100	473,900	15,900	1,006,503	-1,228,595	-206,191[4]	680,092
Northwest	5,000	0	5,000	0	0	0	0	5,000
Southwest	1,800,000	-114,100	1,685,900	110,960	0	882,000	992,960	692,940
Total	***3,710,000***	***0***	***3,710,000***	***644,135***	***1,236,765***	***122,635***	***2,003,535***	***1,706,465***

1. Net new (less demolition) gross square feet (gsf).
2. Reflects square footage transfers among zones from LRDP Amendments that occurred between 1990 and 2001, as follows: Botanical Garden, +19,100; Campus Services, +35,125; Central, +78,975; Core, +207,000; Health Sciences, -226,100; and Southwest, -114,000.
3. Reflects square footage of projects under construction, and/or approved for construction or demolition, and/or for which an environmental document has been prepared in accordance with CEQA.
4. Represents net square footage from demolition and construction of replacement hospital

Source: UCLA Capital Programs, 2002

2002 LRDP Development Allocations

The primary objective of the 2002 LRDP, which is the establishment of a land use plan that represents the best possible relationship among UCLA academic goals, faculty and student needs, site characteristics, and integration with the surrounding community, remains the same as in the previous LRDPs approved by The Regents in 1963, 1983, and 1990. The 2002 LRDP retains the basic land use designations of the 1990 LRDP (including academic, recreational, residential, health sciences, and other land uses) contained in the same eight land use zones envisioned in the 1990 LRDP. Space allocations in the campus land use zones serve as "capacity envelopes" sized to accommodate projected needs within the planning horizon of the 2002 LRDP. The use of these capacity envelopes is intended to provide future flexibility, accommodate changes in program space requirements, and to respond to needs and circumstances that are not currently anticipated.

While the total proposed development allocation will remain the same under the 2002 LRDP, the 1.71 million gsf remaining under the 1990 LRDP will be reallocated as shown in Table 4.8-3 (2002 LRDP Development Allocations by Zone). The proposed reallocation is intended to accommodate the evolving campus program needs and program growth resulting from the planned enrollment increase.

Table 4.8-3 2002 LRDP Development Allocations by Zone

Zone	1990 LRDP Remaining Allocation	2002 Proposed Allocation (gsf)
Botanical Garden	0	0
Bridge	25,000	175,000
Campus Services	0	20,000
Central	0	5,000
Core Campus	303,433	457,465
Health Sciences	680,092	269,000
Northwest	5,000	570,000
Southwest	692,940	210,000
Total	***1,706,465***	***1,706,465***

Source: UCLA Capital Programs, 2002

While the 2002 LRDP identifies the amount of development anticipated within each campus land use zone, the allocations are subject to forecasting uncertainty and other unforeseen circumstances. Therefore, in order to balance the specificity required for the planning and environmental analysis with the flexibility needed to accommodate future development, each of the proposed development allocations by zone will be permitted to vary by up to 30,000 gsf over the LRDP planning horizon, without requiring an amendment to the LRDP, so long as (1) additional square footage (up to 30,000 gsf) needed in a particular zone is balanced by a subtraction of the same amount of square footage from one or more of the other zones, (2) the Botanical Garden zone allocation would not change, and (3) any proposal would be consistent with the 2002 LRDP development objectives and CEQA. For example, up to 30,000 gsf could be reallocated to the Core Campus zone by reducing the allocation from one or more other campus zones by an equivalent 30,000 gsf. By adhering to these conditions, the overall campus development will remain within the proposed 1.71 million gsf for the duration of the 2002 LRDP.

4.8.2 Regulatory Framework

Federal

There are no federal land use regulations applicable to the 2002 LRDP.

State

Executive Order D-16-00—Sustainable Building Goal

While not mandatory, the University of California has been encouraged to comply with the advisory provisions of Executive Order D-16-00, which became effective August 2, 2000, to establish a State sustainable building goal. Specifically, the sustainable building goal is to "site, design, deconstruct, construct, renovate, operate, and maintain State buildings that are models of energy, water, and materials efficiency, while providing healthy, productive, and comfortable indoor environments and long-term benefits to Californians." Such an approach is designed to treat an entire building as one system, recognizing that individual building features, such as lighting, windows, heating and cooling systems, and control systems, work as an inter-connected system.

Local

Stipulated Use Agreement

A Stipulated Agreement of Compromise (Agreement) was filed February 6, 1978, pursuant to the case of *Westwood Hills Property Owners Association vs. The Regents of the University of California,* et al. (Los Angeles Superior Court Case No. C180760). This Agreement defines a Benign Use Zone in the Northwest zone of campus that will be reserved for uses that include, but are not limited to, open green space, landscape buffer zones, existing ornamental horticultural buildings and parking facilities, and low-intensity, nonspectator, recreational and athletic space. The Benign Use Zone excludes, among other things, consideration of a baseball facility in this area. Lighting for this area will be provided only as appropriate to, and in keeping with, the benign uses. No access to the campus from existing City streets adjacent to the Benign Use Zone will be provided or permitted except for emergency purposes. The Benign Use

Zone extends from Bellagio Drive and Sunset Boulevard to the north, De Neve Drive to the east (until Hedrick Hall where the eastern boundary extends due south to Gayley Avenue near Landfair Avenue), Gayley Avenue to the south, and Veteran Avenue to the west.

Further provisions of the Agreement call for the campus to examine the potential for construction noise and to take necessary steps, within practical technological capabilities and consistent with normal building practices, for wood frame construction to ensure compliance with local noise ordinances and regulations and to reduce construction noise to the maximum extent feasible. Noise-producing construction work is to be prohibited prior to 7:00 A.M. Monday through Friday, 8:00 A.M. on Saturday, and throughout the day on Sundays and national holidays, except for emergencies.

The Northwest Housing Infill Project (NHIP), proposed in the Northwest zone of campus, is consistent with the Agreement. A detailed discussion of the consistency of the NHIP with the provisions of the Agreement is provided in Impact NHIP 4.8-1 provided in Section 4.8 (Land Use and Planning) in Volume 2 of this EIR. In addition, Figure 3-2 (Existing Conditions: Northwest Zone), which is provided in Volume 2 of this EIR, depicts the limits of the Benign Use Zone.

4.8.3 Project Impacts and Mitigation

Analytic Method

The analysis in this section focuses on the compatibility of land uses identified in the 2002 LRDP with existing and planned land uses within and adjacent to the campus, as well as consistency with any applicable land use plans, policies, or regulations. In addition, this analysis also describes the proposed reallocation of remaining gross square footage by campus zone.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines, except where noted. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on land use if it would result in any of the following:

- Result in land use incompatibilities between campus development and adjacent community land uses[14]
- Physically divide an established community

[14] This threshold is not included in Appendix G and was added to specifically address the compatibility of land uses in the 2002 LRDP with adjacent land uses.

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

Effects Not Found to Be Significant

Threshold	Would the proposed project physically divide an established community?

The LRDP is the campus land use plan that guides future development only within the campus boundaries. Therefore, the Initial Study concluded that no effects related to the division of an established community would occur, and that no additional analysis would be required.

Threshold	Would the proposed project conflict with any applicable habitat conservation plan or natural community conservation plan?

The UCLA campus is not located within an area governed by an adopted Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, the Initial Study concluded that no analysis of the consistency of the 2002 LRDP with any such plan would be required in this EIR.

Impacts and Mitigation

Threshold	Would the proposed project result in land use incompatibilities between campus development and adjacent community land uses?

Impact LRDP 4.8-1 **Implementation of the 2002 LRDP would not result in potential incompatibilities between campus development and adjacent land uses. This is considered a *less-than-significant* impact.**

The 2002 LRDP proposes development of the remaining 1.71 million gsf previously allocated under the 1990 LRDP; this represents an 11.1 percent increase over the existing campus built environment of approximately 15.4 million gsf (including projects constructed, under construction, approved projects, and/or for which an environmental document has been prepared in accordance with CEQA). The UCLA campus is located within the context of a highly developed urban area and has grown in a manner consistent with the general urbanization of the region. Furthermore, development on the UCLA campus has utilized limited land resources wisely through the provision of conjunctive uses, such as the provision of underground parking structures with recreational fields above and by the provision of denser development and creative use of open areas to limit the overall development footprint. While the campus has experienced land use intensification within its borders, this type of development is fully consistent with the planning policies established by the campus, as well as by other local and regional planning agencies, to discourage or curtail further urban sprawl.

The campus is divided into eight land use zones that serve as organizing land use elements. Each of these land use zones contains uses specific to that zone. For example, the Northwest zone consists of residential and supporting recreational uses, while the Core Campus zone contains a majority of the academic buildings on campus. The Health Sciences zone contains a new teaching and research hospital (currently under construction), the existing medical center, and other health care related buildings. Under the 2002 LRDP, the campus would maintain the eight existing land use zones and would continue to develop uses in each of the zones that are compatible with the existing uses. Therefore, land uses within the campus are anticipated to be internally compatible.

While the infill development proposed under the 2002 LRDP would provide compatible on-campus land uses without contributing to urban sprawl, which is beneficial from a regional perspective, it could result in incompatibilities with off-campus and adjacent uses, which are primarily residential to the north, west, and east, and commercial to the south in Westwood Village. A summary of the anticipated type of development under the 2002 LRDP (organized by zone) is provided below, and a discussion of potential land use compatibility impacts immediately follows the description of potential development.

- **Botanical Garden Zone.** No future development is proposed for this zone under the 2002 LRDP.
- **Bridge Zone.** The proposed development allocation of 175,000 gsf in the Bridge zone could provide for potential growth in ambulatory patient care and associated research facilities. The provision of medical-related uses would represent a new use in this already mixed-use zone. The Bridge zone is located adjacent to commercial and retail uses in Westwood Village and high-density multi-family residential uses located just northeast of the Village.
- **Campus Services Zone.** The proposed development allocation of approximately 20,000 gsf is anticipated to accommodate future needs for facilities management and/or community safety administrative services. The western boundary of the Campus Services zone abuts Gayley Avenue, along which high-density multi-family residential uses (including fraternity houses) are located.
- **Central Zone.** The proposed development allocation in the Central zone is anticipated to accommodate future facility requirements for the recreation and athletics program. Opportunities to enhance utilization of recreation facilities through operational improvements will also be explored, such as lighting of additional field areas to permit extended hours of use in winter months. The total development allocation in this zone proposed by the 2002 LRDP is

5,000 gsf. Existing recreational fields (e.g., Intramural Field, North Athletic Soccer Field, and Marshall Field) form the northern boundary of the campus in this zone and provide a visual and spatial buffer between on-campus development and the low-density single-family residential development to the north of campus, across Sunset Boulevard.

- **Core Campus Zone.** The proposed development allocation in the Core Campus zone is anticipated to accommodate future facility requirements of the primary academic, research, libraries, and administrative uses in the zone and to meet the program needs associated with enrollment growth in the College of Letters and Science, Information Studies, Arts and Architecture, Theater, Film, and Television, and professional school programs in education, engineering and computer science, and social welfare. The total development allocation proposed by the 2002 LRDP in this zone is 457,465 gsf. The Core Campus zones shares a perimeter with Sunset Boulevard to the north and Hilgard Avenue to the east. Marymount High School and low-density single-family residential uses are located just north and east of the campus.

- **Health Sciences Zone.** The proposed development allocation in the Health Sciences zone could provide for potential expansion of existing health sciences programs and future flexibility to accommodate implementation of the Academic Health Center Facilities Reconstruction Plan. The total development allocation proposed by the 2002 LRDP in this zone is 269,000 gsf. The Health Sciences zone forms part of the southern edge of the campus and provides a direct interface with land uses in Westwood Village.

- **Northwest Zone.** The proposed development allocation in the Northwest zone is anticipated to accommodate additional student housing in the proposed Northwest Housing Infill Project (NHIP), which is addressed in detail in Volume 2 of this EIR. The NHIP would consist of approximately 550,000 net gsf to provide up to 2,000 beds of undergraduate student housing in three new residence halls on two sites; a recreation area of two to three acres to accommodate an approximately 15,000 gsf recreation building with a pool, outdoor basketball and volley ball courts, and a lawn; and reconfiguration of the ground floors of Hedrick, Rieber, and Sproul residential halls to accommodate support services for the existing and proposed new residence halls. The project would also include a parking facility to provide approximately 299 parking spaces, including 233 parking spaces to replace those removed by the project in various areas of the proposed sites and 66 new spaces to serve the project parking needs. The remaining development allocation in the Northwest zone is anticipated to accommodate expansion of childcare facilities to serve the current and projected campus population. The total development allocation proposed by the 2002 LRDP in this zone is 570,000 gsf. Land uses to the west of the Northwest zone primarily consist of low-density single-family residential to the west of Veteran Avenue and high-density multi-family residential to the west of Gayley Avenue. Proposed development in the western portion of this zone is subject to the Stipulated Use Agreement between the Westwood Hills Property Owners Association and The Regents of the University of California.

- **Southwest Zone.** The proposed development allocation in the Southwest zone is anticipated to provide for a portion of future facility requirements of the primary academic, research, and administrative needs associated with enrollment growth in the College of Letters and Science and professional school programs and future flexibility to accommodate implementation of the Southwest Campus Housing and Parking project. The total development allocation proposed by the 2002 LRDP in this zone is 210,000 gsf. Off-campus uses adjacent to the Southwest zone include the Los Angeles National Cemetery to the west, high-density, multi-family residences to the north, and commercial uses to the east and south.

Because each of the campus zones interfaces with off-campus land uses to varying degrees, development of additional buildings in each of the campus zones could result in a land use compatibility impact depending on the type of land use, as well as the location, mass, and/or height of any new structures. A tall building relative to other buildings on the periphery of the campus (e.g., along Veteran Avenue or Hilgard Avenue) could be incompatible with adjacent one- and two-story residential uses. Other design features, such as building massing, could result in an appearance of greater density in a given location, which could affect immediately adjacent low-density land uses. Certain types of uses, if located on the campus boundaries, could be incompatible with surrounding neighborhoods because of an increase in noise, for example. Similarly, a parking structure built on the edge of the campus could increase activity and noise levels immediately adjacent to sensitive land uses if not properly sited and designed, and the introduction of structures into open space areas on the periphery of the campus could also result in land use incompatibilities.

Since no development is proposed in the Botanical Garden zone, no land use compatibility impacts are anticipated. However, for the reasons cited above, potential impacts could result from development on the perimeter of the campus in the Bridge, Campus Services, Central, Core Campus, Health Sciences, Northwest, and Southwest zones. The Campus Services, Core Campus, and Northwest zones are located in close proximity to low- and high-density residential uses, while the Health Sciences, Bridge, and Southwest zones are located adjacent to both high-density residential uses and the commercial areas of Westwood Village. Potential land use compatibility impacts would be less than significant due to the implementation of PP 4.8-1(a), which requires the evaluation and incorporation of design considerations, such as building height, location, massing, architectural details, landscaping, and pedestrian/vehicular circulation and access, to ensure preservation and enhancement of the visual character and quality of the campus. Similarly, as required by PP 4.8-1(h), all new building projects shall be sited to ensure compatibility with existing uses and the height and massing of adjacent facilities. Spatial features of the campus will continue to be considered in the design and development process, as required by PP 4.8-1(i), to maximize the use of limited land resources. PP 4.8-1(f) and PP 4.8-1(g) further provide that the architectural and landscape traditions of the campus are reinforced and the integrity of the campus historic core is maintained.

Development of the southern edge of the main campus has been, and will continue to be, designed as appropriate to enhance the campus interface with Westwood Village, as required by PP 4.8-1(b). Consistent with PP 4.8-1(c) and PP 4.8-1(d), continued provision of a landscaped buffer along the western, northern, and eastern edges of the main campus will visually and spatially separate the campus from adjacent uses; and the recreational fields in the Central zone provide a further buffer between campus development and the residential uses north of Sunset Boulevard.

Continued infill development focuses development within the campus boundaries rather than outside the campus boundaries, as required by PP 4.8-1(e), thereby limiting urban sprawl. The campus exists in the context of a highly developed urban environment, and the character and composition of the campus would remain essentially the same under the 2002 LRDP as under current conditions.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.8-1(a) *The design process shall evaluate and incorporate, where appropriate, factors including, but not necessarily limited to, building mass and form, building proportion, roof profile, architectural detail and fenestration, the texture, color, and quality of building materials, focal views, pedestrian and vehicular circulation and access, and the landscape setting to ensure preservation and enhancement of the visual character and quality of the campus and the surrounding area. Landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) shall be integrated with development to encourage use through placement and design.* (This is identical to Aesthetics PP 4.1-1(a).)

PP 4.8-1(b) *Development of the southern edge of the main campus shall be designed to enhance the campus interface with Westwood Village.* (This is identical to Aesthetics PP 4.1-2(c).)

PP 4.8-1(c) *The western, northern, and eastern edges of the main campus shall include a landscaped buffer to complement the residential uses of the surrounding community and to provide an attractive perimeter that effectively screens and enhances future development.* (This is identical to Aesthetics PP 4.1-2(e).)

PP 4.8-1(d)	*The existing recreational fields in the Central zone of campus shall be maintained and will continue to provide a buffer between campus development and the residential uses north of Sunset Boulevard.*
PP 4.8-1(e)	*Infill development of the campus shall be continued, which reduces vehicle miles traveled and energy consumption.*
PP 4.8-1(f)	*The architectural and landscape traditions that give the campus its unique character shall be respected and reinforced.* (This is identical to Aesthetics PP 4.1-2(b).)
PP 4.8-1(g)	*The integrity of the campus historic core shall be maintained.* (This is identical to Aesthetics PP 4.1-1(d) and Cultural PP 4.4-1(b).)
PP 4.8-1(h)	*New building projects shall be sited to ensure compatibility with existing uses and the height and massing of adjacent facilities.* (This is identical to Aesthetics PP 4.1-1(c).)
PP 4.8-1(i)	*Facilities shall be sited and designed to enhance spatial development of the campus while maximizing use of limited land resources.*

Following PP 4.8-1(a) through PP 4.8-1(i) ensures that land use compatibility impacts remain less than significant by routinely analyzing and considering land use compatibility in the design phase of all proposed projects, including architectural and landscape considerations, providing landscaped areas around the periphery of campus to provide a visual and spatial buffer for sensitive adjacent land uses, and considering surrounding land uses when proposing projects on the periphery of campus. No mitigation is required.

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

Impact LRDP 4.8-2 **Implementation of the 2002 LRDP would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. This is considered a *less-than-significant* impact.**

UCLA is part of the University of California, a constitutionally created entity of the State of California. As a constitutional entity, the University of California is not subject to municipal regulations, such as the

County and City General Plans. Westwood and other surrounding communities are part of the City of Los Angeles, and this jurisdictional separation provides no formal mechanism for joint planning or the exchange of ideas. Nevertheless, UCLA has considered local plans and policies for the communities surrounding the campus. The Westwood Community Plan, which includes the campus, has identified UCLA as an educational land use, and the LRDP is generally consistent with this local plan.

The campus seeks to maintain an ongoing exchange of ideas and information and to pursue mutually acceptable solutions for issues that confront both the campus and the community. To foster this process, UCLA participates in, and communicates with, City and community organizations, and sponsors various meetings and briefings to keep local organizations, associations, and elected representatives apprised of ongoing planning efforts. UCLA participated in the development of the Westwood Community Plan (part of the General Plan of the City of Los Angeles) and the Westwood Village Specific Plan in an effort to coordinate planning efforts between the City of Los Angeles and the campus.

As required by Section 15125(d) of the CEQA Guidelines, this document discusses any inconsistencies between the 2002 LRDP and applicable regional plans. The regional plans relevant to the 2002 LRDP, and for which a consistency analysis is provided, include the RCPG (SCAG 1995), the Regional Transportation Plan (SCAG 2001), the Los Angeles Water Quality Control Plan for the Los Angeles Region (California Regional Water Quality Control Board, Los Angeles Region, 1995), and the Air Quality Management Plan (South Coast Air Quality Management District [SCAQMD] 1997 and 1999). The following sections provide a consistency analysis between the applicable regional plans and the 2002 LRDP.

Southern California Association of Governments Regional Comprehensive Plan and Guide

SCAG, which is the designated Metropolitan Planning Organization for six Southern California counties (Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles), is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. SCAG has prepared the RCPG in conjunction with its constituent members and other regional planning agencies. The RCPG is intended to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated through the year 2015. The Plan consists of five core chapters that contain goals, policies, implementation strategies, and technical data that support three overarching objectives for the region, including (1) improving the standard of living for all, (2) improving the quality of life for all, and (3) enhancing equity and access to government. Local governments are required to use the RCPG as the basis for their own plans and are required to discuss the consistency of projects of "regional significance" with the RCPG. Specific growth management, regional mobility, and air quality policies of the RCPG are discussed below.

Growth Management Chapter

- *Policy 3.01:* The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.

  Consistency Analysis. The projected growth in average daytime campus population by 2010 of 4,873 persons, including students, staff, and visitors, is accounted for in the SCAG projections[15], which estimate a population of 4,188,638 in 2010 for the City of Los Angeles Subregion. The 2002 LRDP does not provide for population, housing, or employment growth that would exceed the SCAG forecast; therefore, implementation of the LRDP would not interfere with SCAG's ability to utilize its regional population, housing, and jobs forecasts by proposing development that SCAG has not considered. The 2002 LRDP is consistent with this policy.

- *Policy 3.03:* The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.

  Consistency Analysis. The 2002 LRDP proposes development of the remaining 1.71 million gsf of development allocation previously approved in the 1990 LRDP. This development would occur entirely within the campus boundaries and would accommodate, in part, the anticipated regional growth in population, while addressing the increased demand for higher education services. UCLA is located in a highly developed urban environment, adjacent to major transportation centers, and the Transportation Demand Management Program implemented on campus promotes the use of local and regional transportation systems. The campus is further connected to a highly developed infrastructure grid that provides services to the campus and the City as a whole. The 2002 LRDP would provide additional housing and academic services without furthering urban sprawl and would utilize existing regional and local infrastructure and other public services and utility systems to accommodate the increased development and associated population growth. Thus, the 2002 LRDP would not interfere with the ability of SCAG to implement regional growth policies.

- *Policy 3.05:* Encourage patterns of urban development and land use that reduce costs of infrastructure construction and make better use of existing facilities.

  Consistency Analysis. The 2002 LRDP proposes construction of the remaining 1.71 million gsf previously allocated under the 1990 LRDP. These proposed uses would consist of academic, research, administrative, recreational, and residential uses to support the purposes of the campus. Infrastructure systems are in place on campus, and beyond, to serve current and planned

[15] A detailed discussion that demonstrates how UCLA's population growth is accounted for in SCAG's projections is included in Impact 4.10-1 in Section 4.10 (Population and Housing, Environmental Setting).

development. Specifically, in January 1994, the campus Environmental Services Facility began providing electricity to the UCLA campus with two combustion turbine generators burning a combination of methane gas from the nearby Mountaingate Landfill and natural gas. The facility simultaneously produces electricity and steam for the entire campus, as well as chilled water for air conditioning and cooling activities in many buildings on the main campus. The simultaneous production of electricity and steam greatly increases the efficiency of campus energy use and improves the capacity and reliability of the campus electrical generation system. Operation of the facility has reduced the campus long-term utility expenditures and dependence upon electricity provided by the Los Angeles Department of Water and Power (LADWP). The ESF currently provides 80 percent of the electrical needs of the campus peak winter demand and 75 percent of the campus peak summer demand. Remaining electrical needs are supplied by the LADWP, and complete campus utility connections with the LADWP have been maintained for emergencies and peak energy demands. The LADWP connections serve the majority of the campus through an electric substation located immediately north of the ESF.

Construction of most campus facilities under the 2002 LRDP would require only basic service connections to the existing electricity delivery infrastructure and would, therefore, minimize costs associated with infrastructure construction. Additionally, the generation by the campus of a significant majority of the electricity used on campus reduces the costs borne by the LADWP associated with the development and provision of electricity.

The Thermal Energy Storage System (TES) is an extension of the campus ESF and stores chilled water produced during low energy cost periods (nights) for use during high energy cost periods (days). This system, which became operational in August 2002, saves energy costs while increasing the efficiency and capacity of the campus chilled water production system to ensure a continuous supply of chilled water to essential campus facilities.

The School of Engineering and Applied Sciences (SEAS) Chiller Plant consists of four aboveground chillers and associated cooling towers and is currently a back-up plant for the ESF. The SEAS Chiller Plant is used primarily as an emergency back-up facility unless and until an increase in campus consumption requires its operation. The campus has instituted lighting and other energy-conservation measures and has been replacing in-building lighting systems with up-to-date, energy-saving equipment. In addition, the campus shall continue its ongoing energy conservation measures and continue to implement all new development under the 2002 LRDP in accordance with specifications contained in Title 24 of the CCR. With continued implementation of the TES system, current energy conservation practices, and compliance with Title 24 regulations, implementation of the 2002 LRDP would minimize the costs of infrastructure and energy delivery by minimizing the increase in campus energy demand, as well as reducing campus energy use during peak demand periods.

Through the efficient use of electricity on campus, the use of natural gas on the campus would also occur in an efficient manner, as the co-generation facility on campus is fired by natural gas. Ongoing campus programs, practices, and procedures that improve and/or upgrade HVAC units will also allow more efficient use of natural gas for heating. Because the majority of the necessary natural gas infrastructure already exists on the campus, new development would require minimal investment in natural gas infrastructure.

Regional infrastructure is adequate to serve the campus during the 2002 LRDP planning horizon, as established in Section 4.14 (Utilities and Serve Systems) of this document. Limited expansion or renovation of campus infrastructure may be required as part of specific projects, but overall campus infrastructure is adequate to accommodate development under the 2002 LRDP. Localized infrastructure needs would be addressed on a project-specific basis, prior to project approval to ensure the adequate conveyance capacity is provided.

The 2002 LRDP would also efficiently utilize existing land resources by implementing the following objectives, which are included as LRDP objectives and/or as campus programs, practices, and procedures in the 2002 LRDP EIR:

› Continue the infill development of the UCLA campus, which reduces vehicle miles traveled and energy consumption (PP 4.8-1(e) and LRDP objective)

› Site and design facilities to enhance spatial development of the campus while maximizing use of limited land resources (PP 4.8-1(i) and LRDP objective)

› Accommodate a significant proportion of enrollment growth by utilizing existing campus facilities more intensively during the summer and minimizing capacity impacts in student services, housing, parking, and traffic, thereby limiting headcount growth in the regular session when campus activity is higher (LRDP objective)

Planning objectives contained within the 2002 LRDP that would specifically minimize infrastructure construction include

› To the extent practicable, continue to incorporate design features, technological adaptations, and/or planning principles into future campus development to encourage or reinforce the concept of environmental sustainability and stewardship, including the conservation of resources and the minimization of waste (LRDP objective)

› Promote the efficient use of water through the use of natural drainage patterns, drought-tolerant landscaping, and recycling and reuse (LRDP objective)

› Encourage energy efficiency through thoughtful design that considers the effective placement of buildings and the use of shading, to the extent feasible (LRDP objective)

› Provide and promote opportunities for the use of alternative transportation modes (LRDP objective)

› Continue to acquire and use clean fuel vehicles for public transit and fleet vehicles (LRDP objective)

Continued implementation of existing energy conservation practices, LRDP objectives, and mitigation measures addressing energy conservation would result in consistency with this SCAG policy.

- *Policy 3.09:* Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.

  Consistency Analysis. The consistency analysis for Policy 3.05, above, describes existing infrastructure use and conservation practices, as well as LRDP objectives and campus programs, practices, and procedures that would contribute to reducing costs for infrastructure and making better use of existing facilities. These methods would support SCAG Policy 3.09, which is aimed at reducing the cost of infrastructure and supporting efforts to seek new sources of funding for the development and provision of services. The 2002 LRDP is, therefore, consistent with this policy.

- *Policy 3.10:* Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.

  Consistency Analysis. As noted above, UCLA is part of the University of California, a constitutionally created unit of the State of California, and is, therefore, not subject to municipal policies such as the County and City General Plans. UCLA has considered the local plans and policies for the communities surrounding the campus and the LRDP is generally consistent with those local plans. The campus seeks to maintain an ongoing exchange of ideas and information and to pursue mutually acceptable solutions for issues that confront both the campus and the community. To foster this process, UCLA participates in, and communicates with, City and community organizations, and sponsors various meetings and briefings to keep local organizations, associations, and elected representatives apprised of ongoing planning efforts. Implementation of the 2002 LRDP would not interfere with the City of Los Angeles' ability to expedite the permitting process with regard to other projects within its jurisdiction. In fact, the 2002 LRDP would enhance the economic vitality and competitiveness of the region by responding to the increased demand for academic services. Therefore, the 2002 LRDP is consistent with this policy.

- *Policy 3.12:* Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and, thus, reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.

  Consistency Analysis. The UCLA campus is located adjacent to pedestrian-friendly Westwood Village, as well as major transportation corridors. The campus is located immediately adjacent to Interstate 405, a major north/south arterial in the southern California region. The campus is within a few miles of both Interstate 10 and the 101 Freeway, major east/west freeways. All of these highways serve to connect the campus with the broader geographic region outside of the Los Angeles area. The central location of the campus encourages transit use. Viable transit opportunities include public bus services provided by six outside operators and campus-operated shuttle bus services. These services not only offer an alternative means by which to commute to the campus, but also help to reduce the need for a car once at UCLA through the ability to utilize shuttles to get around the campus, travel into Westwood Village, or travel to other off-campus locations. UCLA has also implemented a Transportation Demand Management (TDM) Program that facilitates and promotes the use of transit, carpools, vanpools, and bicycling. The transportation alternatives made available to the campus population through the various transit services and the campus trip-reduction program are discussed in greater detail below.

Public Transit

The UCLA campus area is served by six public transit operators: Santa Monica Municipal Bus Lines (SMMBL), Culver City Bus (CCB), the Los Angeles County Metropolitan Transportation Authority (LACMTA), the Los Angeles Department of Transportation (LADOT), the Antelope Valley Transit Authority (AVTA), and Santa Clarita Transit (SCT). Together, these operators run a total of eighteen bus routes through the Westwood area by way of Le Conte Avenue, Hilgard Avenue, Gayley Avenue, or Wilshire Boulevard. All eighteen routes stop within short walking distance of campus or a UCLA-operated Express Shuttle stop. These eighteen bus lines provide convenient access between the campus and areas as far west as Pacific Palisades and the City of Santa Monica, as far east as Montebello, as far south as the Los Angeles International Airport (LAX), and as far north as Santa Clarita. When transfer opportunities are also considered, these bus routes provide transit service to much of the Los Angeles region.

Campus Transportation Demand Management (TDM) Program

The UCLA TDM Program began in 1984 with a mission of using parking fees and other UCLA resources to achieve cost-effective reductions in campus trip generation and parking demand, while increasing mobility options for faculty, staff, and students. LRDP Mitigation Measure C-1.1, included in the Final EIR for the 1990 LRDP, required that the TDM program be continued and expanded. As a result, the UCLA TDM program has grown into a comprehensive program that offers a broad range of services to encourage and assist UCLA commuters in utilizing alternatives to the single-occupancy vehicle. As part of its ongoing TDM Program, UCLA actively provides and promotes: vanpools; carpool matching and parking incentive programs; financial incentives for carpool and vanpool participants; accommodation of the use of other modes of transit, including bicycles, motorcycles, and scooters; alternative work schedules and telecommuting; annual distribution of the UCLA Commuter's Guide; parking control management; and restricting access to main campus parking facilities for on-campus housing residents.

Bicycling and walking are encouraged on the campus, with numerous bicycle racks provided for student and faculty use throughout the campus. The campus has been designed with a system of interconnected pedestrian pathways linking different parts of the campus. These pathways are typically landscaped and are always sited so as to encourage their use, and provide students, faculty, and staff with numerous access routes from one part of the campus to another. Adjacent Westwood Village has been designed as a pedestrian-friendly commercial neighborhood and contains numerous retail, restaurant, and entertainment establishments that provide services to the campus, all within walking distance of the campus.

UCLA has one of the most comprehensive TDM programs in the country with the largest vanpool program of any public or private university. During the more than 18 years of operation, UCLA's TDM program has remained at the leading edge of such programs, and has received numerous awards from regional and local agencies, including the State of California Governor's award, the City of Los Angeles Mayoral award, and Rideshare Program awards from the SCAQMD and SCAG.

By 2000, the TDM program had exceeded the 1990 LRDP goal of a 12-percent reduction in faculty/staff parking rates (below 1990 LRDP levels) five years earlier than projected in the 1990 LRDP. In addition, since 1990, when the SCAQMD first required a survey of all employees to determine Average Vehicle Ridership[16] (AVR), the TDM program increased the campuswide AVR from 1.26 to 1.51 by Spring 2000, exceeding the goal of 1.5 set by the SCAQMD. Particularly in large metropolitan areas, such as Los Angeles, an AVR of 1.5 is considered a high goal to achieve.

The specific components of the TDM Program may change over time as the campus strives for the most cost-effective manner by which to achieve its required goals, so long as the overall effectiveness of the program is not compromised.

In addition, the provision of additional housing on campus, as part of the 2002 LRDP, encourages further campus development as a resident campus rather than a commuter campus, thus reducing the number of auto trips and vehicle miles traveled.

The 2002 LRDP contains specific planning objectives aimed at reducing vehicle miles traveled, providing alternative methods of transportation, and integrating walkways with building design to encourage use through placement and design. Some of these objectives are also included as campus programs, practices, and procedures in the 2002 LRDP EIR. These key objectives and/or programs, practices, and procedures include

- Continue the infill development of the UCLA campus, which reduces vehicle miles traveled and energy consumption (PP 4.8-1(e) and LRDP objective)
- Continue to integrate landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) with development to encourage use through placement and design (LRDP objective)
- Clarify and strengthen pedestrian and vehicular circulation to enhance way-finding and promote safety (LRDP objective)
- Develop on-campus housing to enhance the educational experience for students and continue the evolution of UCLA from a commuter to a residential campus (PP 4.13-1(c) and LRDP objective)
- Provide and promote opportunities for the use of alternative transportation modes (LRDP objective)

[16] The AVR is the ratio of employees arriving between 6 A.M. and 10 A.M. to the motor vehicles driven to campus.

These planning principles would serve to encourage use of transit, reduce the number of vehicle trips and miles traveled, and create further opportunities for campus students, faculty, and staff to walk and bike. Therefore, the 2002 LRDP is consistent with this policy.

- *Policy 3.13:* Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.

  Consistency Analysis. The 2002 LRDP proposes development entirely within the campus boundaries to accommodate the increased need for higher education services. This infill development maximizes the use of the existing campus and provides the benefit of curtailing urban sprawl.

  UCLA is located in a highly developed urban environment, adjacent to major transportation centers, and the Campus Transportation Demand Management Program promotes the use of local and regional transportation systems, as fully described in the consistency analysis for SCAG Policy 3.12. The campus is easily accessible from local and regional transportation systems that provide service to the campus, the City of Los Angeles, and the region. The infill development proposed by the 2002 LRDP would, in fact, provide additional housing and academic services without furthering urban sprawl and would continue to utilize existing public transportation services to accommodate the increased development and associated population growth. The 2002 LRDP would not require new or expanded transportation systems, and is, thus, consistent with this policy.

- *Policy 3.14:* Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.

  Consistency Analysis. As noted above in the discussions of SCAG Policies 3.12 and 3.13, the UCLA campus is centrally located to regional activity centers connected by local and regional transportation systems. Adjacent activity centers, such as downtown Los Angeles, beaches, and regional recreational, entertainment, and shopping facilities, are located on transit routes and accessible from the campus. Therefore, the 2002 LRDP is consistent with this policy.

- *Policy 3.16:* Encourage developments in and around activity centers, transportation corridors, underutilized infrastructure systems, and areas needing recycling and redevelopment.

  Consistency Analysis. As noted above with regard to SCAG Policies 3.12, 3.13, and 3.14, the 2002 LRDP represents infill development on a highly developed campus, utilizing existing infrastructure and public service systems. The campus is centrally located to activity centers throughout the southern California region, connected by an extensive transportation network. The 2002 LRDP would not interfere with the ability of the City of Los Angeles to direct noncampus development to areas with underutilized infrastructure systems or areas needing recycling or redevelopment. Therefore, the 2002 LRDP would be consistent with this policy.

- *Policy 3.18:* Encourage planned development in locations least likely to cause adverse environmental impact.

Consistency Analysis. The UCLA campus is part of a highly developed urban environment. Development of the remaining 1.71 million gsf allocated under the 1990 LRDP would occur entirely within campus boundaries. Provision of additional housing, academic, research, administrative, and recreational facilities on campus would minimize potential adverse environmental impacts on adjacent land uses. In addition, all of the existing campus programs, practices, and procedures, as well as 2002 LRDP mitigation measures identified in this EIR, are designed to reduce environmental impacts to the maximum extent feasible. The 2002 LRDP is consistent with this policy.

- *Policy 3.21:* Encourage the implementation of measures aimed at the preservation and protection of the recorded and unrecorded cultural resources and archaeological sites.

Consistency Analysis. The campus historic core, located in the Core Campus zone, has been designated by the State Historic Preservation Office as eligible for listing on the National Register of Historic Places, and the campus has continued to preserve and enhance these structures and connecting open spaces. The appearance, location, and setting of these and other historic buildings on campus remain generally similar to the time of construction, as the buildings were constructed as academic and support facilities for the University and serve these functions today. Royce Hall, one of the buildings in the historic core, serves as the signature structure for the campus, and along with the other campus buildings, has seen continuous use and maintenance since its construction and has not suffered adverse effects.

The campus has conducted and will continue to conduct renovations (particularly seismic renovations) to historic structures. Seismic renovations to Moore Hall, Powell Library, Royce Hall, and most recently, Haines Hall, have been completed, and all such projects were completed in consultation with SHPO and under the authoritative guidance provided in *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Illustrated Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Weeks and Grimmer 1995). Renovation projects that would occur during implementation of the 2002 LRDP would be conducted with the same consultation and guidance, as required by PP 4.4-1(a).

Planning objectives contained in the 2002 LRDP and/or campus programs, practices, and procedures identified in the 2002 LRDP EIR that would protect cultural resources include

› Respect and reinforce the architectural and landscape traditions that give the campus its unique character (PP 4.1-2(b) and LRDP objective)

› Maintain the integrity of the campus historic core (PP 4.1-1(b) and LRDP objective)

› Site new building projects to ensure compatibility with existing uses and the height and massing of adjacent facilities, to the extent feasible (PP 4.1-1(c) and LRDP objective)

Section 4.4 (Cultural Resources) also includes MM 4.4-3(a), MM 4.4-3(b), MM 4.4-4(a), MM 4.4-4(b), and PP 4.4-5, which address avoidance and protection of historic and potentially historic structures, archaeological resources, and paleontological resources, as well as mitigation for impacts to such resources, if impacts occur. These procedures require the following:

suspension of construction activities in an area where unique archaeological and paleontological resources are discovered (until they can be evaluated); avoidance of resources, where feasible, or scientific recovery and study; and compliance with Section 5097 of the Public Resources Code, which governs the treatment of human remains. With implementation of these measures and/or existing campus programs, practices, and procedures, the 2002 LRDP is consistent with this policy.

- *Policy 3.22:* Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.

  Consistency Analysis. Implementation of the 2002 LRDP would result in the construction of new development on campus, an area where seismic hazards could occur. However, 2002 LRDP PP 4.5-1(a) requires preparation of a site-specific geotechnical study (including engineering recommendations to mitigate potential seismic-related impacts) and continuation of PP 4.5-1(b) through PP 4.5-1(d) would further reduce this impact. Compliance with the Uniform Building Code (UBC), California Building Code (CBC), and the University Policy on Seismic Safety would also minimize the effects of strong groundshaking by designing new buildings to specified design requirements. Therefore, implementation of the 2002 LRDP would be consistent with this policy as it relates to seismic hazards, as further described in Impact 4.5-1 in Section 4.5 (Geology and Soils) of this document.

  There are no areas of high fire hazard on the campus, and no new development under the 2002 LRDP is anticipated within Zone AO, an area that is considered to be an area subject to 100-year shallow flooding (the amount of water produced by a 100-year flood). Therefore, the 2002 LRDP would be consistent with this policy as it relates to flood and fire hazards, as further discussed in "Effects Found Not to be Significant" in Section 4.6 (Hazards and Hazardous Materials) and Impact LRDP 4.7-8 in Section 4.8 (Hydrology and Water Quality) of this document.

  An area of the UCLA campus in the Northwest zone is identified by the California Department of Conservation, Division of Mines and Geology as potentially subject to landsliding, with accompanying risk of mudflows during periods of heavy rainfall. No documented landslides or mudflows have occurred on campus, likely a result of the extensive landscaping and hardscape, and all projects involving new construction and renovation include the provision of landscaping as part of the project. The natural topography in this area consists of gently sloping hillsides rather than steep slopes. Therefore, the potential for landslides or mudflows to occur would be considered remote, as discussed in Impact 4.5-3 of Section 4.5 (Geology and Soils) of this document and Section 4.7 (Hydrology and Water Quality) of Volume 2 of this document.

- *Policy 3.23:* Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.

Consistency Analysis. Objectives in the 2002 LRDP and/or campus programs, practices, and procedures identified in the 2002 LRDP EIR[17] that demonstrate UCLA's commitment to protection of natural resources include

- Continue the infill development of the UCLA campus, which reduces vehicle miles traveled and energy consumption and utilizes limited land resources wisely (PP 4.8-1(e) and LRDP objective)
- Site and design facilities to enhance spatial development of the campus while maximizing use of limited land resources (PP 4.8-1(i) and LRDP objective)
- Continue to integrate landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) with development to encourage use through placement and design (LRDP objective)
- Provide a landscaped buffer along the western, northern, and eastern edges of the main campus (PP 4.1-2(e) and LRDP objective)
- To the extent practicable, continue to incorporate design features, technological adaptations, and/or planning principles into future campus development to encourage or reinforce the concept of environmental sustainability and stewardship, including the conservation of resources, and the minimization of waste (LRDP objective)
- Promote the efficient use of water through the use of natural drainage systems, drought-tolerant landscaping, and recycling and reuse (LRDP objective)

Implementation of the 2002 LRDP could increase the number of noise sources at the campus. These sources would include additional motor vehicles, new stationary sources (such as rooftop heating, ventilation, and air conditioning equipment), and increased human activity throughout the campus. These additional sources are not expected to expose people to severe noise levels or cause a substantial increase in ambient noise levels as discussed in Impacts LRDP 4.9-5 through 4.9-6 in Section 4.9.3 (Noise and Vibrations, Project Impacts and Mitigation). Following PP 4.9-1, PP 4.9-2, PP 4.9-5(a), PP 4.9-5(b), PP 4.9-7(a), and PP 4.9-7(b) ensures that these potential noise impacts are reduced to the maximum extent possible.

Under the 2002 LRDP, noise would continue to be generated during the construction of the new campus buildings. These activities could increase noise levels at nearby on-campus buildings. The nearest off-campus homes are located at least 100 hundred feet from any potential construction site within the main campus and are separated from the campus by busy roadways. Construction activities would not increase noise levels at these homes by a substantial amount. Following PP 4.9-8(a) through PP 4.9-8(d) would further reduce construction noise impacts.

Implementation of the 2002 LRDP would result in new development within the campus that could remove existing trees, shrubs, and landscaped features that could be used by special status species. Biological surveys of the campus were performed during Fall 2001 and Spring 2002 to determine if the removal, modification, and/or alteration of these landscaped areas would affect

[17] Campus programs, practices, and procedures will be monitored and enforced in the same manner as mitigation measures

any rare, endangered, or threatened species. Results of these surveys indicated that no species of animal or plant designated as rare, endangered, or threatened was found within the campus, or is known or suspected to exist within the campus. As there are no known special status species within the campus, implementation of the 2002 LRDP would not affect any rare or endangered species of animal or plant.

Within highly urbanized areas like the campus, landscape features constitute the majority of available avian habitat, which includes nesting and/or roosting opportunities provided by mature trees. As noted in Impacts LRDP 4.3-1 and LRDP 4.3-2 Section 4.3 (Biological Resources) of this document, the removal or alteration of these landscape features, or noise, debris, or an increase in human presence generated by construction and implementation of the 2002 LRDP could impact potential nesting and/or roosting habitat of avian species covered under the Migratory Bird Treaty Act (MTBA) and Section 3503 of the California Fish and Game Code, including raptors. To avoid impacts to these species, the 2002 LRDP includes mitigation measures designed to protect nesting raptors and other special status species covered under the MBTA and Section 3503 of the Fish and Game Code. MM 4.3-1(a) through MM 4.3-1(c) includes specific methods to ensure that habitat removal and construction-related activities associated with implementation of the LRDP do not disturb nesting raptors and special status avian species.

Similar measures have been developed and implemented for other campus projects, as detailed in the 2000 LRDP Mitigation Monitoring Program Status Report, and all projects involving new construction and renovation include provisions for replacement landscaping. With implementation of the indicated mitigation measures, the UCLA 2002 LRDP is in conformance with the regulations set forth within MBTA and Section 3503 of the California Fish and Game Code.

The campus is not located within an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1994, and no known active or potentially active faults traverse the campus. Therefore, the campus would not be subject to ground surface rupture. However, the campus lies within a seismically active area bounded by two faults that could produce earthquakes of magnitude 6.0 or greater. Any development on campus could be subject to seismically induced groundshaking and impacts related to seismically induced groundshaking, such as liquefaction, lateral spreading, subsidence, collapse landsliding, or differential settlement (in limited areas of the campus). However, development under the 2002 LRDP would be subject to all applicable provisions of Title 24 of the California Building Code or Zone 4 of the Uniform Building Code, whichever is more stringent, and the University Policy Seismic Safety. The campus will also continue its existing program of upgrading buildings to meet current seismic codes, and site-specific geotechnical studies would be performed pursuant to PP 4.5-1(a) to determine seismic, geological, soil, and groundwater conditions at each construction site and to develop recommendations to prevent or avoid any identified hazards. Continued implementation of campus programs, practices, and procedures, as well as compliance with applicable regulations, would reduce these risks.

The campus implements emergency prevention programs, practices, and procedures and is also responsible for training UCLA staff and building coordinators on emergency procedures and safety techniques. The UCLA Office of Environment, Health & Safety (EH&S) periodically conducts review sessions with the Earthquake Disaster, Hazardous Materials, and Public Safety Units of the LAFD to review the campus Disaster Response Plan, Energy Systems Facility Risk Management Plan, and Business Plan. EH&S periodically conducts emergency drills in campus facilities on an ongoing basis, in coordination with individual building safety coordinators. Compliance with similar measures is demonstrated in the 2000 LRDP Mitigation Monitoring Plan Status Report, which indicates that EH&S continues to review existing and planned structures on campus to modify accident prevention features, as required, to minimize the need for emergency response from the City of Los Angeles.

With implementation of these campus programs, practices, and procedures, the campus provides adequate emergency response and recovery plans, and is consistent with this policy.

- *Policy 3.24:* Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing.

  Consistency Analysis. The Northwest Housing Infill Project (NHIP), which is described in detail in Volume 2 of this document, provides for new residential housing in the Northwest zone of campus. This project would provide 2,000 beds for undergraduate housing, addressing an unmet need for on-campus housing and furthering the LRDP objective of continuing the evolution of UCLA from a commuter to a residential campus. The 1990 LRDP adopted a goal of housing 50 percent or more of its student population. The 2002 LRDP increases that goal to 58 percent. The NHIP will, therefore, increase the supply of affordable student housing on campus, and is consistent with this policy.

- *Policy 3.27:* Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.

  Consistency Analysis. A key operational planning objective in the 2002 LRDP states that, to the extent practicable, UCLA shall continue to incorporate design features, technological adaptations, and/or planning principles into future campus development to encourage or reinforce the concept of environmental sustainability and stewardship, including the conservation of resources, and the minimization of waste.

  The majority of operational objectives in the 2002 LRDP promote the principles of sustainability, such as the efficient use of water through the use of natural drainage patterns and drought-tolerant landscaping, recycling and reuse, encouraging energy efficiency, utilization of clean-fuel vehicles, and providing and promoting opportunities for the use of alternative transportation modes. The campus has instituted and maintained extensive conservation and recycling programs, which are described in Chapter 4.14 (Utilities and Service Systems) and has substantially reduced the campus reliance on these service systems in spite of an increasing campus population.

The University of California is directed by the Master Plan for Higher Education in California to provide instruction in the liberal arts and sciences and professional education in Law, Medicine, Veterinary Medicine, and Dentistry. It is also assigned exclusive responsibility for doctoral education in most disciplines and is designated as the primary State-supported academic agency for research. UCLA's mission within this context is to offer teaching, research, and service programs of the highest quality to serve the needs of the Los Angeles region, the State of California, and the nation. To support this mission, the campus provides associated housing facilities for students and faculty, health care services, social services, recreational facilities available to the general public (with purchase of a recreational card) and law enforcement and police protection on campus. LAFD Fire Station 37 is located in the Southwest zone of the campus and provides campus fire protection services. Therefore, the 2002 LRDP would be consistent with this policy.

Regional Mobility Chapter

- *Policy 4.01:* Transportation investments shall be based on SCAG's adopted Regional Performance Indicators:

  1. *Mobility*—Transportation Systems should meet the public need for improved access, and for safe, comfortable, convenient, faster, and economical movements of people and goods.

     Average Work Trip Travel Time in Minutes—25 minutes (Auto)

     P.M. Peak Freeway Travel Speed—45 minutes (Transit)

     P.M. Peak Nonfreeway Travel Speed (performance indicators not given)

     Percent of P.M. Peak Travel in Delay (Freeway) (performance indicators not given)

     Percent of P.M. Peak Travel in Delay (Nonfreeway) (performance indicators not given)

  2. *Accessibility*—Transportation system should ensure the ease with which opportunities are reached. Transportation and land use measures should be employed to ensure minimal time and cost.

     Work Opportunities within 45 minutes door to door travel time (Mode Neutral)

     Average transit access time (performance indicators not given)

  3. *Environment*—Transportation system should sustain development and preservation of the existing system and the environment (All Trips).

     CO, VOC, NOx, PM_{10}, $PM_{2.5}$—Meet the applicable SIP Emission Budget and the Transportation Conformity requirements

4. *Reliability*—Transportation system should have reasonable and dependable levels of service by mode (All Trips)

   Transit—63 percent

   Highway—76 percent

5. *Safety*—Transportation systems should provide minimal accidents, death and injury (All Trips)

   Fatalities per Million Passenger Miles—0

   Injury Accidents—0

6. *Equity/Environmental Justice*—The benefits of transportation investments should be equitably distributed among all ethnic, age and income groups (All Trips)

   By Income Groups Share of Net Benefits—Equitable Distribution of Benefits among all Income Quintiles

7. *Cost-Effectiveness*—Maximize Return on Transportation Investment (All Trips). Air Quality, Mobility, Accessibility and Safety

   Return on Total Investment—Optimize Return on Transportation Investments

- *Policy 4.02:* Transportation investments shall mitigate environmental impacts to an acceptable level.
- *Policy 4.04:* Transportation Control Measures shall be a priority.
- *Policy 4.16:* Maintaining and operating the existing transportation system will be a priority over expanding capacity.

Consistency Analysis. Implementation of the 2002 LRDP would not interfere with SCAG's ability to implement any of the identified transportation policies. In fact, UCLA Transportation Services develops and implements state-of-the-art and cost-effective services, programs, and products that anticipate and respond to the full range of campus transportation, parking, commuter, mobility, and environmental challenges, and helps SCAG achieve the adopted Regional Performance Indicators. UCLA's Transportation Services continually assesses the campus transportation program with a view toward improved access and safe, comfortable, convenient, faster, and economical use. The consistency analysis for Policy 3.12 includes a full description of the Campus TDM program. As noted, as part of its TDM program, UCLA actively provides and promotes vanpools, carpool matching and parking incentive programs, financial incentives for carpool and vanpool participants, and accommodation of the use of other modes of transit, all of which promote mobility, cost-effectiveness, and accessibility, as well as environmental sustainability by reduction in vehicle trips. The campus transportation system, both infrastructure and operations, is designed to maximize safety for all patrons.

By 2000, the Campus TDM program had exceeded the 1990 LRDP goal of a 12-percent reduction in faculty/staff parking rates (below 1990 LRDP levels) five years earlier than projected in the 1990 LRDP. In addition, since 1990, when the SQAMD first required a survey of all employees to determine Average Vehicle Ridership (AVR), the TDM program increased the campuswide AVR from 1.26 to 1.51 by Spring 2000, exceeding the goal of 1.5 set by the SQAMD. Particularly in large metropolitan areas, such as Los Angeles, an AVR of 1.5 is considered a high goal to achieve. This high AVR demonstrates the success of the program, which in turn is logically a result of such factors as accessibility, enhanced mobility, cost-effectiveness, reliability, and safety. The TDM program encourages the use of alternative modes of transportation for students, faculty, and staff, and integrates the regional transit system with the campus. This integration facilitates SCAG's policy of maintaining and operating the existing transportation system. It is available to all students, faculty, and staff without regard to ethnicity, age, or income level. Opportunities for telecommuting are provided wherever feasible. This program encourages the use of transit, reduces the number of vehicle trips and miles traveled, and creates further opportunities for alternative transportation. Thus, the TDM program enhances the regional transportation system and is consistent with the SCAG policies outlined above. The 2002 LRDP also maintains the 1990 LRDP campus vehicle trip cap of 139,500 average daily trips, and LRDP planning principles include accommodating a significant proportion of enrollment growth by utilizing existing campus facilities more intensively during the summer. Further, the LRDP provides that the campus would continue to provide and promote opportunities for the use of alternative transportation modes. Feasible mitigation measures will be implemented as part of the 2002 LRDP to reduce any transportation impacts as a result of development under the 2002 LRDP. PP 4.13-1(a) and PP 4.13-1(d) provide that the campus shall continue to maintain the 1990 LRDP vehicle trip cap of 139,500 average daily trips, develop on-campus housing to promote UCLA as a residential campus, continue to maintain the 1990 LRDP parking cap of 25,169 spaces, and continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. Continued implementation of campus transportation programs and implementation of these existing campus programs, practices, and procedures would minimize the impacts of the 2002 LRDP on transportation services.

The development and increased campus population would be supported by the existing transportation network serving the City of Los Angeles and the southern California region. Therefore, the 2002 LRDP would be consistent with these policies.

As discussed later in this consistency analysis, the 2002 LRDP is consistent with the 1997 South Coast Air Quality Management Plan (AQMP) and the 1999 Amendment. The AQMP serves as the South Coast Air Basin portion of the State Implementation Plan (SIP). Therefore, the 2002 LRDP is also consistent with the emissions budgets of the SIP.

Air Quality Chapter

- *Policy 5.07:* Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.

Consistency Analysis. As noted above in the discussions of SCAG Policies 3.12 and 4.01, the UCLA campus has successfully implemented a comprehensive TDM Program since 1984 that offers a broad range of services to encourage and assist UCLA commuters in utilizing alternatives to the single-occupancy vehicle. As part of its ongoing TDM Program, UCLA actively provides and promotes: vanpools; carpool matching and parking incentive programs; financial incentives for carpool and vanpool participants; accommodation of the use of other modes of transit, including bicycles, motorcycles, and scooters; alternative work schedules and telecommuting; annual distribution of the UCLA Commuter's Guide; parking control management; and restricting access to main campus parking facilities for on-campus housing residents. UCLA has also established BruinGo, a partnership with the Santa Monica Big Blue Bus system, to offer a pre-paid pilot transit pass program for students, faculty, and staff.

The LRDP contains specific planning objectives aimed at reducing vehicle miles traveled and providing alternative methods of transportation, as well as land use policies integrating walkways with building design to encourage use through placement and design. These planning principles would serve to encourage use of transit, reduce the number of vehicle trips and miles traveled, and create further opportunities for campus students, faculty, and staff to walk and bike to class and work. Therefore, the 2002 LRDP is consistent with this policy.

- *Policy 5.11:* Through the environmental review process, ensure that plans at all levels of government (regional, air basin, County, subregional and local) consider air quality, land use, transportation, and economic relationships to ensure consistency and minimize conflicts.

Consistency Analysis. The 2002 LRDP EIR fully addresses air quality, land use, and traffic and circulation impacts resulting from construction and operation of the 2002 LRDP and considers all relevant planning documents, such as the Air Quality Management Plan, the Congestion Management Program, and the 2002 LRDP itself.

Water Quality Chapter

- *Policy 11.07* Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.

Consistency Analysis. The DWP has not extended reclaimed water infrastructure to the Westwood area, nor are plans currently in place for the provision of reclaimed infrastructure to the area. Therefore, a reclaimed water system on campus is currently not feasible. If reclaimed water infrastructure becomes available during the planning horizon of the 2002 LRDP, the campus will evaluate its feasibility in terms of cost-effectiveness and environmental sustainability, and will endeavor to use reclaimed water where appropriate. The 2002 LRDP is consistent with this policy.

Regional Water Quality Control Board, Water Quality Control Plan (Los Angeles Basin Plan)

Consistency with the Clean Water Act (CWA) is demonstrated through compliance with the National Pollutant Discharge Elimination System (NPDES) permit process (Phase I and Phase II), as well as all regulations promulgated by the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs). Responsibility for the protection of water quality in California rests with the SWRCB and nine RWQCBs.

The Los Angeles Basin Plan, implemented by the Los Angeles RQWCB, specifically, (1) designates beneficial uses for surface and ground waters, (2) sets narrative and numerical objectives that must be attained and maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy, and (3) describes implementation programs to protect all waters in the region. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Stormwater runoff from the campus originates upstream from the Stone Canyon watershed. Runoff from the campus eventually flows to Ballona Creek and into Santa Monica Bay. The campus is situated over the Santa Monica Groundwater Basin, for which the Basin Plan has specifically designated water quality objectives. However, as noted earlier, the campus is not a significant source of groundwater recharge to the Basin. The campus is required to comply with all applicable water quality requirements established by the Los Angeles RWQCB and SWRCB. In addition, implementation of the 2002 LRDP would be in accordance with the NPDES permit process, as also described below. Thus, point and nonpoint discharges would be regulated by the appropriate NPDES permits, and the beneficial uses of the surface water and groundwater basin would be maintained. Therefore, implementation of the 2002 LRDP would be consistent with the Basin Plan and the Porter-Cologne Water Quality Control Act (which establishes the State Water Resources Control Board and each Regional Water Quality Control Board as the principal State agencies for having primary responsibility in coordinating and controlling water quality in California).

The NPDES permit system was established in the CWA to regulate both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. The NPDES program consists of (1) characterizing receiving water quality, (2) identifying harmful constituents, (3) targeting potential sources of pollutants, and (4) implementing a Comprehensive Stormwater Management Program (CSWMP). The reduction of pollutants in urban stormwater discharge to the maximum extent practicable (MEP) through the use of structural and nonstructural Best Management Practices (BMPs) is one of the primary objectives of the NPDES program, including Phase I and Phase II. These phases are described below, followed by a consistency analysis. Consistency with Phase I and Phase II of the NPDES results in consistency with the overall NPDES program.

Construction activities such as grading and excavation of areas larger than five acres would require a Phase I (General Construction Activity Stormwater Permit) permit (reduced to one acre under NPDES Phase II March 2003). In accordance with this requirement, UCLA has obtained Phase I permits for all applicable projects, as reported in past annual campus Mitigation Monitoring Status Reports.

For 2002 LRDP development and consistent with the Phase I permit, the University would eliminate or reduce nonstormwater discharges to stormwater systems, develop and implement a Stormwater Pollution Prevention Program (SWPPP), and perform inspections of stormwater control structures and pollution prevention measures. Erosion control plans in compliance with NPDES requirements are prepared prior to construction of individual projects. These measures would ensure consistency with NPDES Phase I and would reduce erosion and downstream soil deposition. Therefore, the proposed project would be in compliance with NPDES Phase I requirements.

New NPDES Phase II stormwater regulations were finalized and issued by the EPA in January 2000 in an effort to continue to preserve, protect, and improve the Nation's water resources from polluted stormwater runoff. These new regulations are designed to implement programs to control urban stormwater runoff from additional municipal separate storm sewer systems (MS4s) in urbanized areas and operations of small construction sites that were not already covered by Phase I NPDES permits. The main objectives of the Phase II regulations are to (1) reduce, to the maximum extent possible, the amount of pollutants being discharged and (2) protect the quality of the receiving waters.

To meet this goal, the permittee must implement a Stormwater Management Program that addresses six minimum control measures, including (1) public education and outreach, (2) public participation/involvement, (3) illicit discharge detection and elimination, (4) construction site stormwater runoff control for sites greater than 1 acre, (5) post-construction stormwater management in new development and redevelopment, and (6) pollution prevention/good housekeeping for municipal operations. These control measures will typically be addressed by developing BMPs. UCLA will be required to apply for a Phase II permit by March 10, 2003, and must be in full compliance with the Phase II regulations (i.e., full development and implementation of a Stormwater Management Program) within five years of the date the permit is issued.

Under the 2002 LRDP, areas greater than one acre would obtain NPDES Phase II permit. Consistent with the Phase II permit, the University would implement a Stormwater Management Program that includes the six minimum control measures, which are typically addressed through the development of BMPs. Furthermore, continued compliance with SWRCB regulations would be required, and water quality impacts would be minimized. In addition, the NPDES Phase II program would require the campus to establish a comprehensive water quality testing and monitoring program. The campus is in the process of developing the requisite Phase II program, and implementation of the 2002 LRDP is anticipated to be consistent with NPDES Phase II requirements.

The 2002 LRDP is consistent with the Los Angeles Basin Plan, the NPDES Program, and all other relevant city wide regulations promulgated by the SWRCB and Los Angeles RWQCB.

South Coast Air Quality Management District, Air Quality Management Plan (AQMP)

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources within the South Coast Air Basin (Basin). It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs). The most recent of these was adopted by the Governing Board of the SCAQMD on November 16, 1996. This AQMP, referred to as the 1997 AQMP, was prepared to comply with the federal and State Clean Air Acts and amendments, to accommodate growth, to reduce the high pollutant levels in the Basin, to meet federal and State air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. An amendment to the ozone portion of the 1997 AQMP was adopted by the Governing Board on December 10, 1999. Principal control measures of the AQMP focus on adoption of new regulations or enhancement of existing regulations for stationary sources as well as implementation/facilitation of advanced transportation technologies (i.e., telecommunication, zero emission and alternative-fueled vehicles and infrastructure, and both capital and noncapital transportation improvements). Capital improvements consist of high-occupancy vehicle (HOV) lanes; transit improvements; traffic flow improvements; park-and-ride and intermodal facilities; and urban freeway, bicycle, and pedestrian facilities. Noncapital improvements consist of rideshare matching and transportation demand management activities derived from the congestion management program.

The future air quality levels projected in the 1997 AQMP and the 1999 Amendment are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the RCPG. The AQMP also assumes that general development projects will include strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation.

Consistency with the projections of employment and population forecasts identified in the Growth Management Chapter of the RCPG argues consistency with the AQMP growth projections, since the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP. As noted above in the discussion of Policy 3.01 of the RCPG, the projected growth in campus population by 2010 is included in the SCAG projections through growth rate assumptions and consideration of the Westwood community population, as well as the City of Los Angeles Subregion as a whole. These projections estimate a population of 4,188,638 in 2010 for the City of Los Angeles Subregion, which includes the population and employment increase of 4,873 persons by 2010 under the 2002 LRDP. Therefore, the 2002 LRDP population increase would be consistent with AQMP attainment forecasts.

Anotber measurement tool in determining consistency with the AQMP is to determine how a project accommodates the expected increase in population or employment. Generally, if a project is planned in a way that results in the minimization of vehicle miles traveled (VMT) both within the project and the community in which it is located, and consequently the minimization of air pollutant emissions, that aspect of the project is consistent with the AQMP.

As noted above with regard to Policies 3.12, 3.13, 3.14, 3.16, and 5.07 of the RCPG, the 2002 LRDP represents infill development on a highly developed campus, utilizing existing infrastructure and public service systems. The campus is centrally located to activity centers throughout the Southern California region, connected by an extensive transportation network. The UCLA campus has successfully implemented a comprehensive TDM Program since 1984 that offers a broad range of services to encourage and assist UCLA commuters in utilizing alternatives to the single-occupancy vehicle. As part of its ongoing TDM Program, UCLA actively provides and promotes: vanpools; carpool matching and parking incentive programs; financial incentives for carpool and vanpool participants; accommodation of the use of other modes of transit, including bicycles, motorcycles, and scooters; alternative work schedules and telecommuting; annual distribution of the UCLA Commuter's Guide; parking control management; and restricting access to main campus parking facilities for on-campus housing residents. The LRDP also contains specific planning objectives aimed at reducing VMT in part through provision of more student housing, and providing alternative methods of transportation, as well as land use policies integrating walkways with building design to encourage use through placement and design. These planning principles would serve to encourage use of transit, reduce the number of vehicle trips and miles traveled, and create furtber opportunities for campus students, faculty, and staff to walk and bike. These programs are consistent with the goals of the AQMP for reducing the emissions associated with new development.

The 2002 LRDP EIR fully addresses air quality impacts resulting from construction and operation of the 2002 LRDP and recommends mitigation measures to reduce the potentially significant impacts. Based on this information, the 2002 LRDP is consistent with the 1997 AQMP and the 1999 Amendment.

4.8.4 Cumulative Impacts

This section evaluates the potential for the 2002 LRDP to result in a significant contribution to cumulative land use impacts resulting from potential incompatibilities between future development and existing land uses, and cumulative impacts associated with the approval of future development that is inconsistent with applicable land use plans or policies adopted for the protection of the environment. The geographic context for the analysis of cumulative land use and planning impacts includes that portion of the City of Los Angeles that is located west of Downtown Los Angeles, south of the Santa Monica Mountains, and north of the I-10 Freeway, which acts as a natural boundary for land use considerations. This area encompasses the Westwood Community Plan area and parts of adjacent community plan areas and contains a mix of land uses, including commercial, residential, industrial, and institutional. The analysis accounts for all anticipated cumulative growth within this geographic area, as represented by full implementation of the City of Los Angeles General Plan Framework in this area and development of the related projects provided by Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Environmental Analysis).

It is anticipated that development of the identified related projects and regional growth in general would result in changes to the existing land use environment in the area through the conversion of vacant land and low-density uses to higher density uses, or through conversions of existing land use (e.g., from residential to commercial). However, it is assumed that this future off-campus development would be consistent with applicable City of Los Angeles General Plan and zoning requirements or subject to an allowable exception; and further subject to CEQA, mitigation requirements, and design review. Therefore, it can be assumed that through these requirements, future development would be substantially compatible with existing land uses. For this reason, cumulative impacts on land use as a result of incompatibilities between existing and future development would be less than significant. However, it could be possible that significant impacts on land use compatibility might occur with respect to one or more of the related projects (or unknown future projects permitted in the area) due to specific issues associated with these projects or their location. Even if the cumulative impact of these projects would be significant, the contribution of the 2002 LRDP to such cumulative land use impacts is less than significant and is thus not cumulatively considerable because development under the 2002 LRDP will be compatible with the land uses that surround it, in light of the continuation of the existing educational land use, and the architecture, design and landscaping policies identified in PP 4.8-1(a) through PP 4.8-1(i). This is considered to be a *less-than-significant* impact.

It is further anticipated that development of the identified related projects and regional growth in general will be reviewed for consistency with adopted land use plans and policies by the City of Los Angeles, in accordance with the requirements of CEQA, the state Zoning and Planning Law, and the state Subdivision Map Act, all of which require findings of plan and policy consistency prior to approval of entitlements for development. For this reason, cumulative impacts associated with inconsistency of future development with adopted plans and policies would be less than significant. In addition, the contribution of the 2002 LRDP to such cumulative impacts is less than significant because, as noted above, development activity proposed under the 2002 LRDP is compatible with surrounding land uses and is also consistent with applicable plans, policies, and regulations. As a result, development under the 2002 LRDP would not contribute to any cumulative impacts associated with plan or policy inconsistency. This is considered to be a *less-than-significant* impact.

4.8.5 References

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4.9 NOISE AND VIBRATION

This section evaluates the potential noise impacts resulting from implementation of the 2002 LRDP. This includes the potential for the 2002 LRDP to cause a substantial temporary and/or permanent increase in ambient noise levels within or around the campus, or to expose people to excessive noise levels. The purpose of this analysis is to evaluate the 2002 LRDP in order to ensure that new uses are located and designed appropriately from a noise perspective and to evaluate the noise impacts of the 2002 LRDP on the surrounding community.

Data used in the preparation of this section were taken from various sources, including measuring and modeling existing and future noise levels at the campus and in the surrounding area. Full bibliographic entries for all reference materials are provided in Section 4.9.5 (References) of this section.

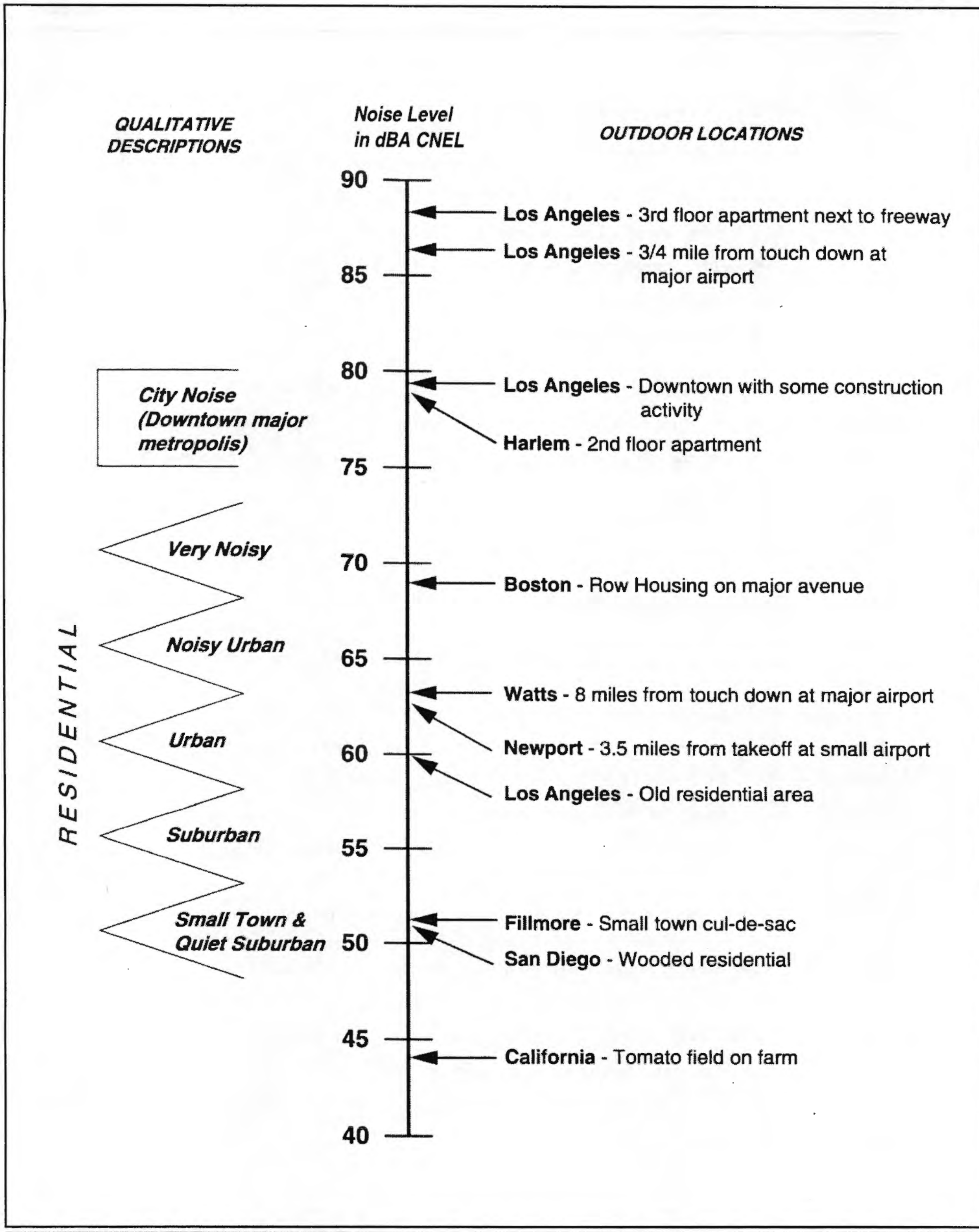
The University received no comment letters related to noise in response to the Notice of Preparation circulated for the project.

4.9.1 Environmental Setting

Fundamentals of Sound and Environmental Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Figure 4.9-1 (Representative Environmental Noise Levels) illustrates representative noise levels for the environment.



Not to Scale

SOURCE: State of California General Plan Guidelines, 1998 10328-07

EIP ASSOCIATES

FIGURE **4.9-1**

Representative Environmental Noise Levels

UCLA 2002 LRDP

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq}, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- CNEL, the Community Noise Equivalent Level, is a 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 P.M. to 7:00 A.M. and an additional 5 dBA weighting during the hours of 7:00 P.M. to 10:00 P.M. to account for noise sensitivity in the evening and nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
- L_{min}, the minimum instantaneous noise level experienced during a given period of time.
- L_{max}, the maximum instantaneous noise level experienced during a given period of time.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 45 dBA, moderate in the 45- to 60-dBA range, and high above 60 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated natural settings that can provide noise levels as low as 20 dBA, and quiet suburban residential streets that can provide noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA).

The City of Los Angeles considers noise levels of less than 70 dBA CNEL to be acceptable for land uses that are sensitive to noise, such as residences, schools, libraries, churches, hospitals, nursing homes, and transient lodging (City of Los Angeles 1998). Noise levels above 70 dBA CNEL are generally considered by the City to be unacceptable for these uses (City of Los Angeles 1998).

When evaluating changes in 24-hour community noise levels, a difference of 3 dBA is a barely perceptible increase to most people (Federal Highway Administration [FHWA] 1980). A 5 dBA increase is readily noticeable, while a difference of 10 dBA would be perceived as a doubling of loudness (FHWA 1980).

Noise levels from a particular source decline as distance to the receptor increases. Other factors, such as the weather and reflecting or shielding also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically "hard" locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically "soft" locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise from stationary or point sources is reduced by about 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels may also be reduced by intervening structures—generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Fundamentals of Environmental Vibration

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. The ground motion caused by vibration is measured as particle velocity in inches per second and, in the U.S., is referenced as vibration decibels (VdB).

The background vibration velocity level in residential and educational areas is usually around 50 VdB (FRA 1998). The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings (FRA 1998).

The general human response to different levels of groundborne vibration velocity levels is described in Table 4.9-1 (Human Response to Different Levels of Groundborne Vibration).

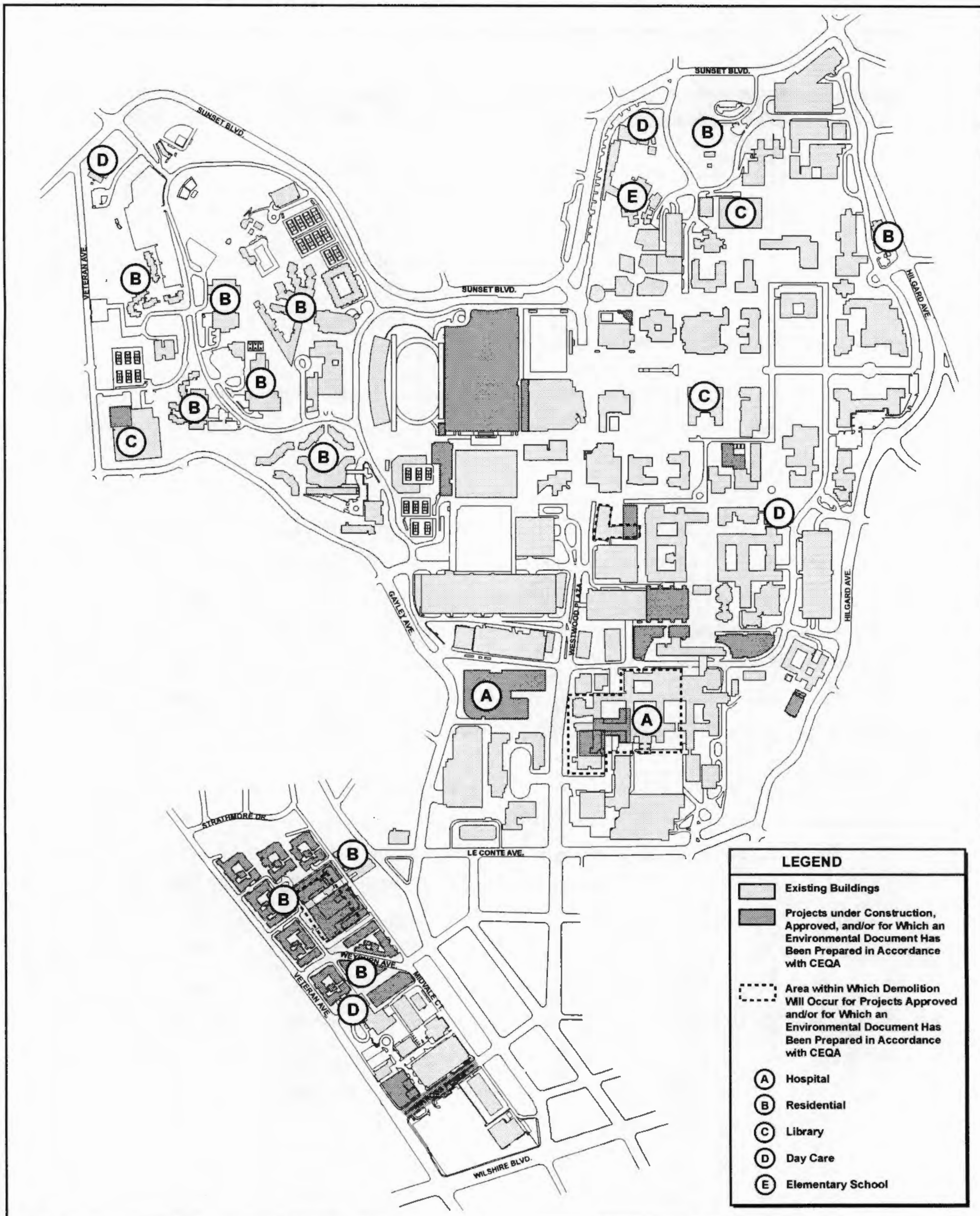
Table 4.9-1 Human Response to Different Levels of Groundborne Vibration	
Vibration Velocity Level	*Human Reaction*
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Source: Federal Railroad Administration, 1998.

Existing Ambient Daytime Noise Levels

Land uses in the vicinity of the UCLA campus include commercial, institutional, and residential uses. Various uses within the campus that are sensitive to noise are illustrated in Figure 4.9-2 (On-Campus Sensitive Noise Receptors). The single-family residential neighborhood of Bel Air is located north of the campus. South of Le Conte Avenue is the commercial district of Westwood Village, comprised of retail shops, movie theaters, restaurants, and office buildings. East of Hilgard Avenue are sorority houses, apartment buildings, and the single-family residential Holmby-Westwood neighborhood. West of Gayley Avenue is the North Village multi-family residential neighborhood, primarily comprised of fraternity houses and apartment buildings. West of Veteran Avenue is the single-family Westwood Hills neighborhood and the Los Angeles National Cemetery. The campus itself presently includes institutional, office, student housing, and recreational uses. Although other noise sources occur in the vicinity, vehicular traffic is the primary source of noise within, and around, the campus.

Existing ambient daytime noise levels were measured at seventeen selected locations within and around the campus in order to identify representative noise levels in various areas during the regular session. These locations are identified in Figure 4.9-3 (Noise Measurement Locations). Noise measurement locations 1 through 8 are the same as those from the 1990 LRDP EIR. The nine new noise measurement locations were selected by campus staff to provide additional information regarding existing ambient daytime noise levels within the campus and surrounding area. The noise levels were measured using a Larson-Davis Model 720 precision sound level meter, which satisfies the American National Standards Institute (ANSI) for general environmental noise measurement instrumentation. The average noise levels and sources of noise measured at each location are identified in Table 4.9-2 (Existing Daytime Noise Levels at Selected On- and Off-Campus Locations). These daytime noise levels are characteristic of an urban residential environment.



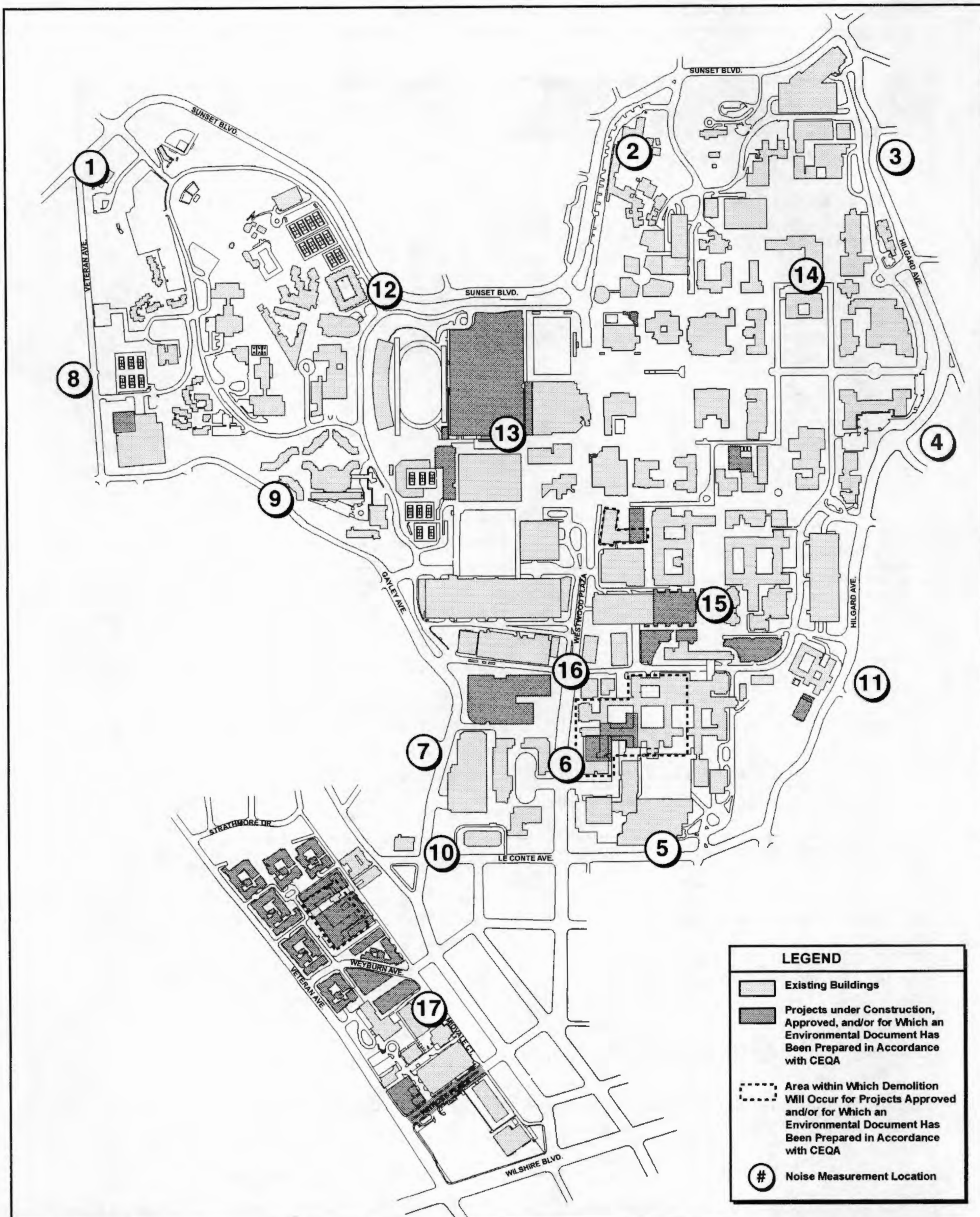
SOURCE: UCLA

10328-07

EIP ASSOCIATES

FIGURE 4.9-2

On-Campus Sensitive Noise Receptors



Not to Scale

SOURCE: UCLA

10328-07

EIP ASSOCIATES

FIGURE **4.9-3**

Noise Measurement Locations

UCLA 2002 LRDP

Table 4.9-2 Existing Daytime Noise Levels at Selected On- and Off-Campus Locations

Noise Measurement Location	Primary Noise Sources	Noise Level Statistics		
		L_{eq}	L_{min}	L_{max}
1. University Day Care Center—Northwest zone	Traffic on Sunset Boulevard, children playing	68.4	50.1	88.1
2. University Elementary School—Core Campus zone	Traffic on Sunset Boulevard	67.7	50.3	88.5
3. Hilgard Avenue at Comstock Avenue (single-family residence)	Traffic on Hilgard Avenue	66.9	50.0	81.1
4. Hilgard Avenue at Strathmore Avenue (single-family residence)	Traffic on Hilgard Avenue	67.4	49.6	80.2
5. UCLA campus—Health Sciences zone	Traffic on Le Conte Avenue, pedestrians	67.6	53.5	81.9
6. UCLA Medical Center—Health Sciences zone	Traffic on Westwood Plaza, pedestrians	67.5	57.8	80.8
7. Gayley Avenue at Landfair Avenue (multi-family residence)	Traffic on Gayley Avenue	69.6	57.4	88.9
8. Veteran Avenue at Cashmere Street (single-family residence)	Traffic on Veteran Avenue	73.9	48.2	84.0
9. UCLA campus—Northwest zone	Traffic on Gayley Avenue	67.4	52.9	86.5
10. UCLA campus—Bridge zone	Traffic on Gayley Avenue and Le Conte Avenue, pedestrians	66.8	57.2	81.6
11. Hilgard Avenue at Manning Avenue (multi-family residence)	Traffic on Hilgard Avenue	71.5	52.5	83.4
12. UCLA campus—Northwest zone	Traffic on Sunset Boulevard, Charles E. Young Drive North, and Charles E. Young Drive East	66.9	56.8	84.3
13. UCLA campus—Central zone (Bruin Walk)	Students and sport activities	65.0	55.1	81.5
14. UCLA campus—Core Campus zone (Bunche Hall)	Automobiles and pedestrians	57.7	59.7	74.8
15. UCLA campus—Core Campus zone (Court of Sciences)	Students	63.2	59.7	74.8
16. UCLA campus—Campus Services zone	Traffic on Westwood Plaza and Charles E. Young Drive South, cogeneration plant, pedestrians	68.9	62.3	86.0
17. UCLA campus—Southwest zone	Traffic at parking structure 32, pedestrians	60.5	56.6	80.8

Source: EIP Associates, 2001.

Existing Roadway Noise Levels On Campus

Existing 24-hour noise levels have been calculated for various roadways around and within the UCLA campus. This task was accomplished using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from the UCLA Long Range Development Plan Transportation Systems Analysis (included as Appendix 4). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by Caltrans (Hendriks 1987). The Caltrans data show that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels (Hendriks 1987). The calculated noise levels are presented in Table 4.9-3 (Existing Roadway Noise Levels On Campus—Regular Session) along with the distances to various noise level contours for the regular session. Table 4.9-4 (Existing Roadway Noise Levels On Campus—Summer Session) identifies the existing roadway noise levels and noise level contours on the campus during the summer session. These roadway noise levels include truck and automotive traffic associated with existing construction activities occurring at the UCLA campus.

Table 4.9-3 Existing Roadway Noise Levels On Campus—Regular Session

Roadway Segment	Reference CNEL at 75 Feet[1]	Distance to Noise Contour[1]		
		70 CNEL	65 CNEL	60 CNEL
Sunset Boulevard, Veteran Avenue to Bellagio Road	68.0	55	118	255
Sunset Boulevard, Bellagio Road to Westwood Boulevard	67.5	51	110	238
Sunset Boulevard, Westwood Boulevard to Stone Canyon Road	67.3	50	108	232
Sunset Boulevard, Stone Canyon Road to Copa de Oro Road	67.0	47	102	220
Hilgard Avenue, Sunset Boulevard to Wyton Drive	63.1	26	56	120
Hilgard Avenue, Wyton Drive to Westholme Avenue	63.6	—[2]	60	130
Hilgard Avenue, Westholme Avenue to Manning Avenue	64.7	33	71	154
Hilgard Avenue, Manning Avenue to Le Conte Avenue	64.5	32	69	149
Le Conte Avenue, Gayley Avenue to Westwood Boulevard	62.6	24	52	111
Le Conte Avenue, Westwood Boulevard to Tiverton Avenue	62.6	24	52	112
Le Conte Avenue, Tiverton Avenue to Hilgard Avenue	64.6	33	70	152
Gayley Avenue, Le Conte Avenue to Strathmore Place	63.8	29	63	135
Gayley Avenue, Strathmore Place to Veteran Avenue	61.7	21	45	97
Veteran Avenue, Sunset Boulevard to Gayley Avenue	63.0	26	56	120
Westwood Plaza, north of Le Conte Avenue	62.2	—[2]	49	105
Westwood Boulevard, south of Sunset Boulevard	58.2	—[2]	26	57
Strathmore Place, east of Gayley Avenue	62.5	—[2]	51	109
Bellagio Road, south of Sunset Boulevard	57.7	—[2]	24	53
Stone Canyon Road, south of Sunset Boulevard	55.7	—[2]	18	39
Wyton Drive, west of Hilgard Avenue	58.1	12	26	56
Westholme Avenue, west of Hilgard Avenue	59.0	14	30	64

1. Distances are in feet from roadway centerline. The identified noise level at 75 feet from the roadway centerline is for reference purposes only as a point from which to calculate the noise contour distances. It does not reflect an actual building location or potential impact location.
2. Noise contour is located within the roadway lanes.

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 8.

Table 4.9-4 Existing Roadway Noise Levels On Campus—Summer Session

Roadway Segment	Reference CNEL at 75 Feet[1]	Distance to Noise Contour[1]		
		70 CNEL	65 CNEL	60 CNEL
Sunset Boulevard, Veteran Avenue to Bellagio Road	67.9	54	117	253
Sunset Boulevard, Bellagio Road to Westwood Boulevard	67.3	50	107	230
Sunset Boulevard, Westwood Boulevard to Stone Canyon Road	67.2	49	105	227
Sunset Boulevard, Stone Canyon Road to Copa de Oro Road	67.0	47	102	219
Hilgard Avenue, Sunset Boulevard to Wyton Drive	62.8	25	54	116
Hilgard Avenue, Wyton Drive to Westholme Avenue	63.4	—[2]	58	126
Hilgard Avenue, Westholme to Manning Avenue	63.5	—[2]	60	129
Hilgard Avenue, Manning Avenue to Le Conte Avenue	63.5	—[2]	60	129
Le Conte Avenue, Gayley Avenue to Westwood Boulevard	62.3	23	50	108
Le Conte Avenue, Westwood Boulevard to Tiverton Avenue	62.4	23	50	109
Le Conte Avenue, Tiverton Avenue to Hilgard Avenue	61.0	19	41	88
Gayley Avenue, Le Conte Avenue to Strathmore Place	63.6	28	61	131
Gayley Avenue, Strathmore Place to Veteran Avenue	62.2	23	49	106
Veteran Avenue, Sunset Boulevard to Gayley Avenue	63.7	29	62	133
Westwood Plaza, north of Le Conte Avenue	62.7	24	53	113
Westwood Boulevard, south of Sunset Boulevard	57.5	—[2]	—[2]	51
Strathmore Place, east of Gayley Avenue	60.7	—[2]	39	84
Bellagio Road, south of Sunset Boulevard	56.7	—[2]	21	45
Stone Canyon Road, south of Sunset Boulevard	54.9	—[2]	16	34
Wyton Drive, west of Hilgard Avenue	57.2	—[2]	23	49
Westholme Avenue, west of Hilgard Avenue	58.2	12	26	57

1. Distances are in feet from roadway centerline. The identified noise level at 75 feet from the roadway centerline is for reference purposes only as a point from which to calculate the noise contour distances. It does not reflect an actual building location or potential impact location.
2. Noise contour is located within the roadway lanes.

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 8.

Existing Roadway Noise Levels Off Campus

Existing roadway noise levels were also calculated for the roadway links in the vicinity of the campus that have noise sensitive uses facing the roadways. As with on-campus noise levels, this was accomplished using the FHWA Highway Noise Prediction Model and traffic volumes from the UCLA Long Range Development Plan Transportation Systems Analysis (included as Appendix 4). The average daily noise levels along these roadway segments are presented in Table 4.9-5 (Existing Roadway Noise Levels Off Campus—Regular Session) for the regular session and Table 4.9-6 (Existing Roadway Noise Levels Off Campus—Summer Session) for the summer session.

Table 4.9-5 Existing Roadway Noise Levels Off Campus—Regular Session

Roadway Segment	Noise Sensitive Uses	dBA CNEL
Wilshire Boulevard, Glendon Avenue to Malcolm Avenue	Multi-Family	66.1
Wilshire Boulevard, Malcolm Avenue to Westholme Avenue	Multi-Family	66.6
Wilshire Boulevard, Westholme Avenue to Warner Avenue	Multi-Family Church	66.6 67.2
Wilshire Boulevard, Warner Avenue to Beverly Glen Boulevard	Multi-Family Church	68.6 69.0
Wilshire Boulevard, east of Beverly Glen Boulevard	Multi-Family	69.4
Sunset Boulevard, west of Church Street	Single Family	66.4
Sunset Boulevard, Church Street to Sepulveda Boulevard	Single Family	65.8
Sunset Boulevard, Sepulveda Boulevard to Veteran Avenue	Single Family	65.6
Sunset Boulevard, Veteran Avenue to Bellagio Road	Single Family	65.9
Sunset Boulevard, Bellagio Road to Westwood Boulevard	Single Family	57.5
Sunset Boulevard, Westwood Boulevard to Stone Canyon Road	Single Family High School Elementary School/Day Care	67.3 65.3 67.3
Sunset Boulevard, Stone Canyon Road to Copa de Oro Road	Single Family	67.0
Sunset Boulevard, Copa de Oro Road to Bel-Air Road	Single Family	67.0
Sunset Boulevard, Bel-Air Road to Beverly Glen Boulevard	Single Family	67.9
Sunset Boulevard, east of Beverly Glen Boulevard	Single Family	66.0
Hilgard Avenue, Sunset Boulevard to Wyton Drive	Single Family	63.1
Hilgard Avenue, Wyton Drive to Westholme Avenue	Multi-Family	63.6
Hilgard Avenue, Westholme Avenue to Manning Avenue	Church Multi-Family	67.9 64.7
Hilgard Avenue, Manning Avenue to Le Conte Avenue	Multi-Family	67.1
Hilgard Avenue, Le Conte Avenue to Weyburn Avenue	Multi-Family Church	65.0 65.0
Hilgard Avenue, Weyburn Avenue to Lindbrook Drive	Multi-Family	64.7
Le Conte Avenue, east of Hilgard Avenue	Multi-Family	61.3
Gayley Avenue, Weyburn Avenue to Le Conte Avenue	Multi-Family	66.6
Gayley Avenue, Le Conte Avenue to Strathmore Place	Multi-Family	66.5
Gayley Avenue, Strathmore Place to Veteran Avenue	Multi-Family	64.4
Strathmore Place, west of Gayley Avenue	Multi-Family	60.6
Levering Avenue, Montana Avenue to Veteran Avenue	Multi-Family	58.3
Levering Avenue, Veteran Avenue to Le Conte Avenue	Multi-Family	58.2
Levering Avenue, Le Conte Avenue to Weyburn Avenue	Multi-Family	66.1
Veteran Avenue, Sunset Boulevard to Gayley Avenue	Single and Multi-Family	63.0
Veteran Avenue, Gayley Avenue to Levering Avenue	Multi-Family	61.7
Veteran Avenue, Levering Avenue to Wilshire Boulevard	Multi-Family	59.6
Veteran Avenue, Wilshire Boulevard to Ohio Avenue	Multi-Family	66.7

Refer to Volume 3, Chapter II (Text Changes)

Table 4.9-5 Existing Roadway Noise Levels Off Campus—Regular Session

Roadway Segment	Noise Sensitive Uses	dBA CNEL
Veteran Avenue, Ohio Avenue to Santa Monica Boulevard	Multi-Family	64.0
Montana Avenue, Veteran Avenue to Levering Avenue	Multi-Family	65.3
Montana Avenue, Levering Avenue to Sepulveda Boulevard	Single Family	63.8
Montana Avenue, west of Sepulveda Boulevard	Single Family	61.3
Sepulveda Boulevard, Ovada Place to Sunset Boulevard	Single Family	72.1
Sepulveda Boulevard, Sunset Boulevard to Montana Avenue	Multi-Family	60.8
Sepulveda Boulevard, Wilshire Boulevard to Ohio Avenue	Multi-Family	69.3
Sawtelle Boulevard, Ohio Avenue to Santa Monica Boulevard	Multi-Family	63.9
Sawtelle Boulevard, south of Santa Monica Boulevard	Multi-Family	65.0
Weyburn Avenue, Glendon Avenue to Westwood Boulevard	Multi-Family	61.1
Weyburn Avenue, Westwood Boulevard to Gayley Avenue	Multi-Family	63.3
Lindbrook Avenue, Westwood Boulevard to Gayley Avenue	Multi-Family	63.6
Wyton Drive, east of Hilgard Avenue	Single Family	55.1
Westholme Avenue, east of Hilgard Avenue	Single Family	57.2
Manning Avenue, east of Hilgard Avenue	Single Family	54.3
Beverly Glen Boulevard, Wilshire Boulevard to Comstock Avenue	Single Family	63.5
Beverly Glen Boulevard, Comstock Avenue to Sunset Boulevard	Single Family	52.9
Beverly Glen Boulevard, Sunset Boulevard to Greendale Drive	Single Family	71.6
Beverly Glen Boulevard, Greendale Drive to Mulholland Drive	Single Family	72.0
Ohio Avenue, Westwood Boulevard to Veteran Avenue	Multi-Family	68.1
Ohio Avenue, Veteran Avenue to Sepulveda Boulevard	Multi-Family	68.9
Ohio Avenue, Sepulveda Boulevard to Beloit Avenue	Multi-Family	71.9
Ohio Avenue, Beloit Avenue to Sawtelle Boulevard	Multi-Family	68.5
Ohio Avenue, west of Sawtelle Boulevard	Multi-Family	68.3
Bellagio Road, Chalon Road to Sunset Boulevard	Single Family	61.4
Bel-Air Road, north of Sunset Boulevard	Single Family	58.0

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 8.

Table 4.9-6 Existing Roadway Noise Levels Off Campus—Summer Session

Roadway Segment	Noise Sensitive Uses	dBA CNEL
Wilshire Boulevard, Glendon Avenue to Malcolm Avenue	Multi-Family	65.9
Wilshire Boulevard, Malcolm Avenue to Westholme Avenue	Multi-Family	66.4
Wilshire Boulevard, Westholme Avenue to Warner Avenue	Multi-Family Church	66.5 67.1
Wilshire Boulevard, Warner Avenue to Beverly Glen Boulevard	Multi-Family Church	68.5 68.8
Wilshire Boulevard, east of Beverly Glen Boulevard	Multi-Family	69.3
Sunset Boulevard, west of Church Street	Single Family	67.1

Table 4.9-6 Existing Roadway Noise Levels Off Campus—Summer Session		
Roadway Segment	Noise Sensitive Uses	dBA CNEL
Sunset Boulevard, Church Street to Sepulveda Boulevard	Single Family	65.3
Sunset Boulevard, Sepulveda Boulevard to Veteran Avenue	Single Family	66.0
Sunset Boulevard, Veteran Avenue to Bellagio Road	Single Family	65.9
Sunset Boulevard, Bellagio Road to Westwood Boulevard	Single Family	57.3
Sunset Boulevard, Westwood Boulevard to Stone Canyon Road	Single Family High School Elementary School/Day Care	67.2 65.2 67.2
Sunset Boulevard, Stone Canyon Road to Copa de Oro Road	Single Family	67.0
Sunset Boulevard, Copa de Oro Road to Bel-Air Road	Single Family	66.9
Sunset Boulevard, Bel-Air Road to Beverly Glen Boulevard	Single Family	67.9
Sunset Boulevard, east of Beverly Glen Boulevard	Single Family	66.2
Hilgard Avenue, Sunset Boulevard to Wyton Drive	Single Family	62.8
Hilgard Avenue, Wyton Drive to Westholme Avenue	Multi-Family	63.4
Hilgard Avenue, Westholme Avenue to Manning Avenue	Church Multi-Family	66.7 63.5
Hilgard Avenue, Manning Avenue to Le Conte Avenue	Multi-Family	66.1
Hilgard Avenue, Le Conte Avenue to Weyburn Avenue	Multi-Family Church	64.6 64.6
Hilgard Avenue, Weyburn Avenue to Lindbrook Drive	Multi-Family	64.2
Le Conte Avenue, east of Hilgard Avenue	Multi-Family	60.2
Gayley Avenue, Weyburn Avenue to Le Conte Avenue	Multi-Family	67.1
Gayley Avenue, Le Conte Avenue to Strathmore Place	Multi-Family	66.3
Gayley Avenue, Strathmore Place to Veteran Avenue	Multi-Family	64.9
Strathmore Place, west of Gayley Avenue	Multi-Family	58.4
Levering Avenue, Montana Avenue to Veteran Avenue	Multi-Family	58.2
Levering Avenue, Veteran Avenue to Le Conte Avenue	Multi-Family	58.0
Levering Avenue, Le Conte Avenue to Weyburn Avenue	Multi-Family	66.6
Veteran Avenue, Sunset Boulevard to Gayley Avenue	Single and Multi-Family	63.7
Veteran Avenue, Gayley Avenue to Levering Avenue	Multi-Family	62.3
Veteran Avenue, Levering Avenue to Wilshire Boulevard	Multi-Family	59.5
Veteran Avenue, Wilshire Boulevard to Ohio Avenue	Multi-Family	66.7
Veteran Avenue, Ohio Avenue to Santa Monica Boulevard	Multi-Family	63.1
Montana Avenue, Veteran Avenue to Levering Avenue	Multi-Family	64.0
Montana Avenue, Levering Avenue to Sepulveda Boulevard	Single Family	62.7
Montana Avenue, west of Sepulveda Boulevard	Single Family	61.0
Sepulveda Boulevard, Ovada Place to Sunset Boulevard	Single Family	72.4
Sepulveda Boulevard, Sunset Boulevard to Montana Avenue	Multi-Family	61.0
Sepulveda Boulevard, Wilshire Boulevard to Ohio Avenue	Multi-Family	69.6
Sawtelle Boulevard, Ohio Avenue to Santa Monica Boulevard	Multi-Family	64.1

Refer to Volume 3, Chapter II (Text Changes)

Table 4.9-6 Existing Roadway Noise Levels Off Campus—Summer Session

Roadway Segment	Noise Sensitive Uses	dBA CNEL
Sawtelle Boulevard, south of Santa Monica Boulevard	Multi-Family	65.4
Weyburn Avenue, Glendon Avenue to Westwood Boulevard	Multi-Family	62.9
Weyburn Avenue, Westwood Boulevard to Gayley Avenue	Multi-Family	65.5
Lindbrook Avenue, Westwood Boulevard to Gayley Avenue	Multi-Family	63.0
Wyton Drive, east of Hilgard Avenue	Single Family	54.9
Westholme Avenue, east of Hilgard Avenue	Single Family	56.5
Manning Avenue, east of Hilgard Avenue	Single Family	51.4
Beverly Glen Boulevard, Wilshire Boulevard to Comstock Avenue	Single Family	63.2
Beverly Glen Boulevard, Comstock Avenue to Sunset Boulevard	Single Family	53.2
Beverly Glen Boulevard, Sunset Boulevard to Greendale Drive	Single Family	71.5
Beverly Glen Boulevard, Greendale Drive to Mulholland Drive	Single Family	71.1
Ohio Avenue, Westwood Boulevard to Veteran Avenue	Multi-Family	67.3
Ohio Avenue, Veteran Avenue to Sepulveda Boulevard	Multi-Family	68.3
Ohio Avenue, Sepulveda Boulevard to Beloit Avenue	Multi-Family	71.5
Ohio Avenue, Beloit Avenue to Sawtelle Boulevard	Multi-Family	68.6
Ohio Avenue, west of Sawtelle Boulevard	Multi-Family	68.4
Bellagio Road, Chalon Road to Sunset Boulevard	Single Family	62.3
Bel-Air Road, north of Sunset Boulevard	Single Family	58.1

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 8.

During the public scoping meeting for the 2002 LRDP, residents of the Holmby-Westwood neighborhood raised comments concerning the existing conditions at the bus terminal located on Hilgard Avenue near Strathmore Avenue and its effects on local traffic, air quality, and noise. The residents commented that a large number of buses stop at this location and that many of the buses queue in the early morning/late night, allowing their engines to idle for long periods of time.

Because the campus and Westwood Village are destinations for a large number of public transit commuters, several public bus companies have located the beginning/end of some of their routes at the Hilgard Bus Terminal. However, the campus does not own or operate any of these bus lines, and the campus does not have the authority to set or change bus schedules.

The campus has a temporary pilot program to subsidize the bus fares of campus members who ride one of the bus lines that use the Hilgard Bus Terminal. This transit pass program—called BruinGo—is implemented by the Santa Monica Big Blue Bus line. However, the BruinGo program has not necessitated the addition of any scheduled buses at the Hilgard Bus Terminal. Instead, it has utilized existing capacity.

The campus is sensitive to local neighbors and is working with local government officials and the bus companies to address the traffic, air quality, and noise issues raised by the Holmby-Westwood neighborhood residents regarding the existing operations at the Hilgard Bus Terminal. As part of this effort, the Culver City Bus Company has re-routed its #6 bus into the campus rather than to the Hilgard Bus Terminal. The campus has also collaborated with the Big Blue Bus line to provide an express bus up and down Westwood Boulevard between National Boulevard and the campus. This bus operates during the peak morning and evening peak commute periods on school days and drives directly into the Westwood Plaza Ackerman Union turn-around on the campus. Both of these re-routing efforts have reduced the volume of buses at the Hilgard Bus Terminal. The campus will continue to work with local government and bus companies to assist in the development of alternatives that address the needs of all affected entities.

Helicopter Noise

Noise is generated by helicopter operations serving the UCLA Medical Center from its present helipad location on the roof of the Marian Davies Children's Center, located northeast of the Le Conte Avenue and Hilgard Avenue intersection. These operations presently average five to six flights per week and are limited to emergency patient transport and to support the medical center's organ transplant program. Nonemergency flights are not allowed. In late 2004/early 2005, the helipad will be relocated to the roof of the Academic Health Center replacement hospital facility northeast of the Gayley Avenue and Le Conte Avenue intersection. The estimated annual and daily 24-hour average noise level contours for the relocated helicopter operations are illustrated in Figure 4.9-4 (Estimated Average Helicopter Noise Contours). These contours assume an average of two arrivals and two departures per day, which is more than the current average of five to six flights per week. The noise impacts associated with the relocation of the helipad were analyzed in the certified EIR for the UCLA Academic Health Center Facilities Reconstruction Plan (UCLA 1998).

Construction Noise

Construction of several new facilities is presently occurring in the Core Campus, Central, Health Sciences, and Southwest Campus zones. Noise is generated on a daily basis by these activities, although it is primarily isolated in the immediate vicinity of each construction site. The actual noise levels generated by construction varies by site and on a daily and hourly basis, depending on the activity that is occurring, and the types and number of pieces of equipment that are operating.

The U.S. Environmental Protection Agency (U.S. EPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. These data are presented in Table 4.9-7 (Noise Ranges of Typical Construction Equipment) and Table 4.9-8 (Typical Outdoor Construction Noise Levels). These noise levels diminish rapidly with distance from the construction site at a rate of approximately 6 to 7.5 dBA per doubling of distance. For example, a noise level of 84 dBA measured at 50 feet from the noise source to the receptor would reduce to 78 dBA at 100 feet from the source to the receptor, and reduce by another 6 dBA to 72 dBA at 200 feet from the source to the receptor. The existing construction activities do not involve any actions such as pile driving or blasting that result in the generation of severe noise levels over a wide area.

Table 4.9-7 Noise Ranges of Typical Construction Equipment

Equipment	Noise Levels in dBA L_{eq} at 50 Feet[1]
Front Loader	73 to 86
Trucks	82 to 95
Cranes (moveable)	75 to 88
Cranes (derrick)	86 to 89
Vibrator	68 to 82
Saws	72 to 82
Pneumatic Impact Equipment	83 to 88
Jackhammers	81 to 98
Pumps	68 to 72
Generators	71 to 83
Compressors	75 to 87
Concrete Mixers	75 to 88
Concrete Pumps	81 to 85
Back Hoe	73 to 95
Pile Driving (peaks)	95 to 107
Tractor	77 to 98
Scraper/Grader	80 to 93
Paver	85 to 88

1. Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.

Source: U.S. EPA, 1971

Table 4.9-8 Typical Outdoor Construction Noise Levels

Construction Phase	Noise Level at 50 Feet dBA L_{eq}	Noise Level at 50 Feet with Mufflers dBA L_{eq}
Ground Clearing	84	82
Excavation, Grading	89	86
Foundations	78	77
Structural	85	83
External Finishing	89	86

Source: U.S. EPA, 1971

Special Event Noise

Noise is also generated by occasional special events at the UCLA campus. These include daytime special events, such as athletic meets at Drake Track & Field Stadium and the "Festival of Books" in the spring, and nighttime special events, such as outdoor concerts at the Sunset Canyon Recreation Center within the Northwest Zone. The loudest of these special events are the outdoor concerts. Specific noise levels for each concert event cannot be defined since sound level expectations are different for various types of music, each act provides their own sound equipment, and each act selects the location of the speakers. In general, country music is presented at average sound levels in audience areas of approximately 90 dBA L_{eq}, while rock music typically averages sound levels of approximately 105 dBA L_{eq}. The noise levels generated by the special events primarily affect the residential uses within the Northwest zone and could also be audible from residential neighborhoods to the north and west. The operating practice for events at the Sunset Canyon Recreation Center involves amplified sound not being permitted past 9:00 P.M. Sunday through Thursday or past 10:00 P.M. on Friday and Saturday.

Existing Campus Noise Control

The existing noise levels within the campus and surrounding vicinity identified in Tables 4.9-2 through 4.9-8 could be substantially higher except that the UCLA campus implements numerous programs to reduce on-campus noise levels and motor vehicle trips (thereby reducing associated off-campus noise levels). These programs are discussed below.

Stationary Source Noise Controls

In order to provide a relatively quiet environment on the campus that is conducive to the educational process, all new stationary sources of noise recently constructed and operated within the UCLA campus have been shielded from nearby noise-sensitive uses (such as classrooms and faculty offices) as part of the new building design. Stationary sources that generate higher noise levels [such as the Energy System Facility (ESF)] have incorporated special noise-reducing measures in accordance with mitigation measures adopted in conjunction with individual project approval.

Land Use Buffering

The UCLA campus provides a landscaped buffer along the western, northern, and eastern edges of the main campus. These buffers increase the distance between on-campus uses and the surrounding area and provide an acoustically soft environment to further reduce noise levels. They also reduce the noise levels that are generated in the surrounding area (primarily roadway noise) that are heard within the main campus. Likewise, they reduce the noise levels that are generated within the main campus that are heard in the surrounding area.

Construction Noise Controls

When necessary, the UCLA campus limits the hours of exterior construction activities from 7:00 A.M. to 9:00 P.M. Monday through Friday and 8:00 A.M. to 6:00 P.M. on Saturday, consistent with the City of Los Angeles Construction Noise Ordinance (City of Los Angeles 1973). Transportation routes are prescribed for all construction traffic to minimize the impact of this traffic (including noise impacts) on the surrounding community.

Vehicular Traffic Noise Controls

The UCLA campus is well served by several modes of alternative transportation, including public bus services and a campus-operated shuttle bus service. The campus also implements a Transportation Demand Management (TDM) Program that facilitates and promotes the use of transit, carpools, vanpools, and bicycling. While these conditions were not implemented to reduce noise levels, they do have the positive effect of reducing the number of motor vehicle trips that might otherwise be generated in association with the UCLA campus. By reducing the number of potential motor vehicle trips, the potential noise levels that could be experienced in the surrounding vicinity are, likewise, reduced.

Existing Vibration Environment

Aside from seismic events, the greatest regular sources of groundborne vibration at the UCLA campus and within the immediate vicinity are construction activities and roadway truck traffic. At the time that this EIR was prepared, no construction activities likely to generate high groundborne vibration velocity levels (e.g., demolition, pile driving, or blasting) were occurring. Heavy trucks are currently transporting materials to and from the construction sites within the UCLA campus. Because of the constrained nature of access to and from the campus (i.e., due to the presence of residential streets, a cemetery, the Santa Monica Mountains, and Westwood Village) and as a practical matter, Wilshire Boulevard, Sunset Boulevard, Gayley Avenue, Veteran Avenue, and Hilgard Avenue provide the primary access routes for construction vehicles. These trucks typically generate groundborne vibration velocity levels of around 63 VdB. These levels could reach 72 VdB where trucks pass over bumps in the road.

Construction contract specification for on-campus construction projects include measures to ensure coordination between construction activities and the particular vibration sensitivities of adjacent/nearby uses. Existing campus facilities that accommodate sensitive research uses are carefully monitored to minimize adverse vibration effects.

4.9.2 Regulatory Framework

Federal

Federal agencies that have developed noise standards include the Federal Highway Administration (FHWA), the Department of Housing and Urban Development (HUD), the Federal Interagency Committee on Urban Noise (FICUN), and the Federal Aviation Administration (FAA). Of these, only the noise standards adopted by the FAA are applicable to the UCLA campus.

The FAA has prepared guidelines for acceptable noise exposure in its Code of Federal Regulations (CFR) Part 150 Noise Compatibility Planning program. According to the Part 150 guidelines, exterior aircraft exposures of 65 dBA CNEL or less and an interior exposure 45 dBA CNEL or less are considered acceptable for residential uses.[18] These standards apply to the operation of the heliport at the UCLA campus.

State

Title 24 of the California Code of Regulations codifies Sound Transmission Control requirements, which establishes uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA CNEL in any habitable room of new dwellings. Dwellings are to be designed so that interior noise levels will meet this standard for at least ten years from the time of building permit application. This standard applies to all new student housing developed within the UCLA campus.

The California Airport Noise regulations, contained in the California Code of Regulations, Title 21, establish an airport noise compatibility standard of 65 dBA CNEL. This standard is intended to ensure an interior noise level of 45 dBA CNEL in residences, assuming standard construction practices. These standards apply to the operation of the heliport on the UCLA campus.

[18] Although the noise standards identified by the FAA are based on Day-Night Average (L_{dn}) levels, CNEL is considered to be equivalent to L_{dn} and is used for consistency in this EIR.

4.9.3 Project Impacts and Mitigation

Analytic Method

The analysis in this section focuses on the nature and magnitude of the change in the noise environment associated with implementation of the 2002 LRDP. This implementation would result in an increase in the on-campus population of students, academic and staff employees, and visitors for both the regular and summer sessions. The primary sources of noise associated with the 2002 LRDP would be construction activities for the 1.71 million gsf remaining and approved under the 1990 LRDP (reallocated among the eight existing campus zones) to address existing and future program needs, as well as the space requirements associated with an increased student enrollment and increased campus-related traffic volumes associated with the additional students, employees, and visitors. Secondary sources of noise would include new stationary sources (such as heating, ventilation, and air conditioning units) and increased human activity throughout the campus. The net increase in campuswide noise levels generated by these activities and other sources have been quantitatively estimated and compared to applicable noise standards and thresholds of significance.

Construction Noise Levels

Construction noise levels were estimated by data published by the U.S. EPA. Potential noise levels are identified for on- and off-campus locations that are sensitive to noise, including residences, medical buildings, and school facilities.

Roadway Noise Levels

Roadway noise levels for on- and off-campus locations were calculated using the FHWA Highway Noise Prediction Model and traffic volumes from the UCLA Long Range Development Plan Transportation Systems Analysis (included as Appendix 4). The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by Caltrans.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on noise if it would result in any of the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airstrip, expose people residing or working in the project area to excessive noise levels
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels

The applicable federal and State interior noise standards for helicopter noise levels within residential dwellings are both 45 dBA CNEL. The State standard for interior noise levels within new dwellings other than detached single-family dwellings (such as dormitories) is also 45 dBA CNEL.

The CEQA Guidelines do not define the levels at which groundborne vibration or groundborne noise are considered "excessive." This analysis uses the Federal Railway Administration's vibration impact thresholds for sensitive buildings, residences, and institutional land uses. These thresholds are 65 VdB at buildings where vibration would interfere with interior operations (e.g., sensitive on-campus research buildings), 80 VdB at residences and buildings where people normally sleep (e.g., student housing buildings and nearby residences), and 83 VdB at other institutional buildings (FRA 1998).

The CEQA Guidelines also do not define the levels at which permanent and temporary increases in ambient noise are considered "substantial." For the purposes of this analysis, noise impacts would be considered significant if the project resulted in the following:

- A permanent (i.e., long term operational) increase of 5 dBA CNEL over ambient noise levels at any on-campus or off-campus noise-sensitive land use. This threshold is consistent with the City of Los Angeles' *Draft CEQA Thresholds Guide* thresholds for operational noise (City of Los Angeles 1998).
- A permanent (i.e., long term operational) increase of 3 dBA CNEL over ambient noise levels at any on-campus or off-campus noise-sensitive land use location where the future resulting noise level would exceed 70 dBA CNEL (i.e., the noise levels would be considered unacceptable by the City of Los Angeles). This threshold is consistent with the City of Los Angeles' *Draft CEQA Thresholds Guide* thresholds for operational noise (City of Los Angeles 1998).

- Construction activities lasting more than one day that increase the ambient noise levels by 10 dBA or more at any on-campus or off-campus noise-sensitive location. This is consistent with the City of Los Angeles' *Draft L.A. CEQA Thresholds Guide* threshold for construction noise impacts (City of Los Angeles 1998).

As discussed previously in this section, a noise level increase of 3 dBA is barely perceptible to most people, 5 dBA increase is readily noticeable, and a difference of 10 dBA would be perceived as a doubling of loudness.

Effects Not Found to Be Significant

Threshold	If the project is located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airstrip, would it expose people residing or working in the project area to excessive noise levels?

The campus is not located within two miles of a public airport or public use airport, and has not been included in an airport land use plan. The Initial Study consequently concluded that no impacts associated with implementation of the 2002 LRDP would occur with respect to noise associated with any public use airport, and no additional analysis would be required in this EIR. However, noise impacts resulting from operation of the Medical Center heliport are addressed in Impacts LRDP 4.9-1 and LRDP 4.9-11.

Impacts and Mitigation

Threshold	Would the project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Impact LRDP 4.9-1 **Implementation of the 2002 LRDP would not expose new on-campus student residential uses to noise levels in excess of the State's 45 dBA CNEL interior noise standard. This is considered a *less-than-significant* impact.**

Future noise levels within the campus would continue to be dominated by vehicular traffic on the adjacent roadways. Other sources of noise would include new stationary sources (such as rooftop heating, ventilation, and air conditioning equipment) and increased human activity throughout the campus. Table 4.9-9 (Future Roadway Noise Levels On Campus—Regular Session) and Table 4.9-10 (Future Roadway Noise Levels On Campus—Summer Session) presents the future average daily noise levels associated with these roadways during both the regular and summer sessions, respectively.

Table 4.9-9 Future Roadway Noise Levels On Campus—Regular Session

Roadway Segment	Reference CNEL at 75 Feet[1]	Distance to Noise Contour[1]		
		70 CNEL	65 CNEL	60 CNEL
Sunset Boulevard, Veteran Avenue to Bellagio Road	68.2	57	123	264
Sunset Boulevard, Bellagio Road to Westwood Boulevard	67.9	54	116	251
Sunset Boulevard, Westwood Boulevard to Stone Canyon Road	67.6	52	112	242
Sunset Boulevard, Stone Canyon Road to Copa de Oro Road	67.4	50	108	233
Hilgard Avenue, Sunset Boulevard to Wyton Drive	63.4	27	59	127
Hilgard Avenue, Wyton Drive to Westholme Avenue	64.4	32	68	147
Hilgard Avenue, Westholme Avenue to Manning Avenue	65.0	35	75	161
Hilgard Avenue, Manning Avenue to Le Conte Avenue	65.0	35	75	162
Le Conte Avenue, Gayley Avenue to Westwood Boulevard	63.1	26	56	121
Le Conte Avenue, Westwood Boulevard to Tiverton Avenue	63.4	27	59	126
Le Conte Avenue, Tiverton Avenue to Hilgard Avenue	62.6	24	52	111
Gayley Avenue, Le Conte Avenue to Strathmore Place	64.1	30	65	141
Gayley Avenue, Strathmore Place to Veteran Avenue	62.2	23	49	106
Veteran Avenue, Sunset Boulevard to Gayley Avenue	62.9	25	54	116
Westwood Plaza, north of Le Conte Avenue	62.7	25	53	114
Westwood Boulevard, south of Sunset Boulevard	58.5	—[2]	28	60
Strathmore Place, east of Gayley Avenue	63.0	26	55	119
Bellagio Road, south of Sunset Boulevard	58.0	—[2]	26	55
Stone Canyon Road, south of Sunset Boulevard	56.0	—[2]	19	40
Wyton Drive, west of Hilgard Avenue	58.9	14	30	64
Westholme Avenue, west of Hilgard Avenue	59.7	15	33	71

1. Distances are in feet from roadway centerline. The identified noise level at 75 feet from the roadway centerline is for reference purposes only as a point from which to calculate the noise contour distances. It does not reflect an actual building location or potential impact location.
2. Noise contour is located within the roadway lanes.

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 8.

Table 4.9-10 Future Roadway Noise Levels On Campus—Summer Session

Roadway Segment	Reference CNEL at 75 Feet[1]	Distance to Noise Contour[1]		
		70 CNEL	65 CNEL	60 CNEL
Sunset Boulevard, Veteran Avenue to Bellagio Road	68.4	59	127	274
Sunset Boulevard, Bellagio Road to Westwood Boulevard	67.8	53	114	247
Sunset Boulevard, Westwood Boulevard to Stone Canyon Road	67.6	52	113	242
Sunset Boulevard, Stone Canyon Road to Copa de Oro Road	67.5	51	110	236
Hilgard Avenue, Sunset Boulevard to Wyton Drive	63.5	28	59	128
Hilgard Avenue, Wyton Drive to Westholme Avenue	64.4	32	68	146
Hilgard Avenue, Westholme Avenue to Manning Avenue	64.1	—[2]	65	141
Hilgard Avenue, Manning Avenue to Le Conte Avenue	64.3	31	67	145
Le Conte Avenue, Gayley Avenue to Westwood Boulevard	62.9	25	54	117
Le Conte Avenue, Westwood Boulevard to Tiverton Avenue	63.2	26	57	122

Table 4.9-10 Future Roadway Noise Levels On Campus—Summer Session

Roadway Segment	Reference CNEL at 75 Feet[1]	Distance to Noise Contour[1]		
		70 CNEL	65 CNEL	60 CNEL
Le Conte Avenue, Tiverton Avenue to Hilgard Avenue	62.3	23	50	107
Gayley Avenue, Le Conte Avenue to Strathmore Place	64.1	30	65	141
Gayley Avenue, Strathmore Place to Veteran Avenue	62.9	25	54	117
Veteran Avenue, Sunset Boulevard to Gayley Avenue	63.5	28	60	128
Westwood Plaza, north of Le Conte Avenue	63.6	28	60	130
Westwood Boulevard, south of Sunset Boulevard	58.4	—[2]	27	59
Strathmore Place, east of Gayley Avenue	61.7	—[2]	45	97
Bellagio Road, south of Sunset Boulevard	57.5	—[2]	24	51
Stone Canyon Road, south of Sunset Boulevard	55.5	—[2]	17	38
Wyton Drive, west of Hilgard Avenue	58.4	13	27	58
Westholme Avenue, west of Hilgard Avenue	59.1	14	30	65

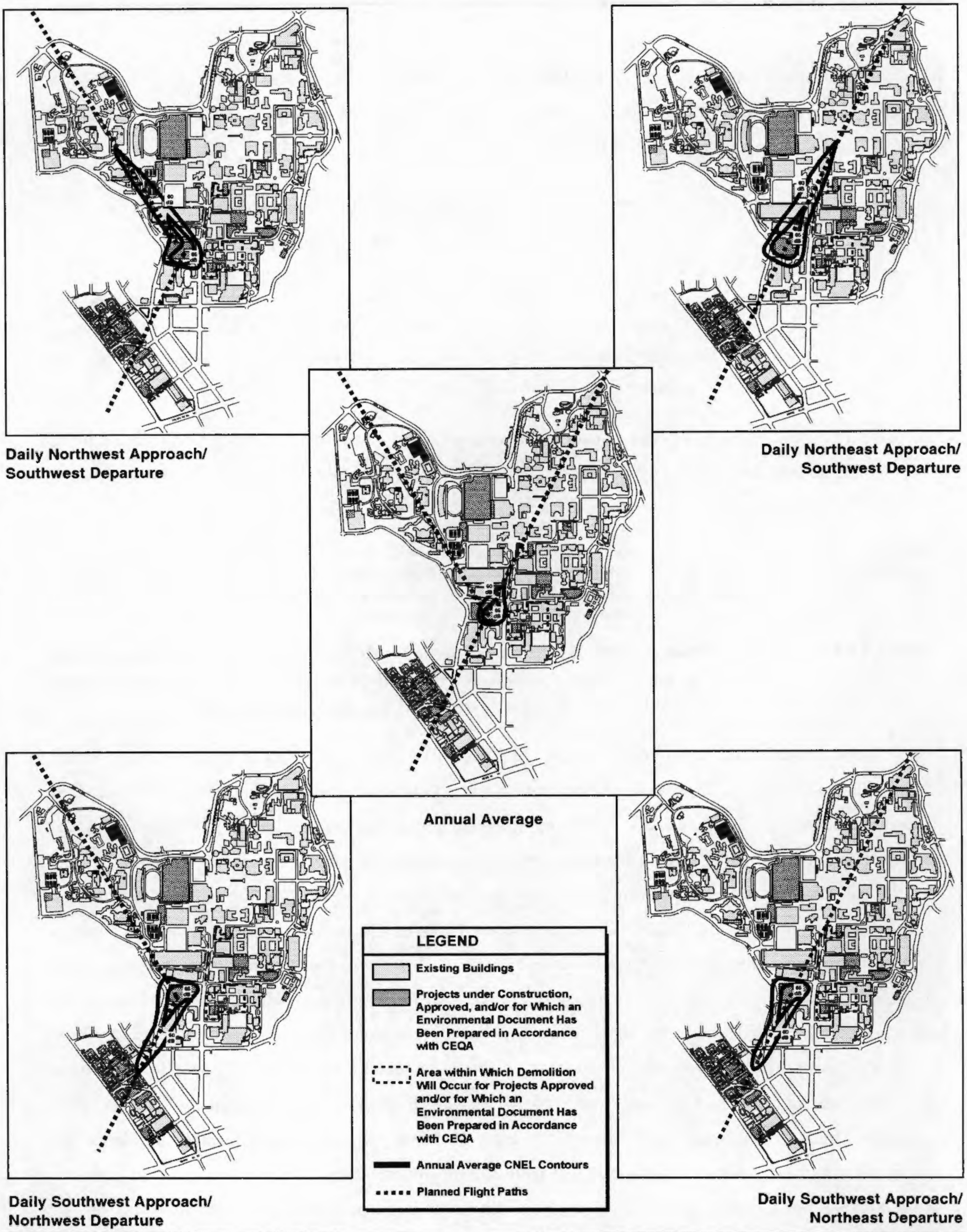
1. Distances are in feet from roadway centerline. The identified noise level at 75 feet from the roadway centerline is for reference purposes only as a point from which to calculate the noise contour distances. It does not reflect an actual building location or potential impact location.
2. Noise contour is located within the roadway lanes.

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 8.

New residential uses proposed under the 2002 LRDP are primarily the student housing uses associated with the Northwest Housing Infill Project (NHIP). As discussed earlier in Section 4.9.1, while the exterior-to-interior reduction of newer residential units constructed in California is generally 30 dBA or more, noise levels within the NHIP student housing buildings could exceed the State's 45 dBA CNEL standard if the exterior noise levels average 75 dBA CNEL or more.

All of the NHIP residential buildings are proposed in areas located beyond the 70 dBA CNEL noise contour distances identified in Table 4.9-9 and Table 4.9-10 for Veteran Avenue. These buildings are also located beyond the 65 dBA CNEL noise contours for the relocated Academic Health Center helipad, as previously identified in Figure 4.9-4 (Estimated Average Helicopter Noise Contours).

Mechanical heating, ventilation, and air conditioning equipment would be located on the rooftop of each new building. The type of equipment currently installed on new buildings within the campus generates noise levels that average around 66 dBA L_{eq} on the air inlet side and 62 dBA L_{eq} on the other sides when measured at 50 feet from the source. As discussed previously in this section, 24-hour CNEL noise levels are about 6.7 dBA greater than 24-hour L_{eq} measurements. This means that this equipment could generate noise levels that average 69 to 73 dBA CNEL at 50 feet when the equipment is operating constantly for 24 hours. Based on observations of the existing equipment at existing campus buildings, the shielding installed around all new equipment at the campus reduces these noise levels by at least 15 dBA.



Not to Scale

SOURCE: EIP Associates

10328-07

EIP ASSOCIATES

FIGURE **4.9-4**
Estimated Average Helicopter Noise Contours

UCLA 2002 LRDP

Based on this information, exterior noise levels around the NHIP student housing buildings would not approach 75 dBA CNEL and, therefore, interior noise levels within these buildings would not exceed 45 dBA CNEL. This impact would be less than significant.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.9-1 — *The campus shall continue to evaluate ambient noise conditions when placing new student housing near regular sources of noise such as roadways and stationary equipment and design the new buildings to ensure that interior noise levels would be less than 45 dBA CNEL.*

Following PP 4.9-1 ensures that this impact remains less than significant by ensuring that interior noise levels would be less than 45 dBA CNEL, consistent with Title 24 of the California Code of Regulations. No mitigation is required.

Threshold	Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Impact LRDP 4.9-2 — **The 2002 LRDP construction could generate and expose persons on campus to excessive groundborne vibration or groundborne noise levels. This is considered a *significant* impact.**

Construction activities that would occur under the 2002 LRDP have the potential to generate low levels of groundborne vibration. Table 4.9-11 (Vibration Source Levels for Construction Equipment) identifies various vibration velocity levels for the types of construction equipment that would operate at the campus during construction. This table does not show groundborne vibration velocity levels for actions such as pile driving or blasting, since they are not expected to occur at the campus during the implementation of the 2002 LRDP. Construction activities would primarily impact existing buildings within the campus. These buildings could sometimes be as close as 25 feet to the construction site or as far as several hundred feet away. Based on the information presented in Table 4.9-11, vibration levels could reach up to 87 VdB at the buildings located within 25 feet of construction. This would exceed the thresholds for each building type. So long as construction occurs more than 50 feet from campus classroom buildings, office buildings, and student housing buildings, the impact would be less than significant. In order for construction activities to not potentially impact sensitive research buildings, the activities would need to occur at least 300 feet from the sensitive building. Where construction activities occur less than 300 feet from sensitive research buildings, the impacts would be significant.

Table 4.9-11 Vibration Source Levels for Construction Equipment

Equipment	Approximate VdB			
	25 Feet	50 Feet	75 Feet	100 Feet
Large Bulldozer	87	81	77	75
Loaded Trucks	86	80	76	74
Jackhammer	79	73	69	67
Small Bulldozer	58	52	48	46

Source: Federal Railroad Administration, 1998; and EIP Associates, 2002.

Construction activities that would occur for the NHIP have the potential to generate low levels of groundborne vibration at the nearby existing student housing buildings. These activities would primarily impact existing buildings in the Northwest zone, including Hedrick Hall, Rieber Hall, Sproul Hall, De Neve Housing, Dykstra Hall, and Tom Bradley International Hall. Construction of Hedrick Hall North and Sproul Dining Commons would be constructed as close as 50 feet to existing residence halls. Based on the information presented in Table 4.9-11, vibration levels could reach up to 81 VdB at these buildings. Although these levels would not cause any damage to the existing residence halls, they would exceed the thresholds for residences when large bulldozers and loaded trucks are operating within 50 feet of the residence halls. The primary effect of these vibration velocity levels is that residents would notice them and possibly be annoyed when trying to sleep, study, or relax when construction activities are occurring between 7:00 A.M. and 9:00 P.M. on weekdays, and 8:00 A.M. and 6:00 P.M. on Saturdays and national holidays. Therefore, this impact is significant.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.9-2 *The campus shall continue to notify research facilities located near approved construction sites of the planned schedule of vibration causing activities so that the researchers can take necessary precautionary measures to avoid negative effects to their research.*

Following PP 4.9-2 represents the best management practice to minimize the impact of groundborne vibration near on-campus facilities during construction. It would not, however, ensure that groundborne vibration does not exceed the identified thresholds of significance for sensitive buildings located in close proximity to the construction sites. Therefore, this impact would be significant and unavoidable. No feasible mitigation is available.

Impact LRDP 4.9-3 **The 2002 LRDP construction would not generate and expose persons off campus to excessive groundborne vibration or groundborne noise levels. This is considered a *less-than-significant* impact.**

The nearest off-campus residential uses are located at least one hundred feet from the nearest potential construction site within the main campus, in this case the Dykstra Parking structure of the NHIP. Based on the information presented in Table 4.9-11, vibration levels from on-campus construction activities would be 75 VdB or less at these residential uses.

Heavy trucks would continue to transport materials to and from the campus when construction activities occur. Because of the constrained nature of access to and from the campus, these trucks are expected to continue using Wilshire Boulevard, Sunset Boulevard, Gayley Avenue, Veteran Avenue, and Hilgard Avenue as the primary access routes to and from the campus. These trucks typically generate groundborne vibration velocity levels of around 63 VdB. These levels could reach 72 VdB where trucks pass over bumps in the road.

In both instances, the resulting groundborne vibration velocity levels would be less than the Federal Railway Administration's 80 VdB vibration impact threshold for residences. Therefore, construction during the implementation of the 2002 LRDP would not expose off-campus persons to excessive groundborne vibration or groundborne noise levels, and this impact would be less than significant. No mitigation is required.

Impact LRDP 4.9-4 **Implementation of the 2002 LRDP would not generate and expose persons on or off campus to excessive groundborne vibration or groundborne noise levels. This is considered a *less-than-significant* impact.**

When construction activities are not occurring at the campus, background operational vibration levels would be expected to average around 50 VdB, as discussed previously in this section. This is substantially less than the 65 VdB threshold for sensitive on-campus research buildings, 80 VdB at residences and student housing buildings, and 83 VdB at other institutional buildings. Therefore, operational activities during implementation of the 2002 LRDP would not expose on- or off-campus persons to excessive groundborne vibration or groundborne noise levels, and this impact would be less than significant. No mitigation is required.

Threshold	Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Impact LRDP 4.9-5 **Implementation of the 2002 LRDP would generate increased local traffic volumes, but would not cause a substantial permanent on- or off-campus increase in ambient roadway noise levels in the project vicinity during the regular session. This is considered a *less-than-significant* impact.**

Locations in the vicinity of the campus could experience slight changes in noise levels as a result of an increase in the student and faculty population and resulting changes in motor vehicle trips during the regular session. The changes in future noise levels at the selected noise-sensitive locations along the study-area roadway segments are identified in Table 4.9-12 (Roadway Noise Impacts—Regular Session). As shown, the changes in motor vehicle trips and circulation patterns during the regular session would increase local noise levels by a maximum of 2.2 dBA CNEL, which is inaudible/ imperceptible to most people. The noise levels along several roadway links would be reduced in association with the reallocation of parking and access points that would occur under the 2002 LRDP. Although roadway noise levels for specific on-campus locations are not identified in Table 4.9-12, the increase in noise levels identified for the roadway segments that border the main campus would be identical to those identified for the selected off-campus analysis locations in this table.

Table 4.9-12 Roadway Noise Impacts—Regular Session

	Noise Levels in dBA CNEL		
Roadway Segment	Future Without Project Traffic Volumes	Future With Project Traffic Volumes	Increase
Wilshire Boulevard, Glendon Avenue to Malcolm Avenue	66.5	66.5	0.0
Wilshire Boulevard, Malcolm Avenue to Westholme Avenue	67.2	67.2	0.0
Wilshire Boulevard, Westholme Avenue to Warner Avenue	(Multi-Family) 67.3 (Church) 67.9	67.3 67.9	0.0 0.0
Wilshire Boulevard, Warner Avenue to Beverly Glen Boulevard	(Multi-Family) 69.1 (Church) 69.5	69.2 69.6	0.1 0.1
Wilshire Boulevard, east of Beverly Glen Boulevard	70.0	70.0	0.0
Sunset Boulevard, west of Church Street	66.8	66.8	0.0
Sunset Boulevard, Church Street to Sepulveda Boulevard	66.2	66.2	0.0
Sunset Boulevard, Sepulveda Boulevard to Veteran Avenue	66.1	65.9	-0.2
Sunset Boulevard, Veteran Avenue to Bellagio Road	66.2	66.2	0.0
Sunset Boulevard, Bellagio Road to Westwood Boulevard	57.8	57.8	0.0
Sunset Boulevard, Westwood Boulevard to Stone Canyon Road	(Single Family) 67.9 (High School) 65.8 Elem. School) 67.9	67.6 65.6 67.6	-0.3 -0.2 -0.3
Sunset Boulevard, Stone Canyon Road to Copa de Oro Road	67.4	67.4	0.0

Table 4.9-12 Roadway Noise Impacts—Regular Session

	Noise Levels in dBA CNEL		
Roadway Segment	Future Without Project Traffic Volumes	Future With Project Traffic Volumes	Increase
Sunset Boulevard, Copa de Oro Road to Bel-Air Road	67.3	67.3	0.0
Sunset Boulevard, Bel-Air Road to Beverly Glen Boulevard	68.4	68.5	0.1
Sunset Boulevard, east of Beverly Glen Boulevard	66.5	66.5	0.0
Hilgard Avenue, Sunset Boulevard to Wyton Drive	63.4	63.4	0.0
Hilgard Avenue, Wyton Drive to Westholme Avenue	64.0	64.4	0.4
Hilgard Avenue, Westholme Avenue to Manning Avenue	(Church) 68.2 (Multi-Family) 65.0	68.2 65.0	0.0 0.0
Hilgard Avenue, Manning Avenue to Le Conte Avenue	67.6	67.6	0.0
Hilgard Avenue, Le Conte Avenue to Weyburn Avenue	(Multi-Family) 65.9 (Church) 65.9	65.9 65.9	0.0 0.0
Hilgard Avenue, Weyburn Avenue to Lindbrook Drive	65.5	65.5	0.0
Le Conte Avenue, east of Hilgard Avenue	61.9	61.9	0.0
Gayley Avenue, Weyburn Avenue to Le Conte Avenue	65.5	65.5	0.0
Gayley Avenue, Le Conte Avenue to Strathmore Place	66.8	66.8	0.0
Gayley Avenue, Strathmore Place to Veteran Avenue	64.9	64.9	0.0
Strathmore Place, west of Gayley Avenue	61.1	61.1	0.0
Levering Avenue, Montana Avenue to Veteran Avenue	58.9	58.9	0.0
Levering Avenue, Veteran Avenue to Le Conte Avenue	58.8	58.8	0.0
Levering Avenue, Le Conte Avenue to Weyburn Avenue	66.3	66.4	0.1
Veteran Avenue, Sunset Boulevard to Gayley Avenue	62.8	62.9	0.1
Veteran Avenue, Gayley Avenue to Levering Avenue	62.4	62.4	0.0
Veteran Avenue, Levering Avenue to Wilshire Boulevard	60.6	60.6	0.0
Veteran Avenue, Wilshire Boulevard to Ohio Avenue	66.8	66.8	0.0
Veteran Avenue, Ohio Avenue to Santa Monica Boulevard	64.5	64.6	0.1
Montana Avenue, Veteran Avenue to Levering Avenue	65.6	63.4	-2.2
Montana Avenue, Levering Avenue to Sepulveda Boulevard	63.8	66.0	2.2
Montana Avenue, west of Sepulveda Boulevard	62.1	62.1	0.0
Sepulveda Boulevard, Ovada Place to Sunset Boulevard	73.0	72.4	-0.6
Sepulveda Boulevard, Sunset Boulevard to Montana Avenue	61.6	61.6	0.0
Sepulveda Boulevard, Wilshire Boulevard to Ohio Avenue	69.7	69.6	-0.1
Sawtelle Boulevard, Ohio Avenue to Santa Monica Boulevard	64.1	64.2	0.1
Sawtelle Boulevard, south of Santa Monica Boulevard	65.2	65.2	0.0
Weyburn Avenue, Glendon Avenue to Westwood Boulevard	61.9	61.9	0.0
Weyburn Avenue, Westwood Boulevard to Gayley Avenue	63.1	63.1	0.0
Lindbrook Avenue, Westwood Boulevard to Gayley Avenue	63.9	64.0	0.1
Wyton Drive, east of Hilgard Avenue	55.9	55.9	0.0
Westholme Avenue, east of Hilgard Avenue	57.8	57.8	0.0
Manning Avenue, east of Hilgard Avenue	54.6	54.6	0.0

Table 4.9-12 Roadway Noise Impacts—Regular Session

Roadway Segment	Noise Levels in dBA CNEL: Future Without Project Traffic Volumes	Future With Project Traffic Volumes	Increase
Beverly Glen Boulevard, Wilshire Boulevard to Comstock Avenue	64.2	64.2	0.0
Beverly Glen Boulevard, Comstock Avenue to Sunset Boulevard	53.6	53.6	0.0
Beverly Glen Boulevard, Sunset Boulevard to Greendale Drive	72.1	72.1	0.0
Beverly Glen Boulevard, Greendale Drive to Mulholland Drive	71.3	71.3	0.0
Ohio Avenue, Westwood Boulevard to Veteran Avenue	68.4	68.4	0.0
Ohio Avenue, Veteran Avenue to Sepulveda Boulevard	69.3	69.3	0.0
Ohio Avenue, Sepulveda Boulevard to Beloit Avenue	72.2	72.2	0.0
Ohio Avenue, Beloit Avenue to Sawtelle Boulevard	68.8	68.8	0.0
Ohio Avenue, west of Sawtelle Boulevard	68.5	68.5	0.0
Bellagio Road, Chalon Road to Sunset Boulevard	61.8	61.8	0.0
Bel-Air Road, north of Sunset Boulevard	58.3	58.4	0.1

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 8.

Because the roadway noise levels at all on- and off-campus locations would increase by less than 5 dBA CNEL, and by less than 3 dBA CNEL where the resulting noise level is 70 dBA CNEL or more, the 2002 LRDP would not generate increased local traffic volumes that cause a substantial permanent on- or off-campus increase in ambient noise levels in the project vicinity during the regular session. This impact would be less than significant.

As discussed in Section 4.13 (Transportation/Traffic) of this EIR, implementation of the 2002 LRDP would not result in an impact on public transit services during the regular and summer sessions, and no buses would need to be added to the number presently serving the campus and vicinity as a result of the 2002 LRDP. The campus has already worked with the Culver City Bus Company to re-route its #6 bus into the campus rather than to the Hilgard Bus Terminal. The campus has also collaborated with the Big Blue Bus line to provide an express bus that drives directly into the Westwood Plaza Ackerman Union turn-around on the campus. Both of these re-routing efforts have reduced the volume of buses at the Hilgard Bus Terminal. Therefore, because no increases in bus service during the regular and summer session are anticipated as a result of implementation of the 2002 LRDP, the impact of the 2002 LRDP on noise levels associated with public transit (including specifically at the Hilgard Bus Terminal) would be less than significant. No mitigation is required.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.9-5(a) — *The campus shall continue to provide on-campus housing to continue the evolution of UCLA from a commuter to a residential campus.* (This is identical to Air Quality PP 4.2-1(a) and Transportation/Traffic PP 4.13-1(c).)

PP 4.9-5(b) — *The campus shall continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective.* (This is identical to Air Quality PP 4.2-1(b) and Transportation/Traffic PP 4.13-1(d).)

Following PP 4.9-5(a) and PP 4.9-5(b) ensures that motor vehicle trips to and from the campus and the associated noise levels are reduced to the maximum extent feasible and that this impact remains less than significant. On-campus housing reduces the number of people that otherwise would need to commute to and from the campus to attend class. The TDM program reduces the number of motor vehicle trips for campus employees. No mitigation is required.

Impact LRDP 4.9-6 — **Implementation of the 2002 LRDP would generate increased local traffic volumes, but would not cause a substantial permanent on- or off-campus increase in ambient roadway noise levels during the summer session. This is considered *a less-than-significant* impact.**

During the summer session, the UCLA campus would experience a substantial increase in the average weekday population over the baseline condition. The changes in roadway noise levels associated with the 2002 LRDP over the baseline condition at the campus during the summer session are presented in Table 4.9-13 (Roadway Noise Impacts—Summer Session). As shown, the changes in motor vehicle trips and circulation patterns during the summer session would increase local noise levels by a maximum of 2.3 dBA CNEL, which is inaudible/imperceptible to most people. The noise levels along several roadway links would be reduced as a result of the reallocation of parking and access points that would occur under the 2002 LRDP. Although roadway noise levels for specific on-campus locations are not identified in Table 4.9-13, the increase in noise levels identified for the roadway segments that border the main campus would be identical to those identified for the selected off-campus analysis locations in this table.

Because the roadway noise levels at all on- and off-campus locations would increase by less than 5 dBA CNEL, and by less than 3 dBA CNEL where the resulting noise level is 70 dBA CNEL or more, the 2002 LRDP would not generate increased local traffic volumes that cause a substantial permanent on- or off-campus increase in ambient noise levels in the project vicinity during the summer session. This impact would be less than significant.

Table 4.9-13 Roadway Noise Impacts—Summer Session

Roadway Segment	Noise Levels in dBA CNEL		
	Future Without Project Traffic Volumes	Future With Project Traffic Volumes	Increase
Wilshire Boulevard, Glendon Avenue to Malcolm Avenue	66.1	66.1	0.0
Wilshire Boulevard, Malcolm Avenue to Westholme Avenue	67.0	67.0	0.0
Wilshire Boulevard, Westholme Avenue to Warner Avenue	(Multi-Family) 67.3 (Church) 67.9	67.4 67.9	0.1 0.0
Wilshire Boulevard, Warner Avenue to Beverly Glen Boulevard	(Multi-Family) 69.2 (Church) 69.6	69.2 69.6	0.0 0.0
Wilshire Boulevard, east of Beverly Glen Boulevard	70.6	69.9	-0.7
Sunset Boulevard, west of Church Street	67.4	67.4	0.0
Sunset Boulevard, Church Street to Sepulveda Boulevard	66.4	66.4	0.0
Sunset Boulevard, Sepulveda Boulevard to Veteran Avenue	65.9	66.1	0.2
Sunset Boulevard, Veteran Avenue to Bellagio Road	67.7	66.4	-1.3
Sunset Boulevard, Bellagio Road to Westwood Boulevard	57.5	57.7	0.2
Sunset Boulevard, Westwood Boulevard to Stone Canyon Road	(Single Family) 67.8 (High School) 65.7 Elem. School) 67.8	67.6 65.6 67.6	-0.2 -0.1 -0.2
Sunset Boulevard, Stone Canyon Road to Copa de Oro Road	67.3	67.5	0.2
Sunset Boulevard, Copa de Oro Road to Bel-Air Road	67.3	67.3	0.0
Sunset Boulevard, Bel-Air Road to Beverly Glen Boulevard	68.5	68.6	0.1
Sunset Boulevard, east of Beverly Glen Boulevard	66.7	66.8	0.1
Hilgard Avenue, Sunset Boulevard to Wyton Drive	63.2	63.5	0.3
Hilgard Avenue, Wyton Drive to Westholme Avenue	64.2	64.4	0.2
Hilgard Avenue, Westholme Avenue to Manning Avenue	(Church) 67.0 (Multi-Family) 63.8	67.3 64.1	0.3 0.3
Hilgard Avenue, Manning Avenue to Le Conte Avenue	66.4	66.9	0.5
Hilgard Avenue, Le Conte Avenue to Weyburn Avenue	(Multi-Family) 65.4 (Church) 65.4	65.8 65.8	0.4 0.4
Hilgard Avenue, Weyburn Avenue to Lindbrook Drive	65.0	65.2	0.2
Le Conte Avenue, east of Hilgard Avenue	60.8	61.2	0.4
Gayley Avenue, Weyburn Avenue to Le Conte Avenue	65.4	65.5	0.1
Gayley Avenue, Le Conte Avenue to Strathmore Place	66.6	66.8	0.2
Gayley Avenue, Strathmore Place to Veteran Avenue	65.3	65.6	0.3
Strathmore Place, west of Gayley Avenue	58.9	61.1	2.2
Levering Avenue, Montana Avenue to Veteran Avenue	58.8	61.1	2.3
Levering Avenue, Veteran Avenue to Le Conte Avenue	58.5	58.5	0.0
Levering Avenue, Le Conte Avenue to Weyburn Avenue	66.8	67.0	0.2
Veteran Avenue, Sunset Boulevard to Gayley Avenue	64.7	63.5	0.8
Veteran Avenue, Gayley Avenue to Levering Avenue	62.8	62.9	0.1
Veteran Avenue, Levering Avenue to Wilshire Boulevard	60.8	60.7	-0.1
Veteran Avenue, Wilshire Boulevard to Ohio Avenue	67.4	67.1	-0.3

Table 4.9-13 Roadway Noise Impacts—Summer Session

	Noise Levels in dBA CNEL		
Roadway Segment	Future Without Project Traffic Volumes	Future With Project Traffic Volumes	Increase
Veteran Avenue, Ohio Avenue to Santa Monica Boulevard	63.7	63.8	0.1
Montana Avenue, Veteran Avenue to Levering Avenue	64.6	64.9	0.3
Montana Avenue, Levering Avenue to Sepulveda Boulevard	63.6	63.8	0.2
Montana Avenue, west of Sepulveda Boulevard	61.8	62.0	0.2
Sepulveda Boulevard, Ovada Place to Sunset Boulevard	73.3	73.3	0.0
Sepulveda Boulevard, Sunset Boulevard to Montana Avenue	61.9	62.0	0.1
Sepulveda Boulevard, Wilshire Boulevard to Ohio Avenue	69.9	69.9	0.0
Sawtelle Boulevard, Ohio Avenue to Santa Monica Boulevard	64.3	64.4	0.1
Sawtelle Boulevard, south of Santa Monica Boulevard	65.7	65.7	0.0
Weyburn Avenue, Glendon Avenue to Westwood Boulevard	62.2	62.4	0.2
Weyburn Avenue, Westwood Boulevard to Gayley Avenue	62.7	62.8	0.1
Lindbrook Avenue, Westwood Boulevard to Gayley Avenue	63.4	63.5	0.1
Wyton Drive, east of Hilgard Avenue	55.7	56.0	0.3
Westholme Avenue, east of Hilgard Avenue	56.9	57.4	0.5
Manning Avenue, east of Hilgard Avenue	51.6	52.9	1.3
Beverly Glen Boulevard, Wilshire Boulevard to Comstock Avenue	63.8	63.9	0.1
Beverly Glen Boulevard, Comstock Avenue to Sunset Boulevard	53.4	53.5	0.1
Beverly Glen Boulevard, Sunset Boulevard to Greendale Drive	72.0	72.0	0.0
Beverly Glen Boulevard, Greendale Drive to Mulholland Drive	71.3	71.3	0.0
Ohio Avenue, Westwood Boulevard to Veteran Avenue	67.6	67.7	0.1
Ohio Avenue, Veteran Avenue to Sepulveda Boulevard	68.6	68.7	0.1
Ohio Avenue, Sepulveda Boulevard to Beloit Avenue	71.9	71.9	0.0
Ohio Avenue, Beloit Avenue to Sawtelle Boulevard	68.8	68.8	0.0
Ohio Avenue, west of Sawtelle Boulevard	68.6	68.6	0.0
Bellagio Road, Chalon Road to Sunset Boulevard	62.6	62.6	0.0
Bel-Air Road, north of Sunset Boulevard	58.4	58.8	0.4

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 8.

As discussed in Impact 4.9-5, no changes in bus service during the regular and summer session are anticipated as a result of implementation of the 2002 LRDP, and the impact of the 2002 LRDP on noise levels associated with public transit at the Hilgard Bus Terminal would be less than significant. No mitigation is required.

To further reduce trip generation and associated noise levels during the summer session, the following mitigation measure will be implemented to expand distribution of TDM information to summer session students, many of whom are not regularly enrolled students.

The following mitigation measure shall be continued throughout development of the NHIP:

MM 4.9-6 *The TDM program will be extended through the student registration process to provide information concerning alternative transportation options to summer session students to increase awareness of, and participation in, alternative transportation programs during the summer session.* (This is identical to Air Quality MM 4.2-4 and Transportation/Traffic MM 4.13-2(a).)

Following PP 4.9-5(a), PP 4.9-5(b), and MM 4.9-6 further reduces this less-than-significant impact by reducing trip generation during the summer session.

Impact LRDP 4.9-7 **Implementation of the 2002 LRDP could add new stationary sources of noise, but would not cause a substantial permanent on- or off-campus increase in ambient noise levels. This is considered a *less-than-significant* impact.**

New stationary sources of noise, such as rooftop heating, ventilation, and air conditioning (HVAC) equipment, would be installed within the main campus under the 2002 LRDP. This equipment would be shielded and appropriate noise muffling devices installed to reduce noise levels that affect nearby on- and/or off-campus noise-sensitive uses. The type of HVAC equipment currently installed on new buildings within the campus generates noise levels that average around 66 dBA L_{eq} on the air inlet side and 62 dBA L_{eq} on the other sides when measured at 50 feet from the source. The shielding installed around all new equipment at the campus reduces these noise levels by around 15 dBA. Because existing noise levels within the campus currently average 54 to 69 dBA L_{eq}, the resulting equipment noise levels of less than 51 dBA L_{eq} at nearby buildings would not be expected to cause a substantial permanent increase in noise levels on campus of 5 dBA CNEL or more. Off campus uses would be located several hundred feet from any potential site of new stationary equipment and would be separated from the campus by landscaped buffers and roadways. As such, it would not cause a substantial increase in noise levels of 5 dBA CNEL or more. This impact would be less than significant.

The following campus programs, procedures, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.9-7(a) *The campus shall continue to shield all new stationary sources of noise that would be located in close proximity to noise-sensitive buildings and uses.*

PP 4.9-7(b)	*The campus shall continue to provide a landscaped buffer along the western, northern, and eastern edges of the main campus in order to maximize the distance between the roadways and new buildings and provide an acoustically soft environment. At a minimum, this environment can be provided by planting grass and other low landscaping.*

Following PP 4.9-7(a) and PP 4.9-7(b) reduces the noise levels generated by mechanical equipment and heard at noise-sensitive uses, and ensures that this impact remains less than significant. No mitigation is required.

Threshold	Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Impact LRDP 4.9-8 **The 2002 LRDP construction would result in substantial temporary or periodic increases in ambient noise levels at on-campus locations. This is considered a *significant* impact.**

Construction activities are an existing and on-going source of noise at the UCLA campus. Construction of several new facilities is presently occurring in the Core Campus, Central, Health Sciences, and Southwest zones.

Under the 2002 LRDP, noise would continue to be generated during the construction of the 1.71 million gsf remaining and approved under the 1990 LRDP (reallocated among the eight existing campus zones) to address existing and future program needs. Based on historic trends at the campus, there could be an average of between two to four building projects under construction at one time. Each of these buildings would be in a different location and would affect different receptors. When construction is completed at one location, other buildings could be constructed or renovated. Because these activities would not occur at a single location over the planning horizon of the 2002 LRDP (that would affect the same receptors), these construction-related noise impacts are considered temporary.

Four basic types of activities would be expected to occur and generate noise during construction. First, some existing buildings within the campus would be demolished and existing surface features cleared. Following demolition, the development sites would be prepared (graded and/or excavated) to accommodate the new building foundations and surface features. The buildings and surface features would then be constructed and readied for use. Finally, the area around the new buildings would be landscaped. During each stage of development there would be a different mix of equipment operating, and noise levels would vary based on the amount of equipment in operation and the location of the activity.

The potential noise levels associated with typical construction equipment and outdoor construction activities were previously identified in Table 4.9-7 (Noise Ranges of Typical Construction Equipment) and Table 4.9-8 (Typical Outdoor Construction Noise Levels). These tables do not show noise levels for pile driving or blasting operations, since they are not expected to occur at the campus during the implementation of the 2002 LRDP. Classroom and office buildings are located in close proximity to areas within the main campus where development under the 2002 LRDP would occur. Construction noise levels could temporarily reach up to the 83 dBA L_{eq} level identified in Table 4.9-7 during the daytime at nearby on-campus buildings. This could be an increase of more than 10.0 dBA L_{eq} over the existing daytime noise levels at these buildings. As such, construction noise levels could substantially increase existing noise levels at on-campus classrooms and office uses. This would be a significant impact.

Construction of the NHIP would impact existing buildings in the Northwest zone, including Hedrick Hall, Rieber Hall, Sproul Hall, De Neve Housing, Dykstra Hall, and Tom Bradley International Hall. Construction of Hedrick North and Sproul Dining Commons would be constructed as close as 50 feet to existing residence halls. Based on the information presented in Table 4.9-8, construction noise levels could reach up to 89 dBA L_{eq} during the daytime at these buildings. This would be an increase of more than 10.0 dBA L_{eq} over the existing daytime noise levels at the existing noise buildings. Noise levels would also increase within the dormitory units that face the construction sites, although by a lesser amount, since the buildings would reduce exterior noise levels by 20 to 25 dBA L_{eq}. The primary effect of these noise levels is that residents would notice them and possibly be annoyed when trying to sleep, study, or relax when construction activities are occurring between 7:00 A.M. and 9:00 P.M. on weekdays, and 8:00 A.M. and 6:00 P.M. on Saturdays and national holidays. As required by PP 4.9-8(d), Capital Programs conducts regular meetings with on-campus constituents in order to provide advance notice of construction activities. These meetings serve as a coordinating mechanism whereby noisy construction activities can be stopped during finals week, commencement, and other times, as necessary. However, as described above, because noise levels could reach up to 89 dBA L_{eq} during the daytime, which would represent an increase of more than 10.0 dBA L_{eq} over the existing daytime noise levels, this impact is significant.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.9-8(a) *To the extent feasible, construction activities shall be limited to 7:00 A.M. to 9:00 P.M. Monday through Friday, 8:00 A.M. to 6:00 P.M. on Saturday, and no construction on Sunday and national holidays, as appropriate, in order to minimize disruption to area residences surrounding the campus and to on-campus uses that are sensitive to noise.*

PP 4.9-8(b) *The campus shall continue to require by contract specifications that construction equipment be required to be muffled or otherwise shielded. Contracts shall specify that engine-driven equipment be fitted with appropriate noise mufflers.*

PP 4.9-8(c) *The campus shall continue to require that stationary construction equipment material and vehicle staging be placed to direct noise away from sensitive receptors.*

PP 4.9-8(d) *The campus shall continue to conduct regular meetings with on-campus constituents to provide advance notice of construction activities in order to coordinate these activities with the academic calendar, scheduled events, and other situations, as needed.*

Following PP 4.9-8(a) through PP 4.9-8(d) minimizes construction noise impacts to on-campus locations. They would not, however, ensure that construction noise levels do not increase by less than 10 dBA at noise sensitive uses located in close proximity to the construction sites. Therefore, this impact would be significant and unavoidable. No feasible mitigation is available.

Impact LRDP 4.9-9 **The 2002 LRDP construction would result in substantial temporary or periodic increases in ambient noise levels at off-campus locations. This is considered a *significant* impact.**

Off-campus residential uses that are located at least 100 hundred feet from potential construction sites within the main campus (such as those near the proposed Dykstra Parking site) are separated from the campus by sufficient distance and with intervening roadways (e.g., Gayley Avenue) such that the construction noise levels identified in Table 4.9-8 would be reduced by at least 6 dBA. Therefore, in these situations, construction noise levels would be less than 77 dBA L_{eq} at these nearest residential uses. Further, existing daytime noise levels would not increase by more than 10 dBA, and in these instances, construction noise would not result in substantial temporary periodic increases in ambient noise levels at off-campus residential locations.

Off-campus residential uses that are located less than 100 hundred feet from UCLA construction sites could experience ambient noise levels that are increased by 10 dBA or more. Furthermore, construction work could include infrastructure improvements and utility connections in off-campus roadways. Such infrastructure and/or utility work may need to be scheduled outside of the typical hours of construction in order to avoid traffic impacts from temporary road, lane, or intersection closures. However, as required by PP 4.9-9, Capital Programs conducts meetings, as needed, with off campus constituents that are affected by campus construction in order to provide advance notification of construction activities and ensure that the mutual needs of the particular construction project and those impacted by construction noise are met, to the maximum extent feasible.

In addition to PP 4.9-8(a) through PP 4.9-8(d), the following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.9-9 *The campus shall continue to conduct meetings, as needed, with off-campus constituents that are affected by campus construction to provide advance notice of construction activities and ensure that the mutual needs of the particular construction project and of those impacted by construction noise are met, to the extent feasible.*

Following PP 4.9-8(a) through PP 4.9-8(c) and PP 4.9-9 minimizes construction noise impacts to off-campus locations. They would not, however, ensure that noise levels do not increase by less than 10 dBA at noise sensitive uses located in close proximity to construction sites. Therefore, this impact would be significant and unavoidable.

Impact LRDP 4.9-10 Implementation of the 2002 LRDP would not result in substantial temporary or periodic increases in ambient noise levels due to special events. This is considered a *less-than-significant* impact.

Under the 2002 LRDP, noise would continue to be generated by occasional special events at the UCLA campus, such as athletic events at Drake Track & Field Stadium and outdoor concerts within the Northwest zone, (i.e., Sunset Canyon Recreation Center). The loudest of these would continue to be the outdoor concerts. The operating practice for events at the Sunset Canyon Recreation Center is that amplified sound is not permitted past 9:00 P.M. Sunday through Thursday or past 10:00 P.M. on Friday and Saturday. These special events are no different than those that occur under the existing baseline conditions. Implementation of the 2002 LRDP would increase the number of students living at the campus within Northwest zone, but would not increase the number of these events. As such, these events would not result in substantial temporary or periodic increases in ambient noise levels. This is a less-than-significant impact, and no mitigation is required.

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

Impact LRDP 4.9-11 **Implementation of the 2002 LRDP would not expose additional students, faculty, and visitors within the UCLA campus to excessive noise levels generated by helicopter operations. This is considered a *less-than-significant* impact.**

Students, faculty, and visitors to UCLA are currently exposed to short-term noise levels generated by helicopter operations to and from the Academic Health Center. These helicopter operations occur an average of five to six times per week, and people are exposed to helicopter noise for less than 30 seconds of each flight.

Implementation of the 2002 LRDP would not increase the number of helicopter flights, but would increase the number of students, faculty, and visitors at the campus that are exposed to helicopter noise levels. The number of persons at the campus would increase by an average of 4,873 persons during the regular session, and 6,992 persons during the summer session. Any number of these people could be exposed to short-term helicopter noise levels if they are on-campus, outdoors, and under the flight path of the helicopter. At most, these people would be exposed to helicopter noise for less than 30 seconds. Therefore, implementation of the 2002 LRDP would not expose additional students, faculty, and visitors within the UCLA campus to excessive noise levels generated by helicopter operations. This is a less-than-significant impact, and no mitigation is required.

4.9.4 Cumulative Impacts

For the purposes of this analysis, development of the related projects provided in Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to the Environmental Analysis) will be considered to contribute to cumulative noise impacts. Noise by definition is a localized phenomenon, and drastically reduces in magnitude as distance from the source increases. Consequently, only projects and growth due to occur in the Westwood area would be likely to contribute to cumulative noise impacts.

Cumulative development is not expected to result in the exposure of persons to noise levels in excess of applicable standards. Cumulative development would be subject to the California Noise Insulation Standards, which require that new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings achieve interior noise levels of 45 dBA CNEL. Future development is expected to comply with this requirement. Thus, the cumulative impact is less than significant. Additionally, the 2002 LRDP would be less than significant, as all residential construction under the 2002 LRDP would be designed to be in compliance with this standard. This is considered to be a *less-than-significant* impact.

Cumulative development in the Westwood area should not result in the exposure of people to or the generation of excessive groundborne vibration or groundborne noise levels, due to the localized nature of vibration impacts and the fact that all construction would not occur at the same time and at the same location. With regard to cumulative construction impacts on the Westwood area, Table 4.9-11 lists the groundborne vibration velocity levels of various types of construction equipment. Not included in the Table are figures for more intensive activities that are not contemplated for the 2002 LRDP but may occur in connection with off-campus development, such as pile-driving and the use of explosives, which may be assumed to be significant sources of groundborne vibration. Even though groundborne vibration impacts are not expected to be cumulatively considerable, because the nature and extent of construction in connection with future Westwood area projects is uncertain, it will be assumed for the purposes of this analysis that future development could result in a cumulatively significant impact.

The 2002 LRDP would nevertheless not result in a cumulatively considerable impact with regard to excessive groundborne vibration. Construction activities under the LRDP would not utilize explosives or pile driving, which are the most intensive ground-shaking activities associated with construction. Additionally, trucks associated with construction will typically generate only 63 VdB while traveling on roads, and 72 VdB when passing over bumps in the road. This is well below the 80 VdB standard established by the Federal Railway Administration for impacts on residences. Since vibration decreases substantially with distance, groundborne vibration caused by the 2002 LRDP construction will not contribute to any cumulatively excessive groundborne vibration. Therefore, the implementation of the 2002 LRDP would not result in a cumulatively considerable contribution with respect to groundborne vibration from construction. This is considered to be a *less-than-significant* impact.

With regard to cumulative groundborne vibration due to operations, it is not expected that growth in the Westwood area would lead to a cumulatively significant impact. According to the General Plan Framework, the Westwood area is a mixture of residential, retail, and commercial land uses, and no industrial land uses are allowed. These land uses will not result in excessive groundborne vibration, and consequently a cumulatively significant impact in this area would not occur. Because background operational vibration levels under the 2002 LRDP are expected to be about 50 VdB, which is well below the sensitivity threshold for even sensitive scientific equipment, the 2002 LRDP contribution will also be less than significant. This is considered to be a *less-than-significant* impact.

Cumulative development in the Westwood area also should not result in a cumulative impact in terms of a substantial permanent increase in ambient noise levels. A substantial permanent increase is most likely to originate from increases in noise levels due to roadway traffic. For the purposes of this EIR, an increase of 5 dBA at any location is considered to be a significant impact, and if the resulting noise level would exceed 70 dBA CNEL, an increase of 3 dBA is considered significant. In order to determine whether the 2002 LRDP along with future Westwood development would result in a cumulatively significant impact, the increase between existing conditions and the "Future With Project Traffic Volumes" scenario was determined. See Table 4.9-14 (Cumulative Project Roadway Noise Impacts—Regular Session) and Table 4.9-15 (Cumulative Project Roadway Noise Impacts—Summer Session). As shown, no increase above 2.2 dBA CNEL is expected during the regular session and no increase above 2.9 dBA CNEL is expected during the summer session. Consequently, there would be no cumulatively significant impact in this area with regard to roadway noise. In addition, because the contribution of the 2002 LRDP was included in the "Future With Project Traffic Volumes" figures, the 2002 LRDP impact is also less than significant. This is considered to be a *less-than-significant* impact.

Table 4.9-14 Cumulative Project Roadway Noise Impacts—Regular Session

Roadway Segment	Noise Levels in dBA CNEL		
	Existing Traffic Volumes	Future With Project Traffic Volumes	Increase
Wilshire Boulevard, Glendon Ave. to Malcolm Ave.	66.1	66.5	0.4
Wilshire Boulevard, Malcolm Ave. to Westholme Ave.	66.6	67.2	0.6
Wilshire Boulevard, Westholme Ave. to Warner Ave.	(Multi-Family) 66.6	67.3	0.7
	(Church) 67.2	67.9	0.7
Wilshire Boulevard, Warner Ave. to Beverly Glen Blvd.	(Multi-Family) 68.6	69.2	0.6
	(Church) 69.0	69.6	0.6
Wilshire Boulevard, east of Beverly Glen Blvd.	69.4	70.0	0.6
Sunset Boulevard, west of Church St.	66.4	66.8	0.4
Sunset Boulevard, Church St. to Sepulveda Blvd.	65.8	66.2	0.4
Sunset Boulevard, Sepulveda Blvd. to Veteran Ave.	65.6	65.9	0.3
Sunset Boulevard, Veteran Ave. to Bellagio Rd.	65.9	66.2	0.3
Sunset Boulevard, Bellagio Rd. to Westwood Blvd.	57.5	57.8	0.3
Sunset Boulevard, Westwood Blvd. to Stone Canyon Rd.	(Single Family) 67.3	67.6	0.3
	(High School) 65.3	65.6	0.3
	(Elem. School) 67.3	67.6	0.3
Sunset Boulevard, Stone Canyon Rd. to Copa de Oro Rd.	67.0	67.4	0.4
Sunset Boulevard, Copa de Oro Rd. to Bel Air Rd.	67.0	67.3	0.3
Sunset Boulevard, Bel-Air Rd. to Beverly Glen Blvd.	67.9	68.5	0.6
Sunset Boulevard, east of Beverly Glen Blvd.	66.0	66.5	0.5
Hilgard Avenue, Sunset Blvd. to Wyton Dr.	63.1	63.4	0.3

Table 4.9-14 Cumulative Project Roadway Noise Impacts—Regular Session

Roadway Segment	Noise Levels in dBA CNEL		
	Existing Traffic Volumes	Future With Project Traffic Volumes	Increase
Hilgard Avenue, Wyton Dr. to Westholme Ave.	63.6	64.4	0.8
Hilgard Avenue, Westholme Ave. to Manning Ave.	(Church) 67.9	68.2	0.3
	(Multi-Family) 64.7	65.0	0.3
Hilgard Avenue, Manning Ave. to Le Conte Ave.	67.1	67.6	0.5
Hilgard Avenue, Le Conte Ave. to Weyburn Ave.	(Multi-Family) 65.0	65.9	0.9
	(Church) 65.0	65.9	0.9
Hilgard Avenue, Weyburn Ave. to Lindbrook Dr.	64.7	65.5	0.8
Le Conte Avenue, east of Hilgard Ave.	61.3	61.9	0.6
Gayley Avenue, Weyburn Ave. to Le Conte Ave.	66.6	65.5	-1.1
Gayley Avenue, Le Conte Ave. to Strathmore Pl.	66.5	66.8	0.3
Gayley Avenue, Strathmore Pl. to Veteran Ave.	64.4	64.9	0.5
Strathmore Place, west of Gayley Ave.	60.6	61.1	0.5
Levering Avenue, Montana Ave. to Veteran Ave.	58.3	58.9	0.6
Levering Avenue, Veteran Ave. to Le Conte Ave.	58.2	58.8	0.6
Levering Avenue, Le Conte Ave. to Weyburn Ave.	66.1	66.4	0.3
Veteran Avenue, Sunset Blvd. to Gayley Ave.	63.0	62.9	-0.1
Veteran Avenue, Gayley Ave. to Levering Ave.	61.7	62.4	0.7
Veteran Avenue, Levering Ave. to Wilshire Blvd.	59.6	60.6	1.0
Veteran Avenue, Wilshire Blvd. to Ohio Ave.	66.7	66.8	0.1
Veteran Avenue, Ohio Ave. to Santa Monica Blvd.	64.0	64.6	0.6
Montana Avenue, Veteran Ave. to Levering Ave.	65.3	63.4	-1.9
Montana Avenue, Levering Ave. to Sepulveda Blvd.	63.8	66.0	2.2
Montana Avenue, west of Sepulveda Blvd.	61.3	62.1	0.8
Sepulveda Boulevard, Ovada Pl. to Sunset Blvd.	72.1	72.4	0.3
Sepulveda Boulevard, Sunset Blvd. to Montana Ave.	60.8	61.6	0.8
Sepulveda Boulevard, Wilshire Blvd. to Ohio Ave.	69.3	69.6	0.3
Sawtelle Boulevard, Ohio Ave. to Santa Monica Blvd.	63.9	64.2	0.3
Sawtelle Boulevard, south of Santa Monica Blvd.	65.0	65.2	0.2
Weyburn Avenue, Glendon Ave. to Westwood Blvd.	61.1	61.9	0.8
Weyburn Avenue, Westwood Blvd. to Gayley Ave.	63.3	63.1	-0.2
Lindbrook Avenue, Westwood Blvd. to Gayley Ave.	63.6	64.0	0.4
Wyton Drive, east of Hilgard Ave.	55.1	55.9	0.8
Westholme Avenue, east of Hilgard Ave.	57.2	57.8	0.6
Manning Avenue, east of Hilgard Ave.	54.3	54.6	0.3
Beverly Glen Boulevard, Wilshire Blvd. to Comstock Ave.	63.5	64.2	0.7
Beverly Glen Boulevard, Comstock Ave. to Sunset Blvd.	52.9	53.6	0.7

Table 4.9-14 Cumulative Project Roadway Noise Impacts—Regular Session

Roadway Segment	Noise Levels in dBA CNEL		
	Existing Traffic Volumes	Future With Project Traffic Volumes	Increase
Beverly Glen Boulevard, Sunset Blvd. to Greendale Dr.	71.6	72.1	0.5
Beverly Glen Boulevard, Greendale Dr. to Mulholland Dr.	72.0	71.3	-0.7
Ohio Avenue, Westwood Blvd. to Veteran Ave.	68.1	68.4	0.3
Ohio Avenue, Veteran Ave. to Sepulveda Blvd.	68.9	69.3	0.4
Ohio Avenue, Sepulveda Blvd. to Beloit Ave.	71.9	72.2	0.3
Ohio Avenue, Beloit Ave. to Sawtelle Blvd.	68.5	68.8	0.3
Ohio Avenue, west of Sawtelle Blvd.	68.3	68.5	0.2
Bellagio Road, Chalon Rd. to Sunset Blvd.	61.4	61.8	0.4
Bel-Air Road, north of Sunset Blvd.	58.0	58.4	0.4

Source: EIP Associates 2002. Calculation data and results are provided in Appendix 8.

Table 4.9-15 Cumulative Project Roadway Noise Impacts—Summer Session

Roadway Segment	Noise Levels in dBA CNEL		
	Existing Traffic Volumes	Future + Project Traffic Volumes	dBA CNEL
Wilshire Boulevard, Glendon Ave. to Malcolm Ave.	65.9	66.1	0.2
Wilshire Boulevard, Malcolm Ave. to Westholme Ave.	66.4	67.0	0.6
Wilshire Boulevard, Westholme Ave. to Warner Ave.	(Multi-Family) 66.5	67.4	0.9
	(Church) 67.1	67.9	0.8
Wilshire Boulevard, Warner Ave. to Beverly Glen Blvd.	(Multi-Family) 68.5	69.2	0.7
	(Church) 68.8	69.6	0.8
Wilshire Boulevard, east of Beverly Glen Blvd.	69.3	69.9	0.6
Sunset Boulevard, west of Church St.	67.1	67.4	0.3
Sunset Boulevard, Church St. to Sepulveda Blvd.	65.3	66.4	1.1
Sunset Boulevard, Sepulveda Blvd. to Veteran Ave.	66.0	66.1	0.1
Sunset Boulevard, Veteran Ave. to Bellagio Rd.	65.9	66.4	0.5
Sunset Boulevard, Bellagio Rd. to Westwood Blvd.	57.3	57.7	0.4
Sunset Boulevard, Westwood Blvd. to Stone Canyon Rd.	(Single Family) 67.2	67.6	0.4
	(High School) 65.2	65.6	0.4
	(Elem. School) 67.2	67.6	0.4
Sunset Boulevard, Stone Canyon Rd. to Copa de Oro Rd.	67.0	67.5	0.5
Sunset Boulevard, Copa de Oro Rd. to Bel-Air Rd.	66.9	67.3	0.4
Sunset Boulevard, Bel-Air Rd. to Beverly Glen Blvd.	67.9	68.6	0.7
Sunset Boulevard, east of Beverly Glen Blvd.	66.2	66.8	0.8
Hilgard Avenue, Sunset Blvd. to Wyton Dr.	62.8	63.5	0.7
Hilgard Avenue, Wyton Dr. to Westholme Ave.	63.4	64.4	1.0

Table 4.9-15 Cumulative Project Roadway Noise Impacts—Summer Session

Roadway Segment	Noise Levels in dBA CNEL		
	Existing Traffic Volumes	Future + Project Traffic Volumes	dBA CNEL
Hilgard Avenue, Westholme Ave. to Manning Ave.	(Church) 66.7	67.3	0.6
	(Multi-Family) 63.5	64.1	0.6
Hilgard Avenue, Manning Ave. to Le Conte Ave.	66.1	66.9	0.8
Hilgard Avenue, Le Conte Ave. to Weyburn Ave.	(Multi-Family) 64.6	65.8	1.2
	(Church) 64.6	65.8	1.2
Hilgard Avenue, Weyburn Ave. to Lindbrook Dr.	64.2	65.2	1.0
Le Conte Avenue, east of Hilgard Ave.	60.2	61.2	1.0
Gayley Avenue, Weyburn Ave. to Le Conte Ave.	67.1	65.5	-1.6
Gayley Avenue, Le Conte Ave. to Strathmore Pl.	66.3	66.8	0.5
Gayley Avenue, Strathmore Pl. to Veteran Ave.	64.9	65.6	0.7
Strathmore Place, west of Gayley Ave.	58.4	61.1	2.7
Levering Avenue, Montana Ave. to Veteran Ave.	58.2	61.1	2.9
Levering Avenue, Veteran Ave. to Le Conte Ave.	58.0	58.5	0.5
Levering Avenue, Le Conte Ave. to Weyburn Ave.	66.6	67.0	0.4
Veteran Avenue, Sunset Blvd. to Gayley Ave.	63.7	63.5	-0.2
Veteran Avenue, Gayley Ave. to Levering Ave.	62.3	62.9	0.6
Veteran Avenue, Levering Ave. to Wilshire Blvd.	59.5	60.7	1.2
Veteran Avenue, Wilshire Blvd. to Ohio Ave.	66.7	67.1	0.4
Veteran Avenue, Ohio Ave. to Santa Monica Blvd.	63.1	63.8	0.7
Montana Avenue, Veteran Ave. to Levering Ave.	64.0	64.9	0.9
Montana Avenue, Levering Ave. to Sepulveda Blvd.	62.7	63.8	1.1
Montana Avenue, west of Sepulveda Blvd.	61.0	62.0	1.0
Sepulveda Boulevard, Ovada Pl. to Sunset Blvd.	72.4	73.3	0.9
Sepulveda Boulevard, Sunset Blvd. to Montana Ave.	61.0	62.0	1.0
Sepulveda Boulevard, Wilshire Blvd. to Ohio Ave.	69.6	69.9	0.3
Sawtelle Boulevard, Ohio Ave. to Santa Monica Blvd.	64.1	64.4	0.3
Sawtelle Boulevard, south of Santa Monica Blvd.	65.4	65.7	0.3
Weyburn Avenue, Glendon Ave. to Westwood Blvd.	62.9	62.4	-0.5
Weyburn Avenue, Westwood Blvd. to Gayley Ave.	65.5	62.8	-2.7
Lindbrook Avenue, Westwood Blvd. to Gayley Ave.	63.0	63.5	0.5
Wyton Drive, east of Hilgard Ave.	54.9	56.0	1.1
Westholme Avenue, east of Hilgard Ave.	56.5	57.4	0.9
Manning Avenue, east of Hilgard Ave.	51.4	52.9	1.5
Beverly Glen Boulevard, Wilshire Blvd. to Comstock Ave.	63.2	63.9	0.7
Beverly Glen Boulevard, Comstock Ave. to Sunset Blvd.	53.2	53.5	0.3
Beverly Glen Boulevard, Sunset Blvd. to Greendale Dr.	71.5	72.0	0.5

Table 4.9-15 Cumulative Project Roadway Noise Impacts—Summer Session

Roadway Segment	Noise Levels in dBA CNEL		
	Existing Traffic Volumes	Future + Project Traffic Volumes	dBA CNEL
Beverly Glen Boulevard, Greendale Dr. to Mulholland Dr.	71.1	71.3	0.2
Ohio Avenue, Westwood Blvd. to Veteran Ave.	67.3	67.7	0.4
Ohio Avenue, Veteran Ave. to Sepulveda Blvd.	68.3	68.7	0.4
Ohio Avenue, Sepulveda Blvd. to Beloit Ave.	71.5	71.9	0.4
Ohio Avenue, Beloit Ave. to Sawtelle Blvd.	68.6	68.8	0.2
Ohio Avenue, west of Sawtelle Blvd.	68.4	68.6	0.2
Bellagio Road, Chalon Rd. to Sunset Blvd.	62.3	62.6	0.3
Bel-Air Road, north of Sunset Blvd.	58.1	58.8	0.7

Source: EIP Associates 2002. Calculation data and results are provided in Appendix 8.

With regard to stationary sources, it is also not expected that there would be a cumulatively significant impact. The major stationary source of noise that will be introduced into the Westwood area, due to the land use restrictions that the City of Los Angeles has in place, is rooftop machinery on new commercial development. This type of equipment generally produces noise levels of around 69 to 73 dBA L_{eq} at a distance of fifty feet. Shielding, required by the City and by CEQA mitigation, reduces these noise levels about 15 dBA, to around 54 to 68 dBA L_{eq}. Since this shielding would be expected to be utilized on new development in the commercial areas of Westwood, and commercial areas tend to have higher ambient noise levels, it is not expected that these stationary sources would result in a significant cumulative increase in permanent ambient noise levels and the impact would be less than significant. The 2002 LRDP impact is also less than significant. Development under the 2002 LRDP will occur on-campus, as opposed to within the commercial areas of the Westwood area. Because of the rapid decrease in magnitude of noise as distance increases, the stationary sources due to the 2002 LRDP cannot be expected to contribute to the ambient noise levels existing within those commercial districts. Additionally, campus policies provide for the shielding of these sources as well as the provision of landscaping and other buffers in order to reduce noise levels. Consequently, the 2002 LRDP would not contribute a substantial permanent increase in ambient noise levels and its impact is less than significant. This is considered to be a *less-than-significant* impact.

Future construction in the Westwood area is not expected to result in a cumulatively significant impact in terms of substantial temporary or periodic increases in ambient noise levels. The threshold for this impact with relation to noise impact is whether an increase in 10 dBA or more would occur, which is consistent with the City of Los Angeles' *Draft L.A. CEQA Thresholds Guide* threshold for construction noise impacts. Noise impacts are localized in nature and decrease significantly with distance. Consequently, in order to achieve a cumulative increase in noise of 10 dBA, more than one source emitting high levels of noise would need to be in close proximity to the noise receptor location in question. Because the probability of future construction sites being located in close enough proximity to one another to raise ambient noise levels more than 10 dBA is considered to be remote and unlikely, the cumulative impact is *less than significant*.

It is expected that cumulative effects of the 2002 LRDP construction in combination with other construction in the area would be less than significant. Because of the distance from campus to the commercial districts where temporary or periodic increases in construction noise are expected to be located, and because of the fact that noise levels decrease rapidly with distance, noise levels from 2002 LRDP construction would not be high enough to make a cumulative contribution to ambient levels in Westwood Village, which is the nearest commercial center to campus. The presence of landscaping and buffers, and the existence of campus policies and practices relating to the management of noise, would further reduce noise levels such that they would not contribute to distant locales where significant cumulative impacts are located. This is considered to be a *less-than-significant* impact.

With regard to operations, it is not expected that there will be cumulatively substantial temporary or periodic ambient noise levels. From an operations standpoint, the development envisioned in the Westwood area would not be likely to give rise to new outdoor events, nor would it result in periodic industrial operations, as industrial land uses are not allowed in the Westwood Community Plan area. There will thus not be any significant cumulative impact in this regard. The 2002 LRDP contribution to this impact is also less than significant, because special events are not expected to occur with more frequency than already exists. This is considered to be a *less-than-significant* impact.

Cumulative growth in the Westwood area could bring more people to the area and thereby potentially expose them to excessive noise levels due to the presence of a helipad at the UCLA Medical Center. However, as noted previously, it is not foreseeable that additional aviation uses will be introduced in the Westwood area. Therefore, there would be no significant cumulative impact. Because the UCLA helipad is used only for emergency transport purposes, will expose people to noise for only short periods of time, and will result in a limited zone of exposure to noise, the 2002 LRDP contribution to this cumulative impact is less than significant. This is considered to be a *less-than-significant* impact.

4.9.5 References

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4.10 POPULATION AND HOUSING

This section summarizes existing and forecasted population and housing in the project vicinity. For purposes of the population and housing analysis, the project vicinity includes the City of Los Angeles Subregion,[19] the City of Los Angeles, and the Westwood Community Plan area, as defined in the City's General Plan. This section also presents population, household, and employment growth specifically associated with the 2002 LRDP.

Data used in preparation of this section were obtained from various sources, including the Southern California Association of Governments (SCAG), the U.S. Census (2000), local community plans and specific plans, UCLA staff, previous environmental documentation prepared for the UCLA campus, and other campus data sources. Full bibliographic entries for all reference materials are provided in Section 4.10.5 (References) of this section.

A comment letter issued in response to the Notice of Preparation circulated for the project was received from the Southern California Association of Governments (SCAG). This comment letter requested that the EIR address the consistency of the 2002 LRDP with key policies of the *Regional Comprehensive Plan and Guide* (RCPG).

4.10.1 Environmental Setting

Population

City of Los Angeles Subregion, City of Los Angeles, and the Westwood Community Plan Area

SCAG estimates that the City of Los Angeles Subregion had a total population of about 3.8 million in 2000, including persons residing in households, institutional group quarters (e.g., correctional institutions, hospitals, and juvenile institutions, among others), and noninstitutional group quarters (e.g., university dormitories, group homes, and institutional staff residences, among others).[20] The City of Los Angeles accounted for nearly all of the Subregion's total population in 2000. Of the total, about 41,000

[19] As designated by SCAG, the City of Los Angeles Subregion includes the City of Los Angeles, the City of San Fernando, and small unincorporated areas of Los Angeles County and federal property (e.g., Veterans Administration property near UCLA). UCLA is also located near other Westside cities (e.g., Beverly Hills, Culver City, Santa Monica, and West Hollywood), which are assigned to SCAG's separate Westside Cities Subregion.

[20] For internal consistency in presenting SCAG's forecast, SCAG's estimates for 2000 are used in lieu of actual census data, which are currently available only for population and households in certain areas of the City of Los Angeles and not for employment.

resided in noninstitutional group quarters. The Westwood Community Plan area's total population was about 47,000 in 2000, according to SCAG.

By 2010, SCAG forecasts that the City of Los Angeles Subregion's total population will reach about 4.2 million, and its population in noninstitutional group quarters will be about 45,000 (SCAG Regional Transportation Plan 2001). According to the Los Angeles Citywide General Plan Framework Draft Environmental Impact Report (City of Los Angeles, 1995), the total City of Los Angeles population is forecasted to be about 4.3 million in 2010, and the total Westwood Community Plan area population will be about 50,000. Thus, the rate of population growth in the Westwood Community Plan area over the next decade is forecasted to be slower than in the City as a whole, using either the estimates generated by the City in 1995 or, more recently, by SCAG. These forecasts are summarized in Table 4.10-1 (Population Growth Forecast in the City of Los Angeles Subregion, City of Los Angeles, and Westwood Community Plan Area, 2000–10).

Table 4.10-1 Population Growth Forecast in the City of Los Angeles Subregion, City of Los Angeles, and Westwood Community Plan Area, 2000–10

			Change	
	2000	***2010***	***Growth***	***Percent***
City of Los Angeles Subregion[1]				
Residential Population	3,765,787	4,101,392	335,605	8.9%
Institutional Group Quarters Pop.	38,081	42,386	4,305	11.3%
Noninstitutional Group Quarters Pop.	41,071	44,860	3,789	9.2%
Total Population	*3,844,939*	*4,188,638*[1]	*343,699*	*8.9%*
City of Los Angeles (total)[2]	3,807,860	4,306,564	498,704	13.1%
Westwood Community Plan Area[3]	47,357	49,605	2,248	4.7%

1. SCAG 2001 RTP forecast by partial census tract, City, and Subregion
2. *Los Angeles Citywide General Plan Framework Draft EIR*, 1995
3. *Los Angeles Citywide General Plan Framework Draft EIR*, 1995, including census tract 2653.01, which contains the UCLA campus and Westwood Village

Sources: SCAG 2001 RTP forecast by partial census tract, City and Subregion HR&A, Inc., 2002

UCLA Campus

Student enrollment at UCLA is discussed in this LRDP in terms of student *headcount* enrollment, or the number of individual students registered at UCLA. While the campus operates 365 days a year, the academic calendar consists of the *regular session* (fall, winter, and spring *three-quarter average*) and *summer session* (twelve weeks). Enrolled students may be *undergraduate* (individuals seeking a bachelors or equivalent degree) or *graduate and professional* (individuals seeking a masters or doctoral level degree or a professional degree such as law, management, or medicine). Enrollment is further categorized into *general campus* and *health science* programs. Table 4.10-2 (Table 4.10-2 Existing Student Enrollment On and Off Campus [Three-Quarter Average Headcount]) displays the existing total student headcount enrollment for the regular session.

Table 4.10-2 Existing Student Enrollment On and Off Campus (Three-Quarter Average Headcount)

		2001–02 Baseline[1]
General Campus		
Undergraduate		24,742
Graduate and Professional		7,329
	Subtotal	*32,071*
Health Sciences		
Undergraduate		21
Graduate and Professional		3,827
	Subtotal	*3,848*
Total Enrollment[2]		***35,919***

1. This estimate was developed in summer 2001 to begin the 2002 LRDP planning process and establish a baseline year for the environmental analysis.
2. Includes off-campus health science students and students studying abroad.

Source: UCLA Analysis and Information Management, 2002

The *on-campus population*, or the number of individuals either enrolled or employed on-campus (represented by headcount), consists of students, academic employees, and staff employees. Students make up the largest headcount group, followed by staff and academic employees. The on-campus student population excludes off-campus students, such as medical interns and residents assigned to other locations and students studying abroad. Staff and academic employees who work at off-campus locations or outside normal business hours are also excluded from the on-campus population.

On-campus population figures are adjusted to reflect the fact that all students, faculty, and staff who may be on campus at some time will not be on campus simultaneously on any given day. This is because weekday attendance patterns for students and employees vary due to class and teaching schedules, vacations, sabbaticals, and weekend employment. Due to these variations, the number of enrolled and employed individuals on campus on any given weekday is less than the total number of people enrolled and employed. The *average weekday population* adjusts the total on-campus population to represent the average number of people (students and employees) physically on campus on any given weekday.

Other Individuals comprise the remaining component of the average weekday population. This category includes medical center patients; conference and event participants; volunteers; gallery, museum, library, and recreation facility visitors; vendors; and construction workers.

The existing on-campus population for the regular session and the summer session are shown in Table 4.10-3 (Existing On-Campus Population—Regular Session) and Table 4.10-4 (Existing On-Campus Population—Summer Session), respectively.

Table 4.10-3 Existing On-Campus Population—Regular Session

Type		2001–02 Baseline[1]
Regular Session Headcount (3-quarter average)		
Students Enrolled[2]		34,310
Academic Employees[3]		5,342
Staff Employees[4]		14,703
	Total	**54,355**
Average Weekday Population		
Students, and Academic and Staff Employees[5]		46,080
Other Individuals[6]		10,588
	Total	**56,668**

1. This estimate was developed in summer 2001 to begin the 2002 LRDP planning process and establish a baseline year for the environmental analysis.
2. Includes total general campus and health science enrollment; excludes off-campus health science students and students studying abroad.
3. Includes faculty and other teaching and academic staff and Emeriti; excludes sabbatical leaves, off-campus assignments, evening employees, and student employees (teaching assistants and interns and residents that are included in the enrolled student category).
4. Includes nonacademic career, casual and contract/per diem employees, and excludes off-campus assignments, evening employees, and student employees (that are included in the enrolled student category).
5. Adjusted for varied class and teaching schedules, vacations, sick leave, absences from campus and other less than full-time work or study schedules.
6. Average weekday numbers of Medical Center clinical and affiliated faculty, patients, visitors, and volunteers; pre-school and elementary school children; other campus visitors and volunteers; vendors; and construction workers.

Source: UCLA Analysis and Information Management. 2002

Table 4.10-4 Existing On-Campus Population—Summer Session

		2000 Baseline[1]
Students Enrolled[2]		10,010
Academic Employees[3]		4,722
Staff Employees[3]		12,983
	Total	**27,715**
Average Weekday Population		
Students[4]		8,979
Academic/Staff Employees[5]		14,706
Other Individuals[6]		10,441
	Total	**34,127**

1. Summer 2000 reflects the baseline headcount enrollment before State funding incentives increased enrollment in Summer 2001 to approximately 14,000. Selection of 2000 as the baseline year for planning purposes allows for an assessment of the total summer session growth anticipated for summer sessions through 2010, including increases that occurred in Summer 2001.
2. Total headcount for both on-campus summer sessions (i.e., Sessions A and C combined; Session B occurs entirely off-campus).
3. Regular session academic and staff employee headcount adjusted to reflect lower employment during summer months.
4. Average weekday summer session student headcount is estimated to be equal to the peak Session A headcount enrollment. Enrollment in Session A is always higher than Session C. While Session C enrollment is projected to increase over the 2002 LRDP planning horizon, it will remain below Session A.
5. Adjusted for varied class and teaching schedules, vacations, sick leave, absences from campus and other less than full-time work or study schedules.
6. Average weekday numbers of Medical Center clinical and affiliated faculty, patients, visitors, and volunteers; pre-school and elementary school children; other campus visitors and volunteers; vendors; and construction workers.

Source: UCLA Analysis and Information Management, 2002

Households and Housing

City of Los Angeles Subregion, City of Los Angeles, and the Westwood Community Plan Area

SCAG estimates that there were about 1.3 million households[21] in the City of Los Angeles Subregion in 2000 and forecasts that this number will increase by about 141,000 by 2010. Nearly all of this growth (about 134,000 households) is forecasted to occur in the City of Los Angeles. In the Westwood Community Plan area, SCAG forecasts about 1,500 additional households by 2010, which, like the population forecast for the area, represents a lower rate of growth than in the surrounding City and Subregion between 2000 and 2010. SCAG's household forecast is summarized in Table 4.10-5 (Household Growth Forecast in the City of Los Angeles Subregion, City of Los Angeles, and Westwood Community Plan Area, 2000–10).

Table 4.10-5 Household Growth Forecast in the City of Los Angeles Subregion, City of Los Angeles and Westwood Community Plan Area, 2000–10

			Change	
	2000	*2010*	*No.*	*Percent*
City of Los Angeles Subregion[1]	1,276,318	1,417,670	141,352	11.1%
City of Los Angeles[2]	1,266,670	1,400,613	133,943	10.6%
Westwood Community Plan Area[3]	18,833	20,361	1,528	8.1%

1. SCAG 2001 RTP forecast by partial census tract, City, and Subregion
2. *Los Angeles Citywide General Plan Framework Draft EIR*, 1995
3. *Los Angeles Citywide General Plan Framework Draft EIR*, 1995, including census tract 2653.01, which contains the UCLA campus and Westwood Village

Source: HR&A Inc., 2002

According to the 2000 U.S. census, the City of Los Angeles had 1,337,706 housing units, of which 4.7 percent were vacant. About one-third (38.6 percent) of the occupied units were owner-occupied and about two-thirds (62.4 percent) were renter-occupied. Comparable data for 2000 are not yet available for the Los Angeles City Subregion or the Westwood Community Plan area. It has been estimated that as of 1996, there were 19,640 housing units in the Westwood Community Plan area, most of which (84.4 percent) were in multiple-unit buildings (e.g., apartments, townhomes and condominiums) (Los Angeles Department of City Planning 1998).

[21] "Household" is the same as "occupied housing unit." Occupied units plus vacant units equals an area's total number of housing units. SCAG forecasts households, not housing units.

UCLA Campus

The 1990 LRDP incorporated the 1990 Student Housing Master Plan (SHMP) that provided for the continuing development of on-campus student housing to enhance the educational experience for students and continue the evolution of UCLA from a commuter to a residential campus. The primary goal of the 1990 SHMP was to house approximately 50 percent of UCLA student enrollment in a combination of University-owned housing or private sector housing within one mile (or walking distance) of campus by 2005. In academic year 2001–02, approximately 46 percent of the campus student enrollment was accommodated. With completion of the Southwest Campus Housing and Parking project, which began construction in 2002 and would provide approximately 2,000 beds on campus for single graduate and upper division students, the 2005 goal of the 1990 SHMP will be met.

Table 4.10-6 (Number of Students Housed in University-Owned or Private-Sector Housing, 2001–02) presents the existing total number of students housed in university-owned and private-sector housing within walking distance of campus.

Table 4.10-6 Number of Students Housed in University-Owned or Private-Sector Housing, 2001–02

	Actual	Percentage of Students Housed
University-Owned[1]		
Undergraduate	8,294	33%
Graduate/Professional	1,103	10%
Subtotal	9,397[2]	26%
Private Sector[3]	7,225	20%
Total	**16,622**	**46%**

1. Includes students housed in on-campus and University-owned apartments off campus.
2. Excludes 427 post-doctoral scholars living in University-owned apartments.
3. Within walking distance to campus.

Source: UCLA Student Housing Master Plan, 2001

As discussed in Section 4.11.3 (Public Services, Schools) of this EIR, about two-thirds (18,056) of existing UCLA employee households are located in the City of Los Angeles, and the largest concentration of them (8,986) reside in neighborhoods on the Westside. About another one-quarter (5,898) reside in other Los Angeles County cities, and the balance (1,950) reside in other areas outside Los Angeles County.

4.10.2 Regulatory Framework

Federal

There are no federal population and housing regulations applicable to the 2002 LRDP.

State

There are no State population and housing regulations applicable to the 2002 LRDP.

4.10.3 Project Impacts and Mitigation

Analytic Method

This analysis considers population and household growth that would occur with implementation of the 2002 LRDP and whether this growth is within regional forecasts and/or whether it would result in the displacement of housing or people.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on population and housing if it would result in any of the following:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)[22]
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere

As mentioned in Section 4.0 (Introduction to the Analysis) of this document, the analysis of impacts is based upon one of two factors, either population or the campus built environment, depending upon the type of impact. Physical impacts related directly to LRDP population growth are addressed in transportation/traffic, air quality, noise, population and housing, public services (police protection and

[22] Indirect LRDP-related population and housing impacts are considered significant if the scale of growth associated with the LRDP would exceed growth forecasted by SCAG for the Los Angeles City Subregion, the geographic area used by SCAG for determining conformity with its Regional Comprehensive Plan and Guide.

school capacity), and recreation. Impacts in all other issues areas, including aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, utilities, and public services (fire protection) are analyzed on the basis of factors such as the proposed location of development, the proposed size (square footage) and type of development, acreage of ground disturbance, and known or expected presence of environmental resources (i.e., biological or cultural resources).

Effects Not Found to Be Significant

Threshold	Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The Initial Study determined that implementation of the 2002 LRDP would not require the demolition of any existing on-campus housing; therefore, the construction of replacement housing would not be necessary. Consequently, the Initial Study concluded that no additional analysis of housing displacement would be required in this EIR.

Threshold	Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The Initial Study determined that implementation of the 2002 LRDP would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No existing housing will be demolished as part of the 2002 LRDP. Although there may be a conversion of some triple-occupancy dormitory rooms to double-occupancy dormitory rooms, these students will be accommodated in other on-campus housing, and the 2002 LRDP will not displace substantial numbers of housing that could require construction of replacement housing elsewhere. Consequently, the Initial Study concluded that no additional analysis would be required in this EIR.

Impacts and Mitigation

Threshold	Would the project induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?

Impact LRDP 4.10-1 Implementation of the 2002 LRDP would accommodate population growth on the UCLA campus. This is considered a *less-than-significant* impact.

A total campus population comparison of the baseline conditions with that projected for 2010–11 is shown in Tables 4.10-7 (Existing and Projected On-Campus Population—Regular Session) and Table 4.10-8 (Existing and Projected On-Campus Population—Summer Session) for the regular and summer sessions, respectively. Table 4.10-8 is provided on the following page.

Table 4.10-7 Existing and Projected On-Campus Population—Regular Session

	Baseline 2001–02[1]	Projected 2010–11	Growth
Regular Session Headcount (3-quarter Average)			
Students Enrolled[2]	34,310	36,445	2,135
Academic Employees[3]	5,342	6,147	805
Staff Employees[4]	14,703	15,793	1,090
Total	***54,355***	***58,385***	***4,030***
Average Weekday Population			
Students and Academic/Staff Employees[5]	46,080	49,506	3,426
Other Individuals[6]	10,588	12,035	1,447
Total	***56,668***	***61,541***	***4,873***

1. This estimate was developed in summer 2001 to begin the 2002 LRDP planning process and establish a baseline year for the environmental analysis.
2. Includes total general campus and health science enrollment and excludes off-campus health science students and students studying abroad.
3. Includes faculty and other teaching and academic staff and Emeriti and excludes sabbatical leaves, off-campus assignments, evening employees, and student employees (i.e., teaching assistants and interns and residents that are included in student enrollment numbers).
4. Includes nonacademic career, casual and contract/per diem employees, and excludes off-campus assignments, evening employees, and student employees (student employees are included in student enrollment numbers).
5. Adjusted for varied class and teaching schedules, vacations, sick leave, absences from campus, and other less than full-time work or study schedules.
6. Average weekday numbers of Medical Center clinical and affiliated faculty, patients, visitors, and volunteers; pre-school and elementary school children; other campus visitors and volunteers; vendors; and construction workers.

Source: UCLA Analysis and Information Management, 2002

As previously described, UCLA has been asked to accommodate an increase of 4,000 full-time-equivalent (FTE) students. The term *full time equivalent* students, or *FTE* students, is a key budget and planning metric for the University of California. Enrollment projections are derived from the number of budgeted FTE students. Moreover, State funding to support enrollment growth of 4,000 FTE students at UCLA is provided on the basis of pre-established student FTE levels each academic year. The number of FTE students differs from the number of individual students (measured in terms of *headcount*) who are enrolled at the campus to take classes. Every 45 units of coursework taken by undergraduate students at

Table 4.10-8 Existing and Projected On-Campus Population—Summer Session

	Baseline 2000[1]	*Projected 2010*	*Growth*
Summer Session Headcount			
Students Enrolled[2]	10,010	16,560	6,550
Academic Employees[3]	4,722	5,532	810
Staff Employees[3]	12,983	14,214	1,231
Total	***27,715***	***36,306***	***8,591***
Average Weekday Population			
Students[4]	8,979	12,751	3,772
Academic/Staff Employees[5]	14,706	16,332	1,626
Other Individuals[6]	10,441	12,035	1,594
Total	***34,126***	***41,118***	***6,992***

1. Summer 2000 baseline reflects the actual headcount before State funding incentives increased enrollment in Summer 2001 to approximately 14,000. Selection of 2000 baseline as the year for planning purposes allows for an assessment of the total growth anticipated for summer sessions through 2010, including the increases occurred in Summer 2001.
2. Total headcount for both on-campus summer sessions (i.e., Sessions A and C combined; Session B occurs entirely off-campus).
3. Regular session academic and staff employee headcount adjusted to reflect lower employment during summer months (e.g., academic employees with nine-month teaching appointments who do not conduct research on campus during the summer).
4. Average weekday summer session student headcount is estimated to be equal to the peak Session A headcount enrollment. Enrollment in Session A is always higher than Session C. While Session C enrollment is projected to increase over the 2002 LRDP planning horizon, it will remain below Session A.
5. Adjusted for varied class and teaching schedules, vacations, sick leave, absences from campus and other less than full-time work or study schedules.
6. Average weekday numbers of Medical Center clinical and affiliated faculty, patients, visitors, and volunteers; pre-school and elementary school children; other campus visitors and volunteers; vendors; and construction workers.

Source: UCLA Analysis and Information Management, 2002

UCLA during an academic year is equivalent to one FTE student, based on the concept of an entering freshman making orderly progress over four years toward a 180-unit degree. At the graduate level, 36 units of coursework is equivalent to one FTE, and in the health sciences every student headcount is considered to be one FTE.

If each student (undergraduate or graduate) took a full-time course load, student FTE would equal the student headcount enrollment. Student FTE is somewhat lower than the total student headcount, however, because students currently take slightly less than a full-time course load on average. For example, over the three-quarter regular session, undergraduate students currently average approximately 42 units, or about 93 percent of the defined full-time course load. This difference is compounded in the summer when enrollment consists primarily of undergraduate students who take only a little more than eight units of course work on average, far below the 45 units that make up a full FTE. Thus, each headcount student currently attending summer session equals slightly less than one-fifth of an FTE on average. It is because of these differences between the defined full-time course (45 units) load and the actual number of units taken by students that causes student FTE to differ from student headcount enrollment.

As previously discussed, in 1999 the University of California was asked to take additional students to meet the needs of California's growing population. The request was framed in terms of a growth target of 4,000 FTE students to be added to UCLA's General Campus academic program. At that time, UCLA's planned General Campus three-quarter average regular session FTE target was 28,900 FTE; the Health Sciences regular session FTE level was approximately 3,719 FTE; and 1,210 FTE comprised the summer session. Thus, with the proposed additional 4,000 FTE students, the total 2010–11 budgeted FTE target for the UCLA campus is 37,829 FTE students, which is used to derive headcount projections for both the regular and summer sessions.

Development of student headcount projections is subject to uncertainties that stem from difficulty in estimating future course loads that students will take and future State funding availability. For planning purposes, the LRDP headcount projections account for this uncertainty in order to ensure sufficient capacity to accommodate the growth in student enrollment and also to make certain that the potential environmental consequences of enrollment growth are adequately addressed. Therefore, the student headcount projections shown in Table 4.10-9 (Projected Student Enrollment [On and Off Campus]) represent the highest headcount growth that is anticipated to occur in both the regular and summer sessions through academic year 2010–11. Actual headcount enrollment will most likely be lower than the estimates for both periods, and growth patterns could vary between the regular and summer sessions over the planning horizon. Enrollment growth in both the regular and summer sessions is also not anticipated to be greater than the 2010–11 total student FTE budget target previously described.

Table 4.10-9 Projected Student Enrollment[1] (On and Off Campus)

	2001–02 Baseline[2]	2010–11 Projection
Regular Session (three-quarter average headcount)		
General Campus and Health Sciences		
Undergraduate	24,763	25,661
Graduate and Professional	11,156	11,969
Total[3]	***35,919***	***37,630***
	2000 Baseline[4]	*2010 Projection*
Summer Session (total enrolled headcount)		
General Campus and Health Sciences[5]	10,010	16,560

1. Many of the students that attend summer session are also enrolled in regular session. Because regular session headcount is represented by the 3-quarter average, and summer session headcount is represented by the total number of students enrolled, it is not meaningful to combine the regular and summer session projections (i.e., the sum of the two would double-count a number of students enrolled in both sessions).
2. This estimate was developed in Summer 2001 to begin the 2002 LRDP planning process and establish a baseline year for the environmental analysis.
3. Includes off-campus health science students and students studying abroad.
4. Summer 2000 baseline reflects the actual headcount before State funding incentives increased enrollment in Summer 2001 to approximately 14,000. Selection of 2000 as the baseline year for planning purposes allows for an assessment of the total growth anticipated for summer sessions through 2010, including the increases that occurred in Summer 2001.
5. Summer sessions are almost exclusively attended by undergraduate students.

Source: UCLA Analysis and Information Management, 2002

As indicated by Table 4.10-7, the on-campus population of students, academic employees and staff employees would grow by approximately 7.4 percent during regular session over the 2002 LRDP planning horizon. However, summer session headcount growth for students and academic and staff employees is anticipated to increase approximately 31 percent over the same time period. The higher growth percentage for summer reflects the fact that summer sessions have traditionally had a much smaller enrollment compared to the regular session. This circumstance will change as the University encourages summer school attendance as a way of accommodating enrollment increases to make better use of existing facilities when campus activity is lower. Comparison of anticipated growth between regular and summer session shows that even with the larger percentage of student growth projected for the summer session, the overall campus population during summer would remain substantially below that of the regular session over the 2002 LRDP planning horizon.

In Table 4.10-9, regular session headcount enrollment is presented as a *three quarter average* of students enrolled in the fall, winter, and spring quarters, whereas, summer enrollment represents the *total* number of students that enroll in one or more classes over the twelve-week summer session. Many of the students that attend summer session are also enrolled in the regular session. Consequently, it is not meaningful to combine the student headcount estimates for regular and summer sessions, as the sum of the two would double-count a number of students enrolled in both sessions.

UCLA is acknowledged as part of the Westwood Community Plan Area in both the 1996 General Plan Framework and the 1996 General Plan Framework Final EIR (Framework). The Framework relied upon data from the 1990 U.S. Census, which is consistent with the data relied upon in the 1990 LRDP EIR and SCAG's regional growth forecast as reflected in the Growth Management Chapter of the 1994 Regional Comprehensive Plan and Guide (RCPG). The Growth Management Chapter of the RCPG provides guidelines for development in relation to growth and land development issues. Included are employment, housing, and population forecasts for each subregion.

According to the Framework, the population in the City of Los Angeles was 3,485,399 persons in 1990, with an anticipated growth in population to 4,306,564 by the year 2010, which represents an overall growth rate of 23.6 percent (approximately 1.2 percent per year). In the Westwood Community Plan Area, the Framework anticipated the growth rate to be approximately 20.1 percent between 1990 and 2010, or 1.0 percent per year, given a 1990 population of 41,297 and a projected 2010 population of 49,605. Given UCLA's anticipated population growth of approximately 12 percent between 1990 and 2010, or 0.6 percent per year, population growth at UCLA is well below the overall growth anticipated in the Westwood Community Plan area, as well as in the City of Los Angeles. Furthermore, some portion of the population growth already resides in the region, and the 2002 LRDP could represent an even smaller population growth.

The Framework also concludes that population growth within the City of Los Angeles, which is anticipated to be 4,306,564 persons by 2010, is within SCAG's population forecast of 4,365,469 for this same time period (RCPG 1994). The 2002 LRDP was also determined by SCAG "not to be regionally significant" in its comment letter on the Notice of Preparation for the 2002 LRDP Draft EIR (SCAG 2001).

In summary, the 2002 LRDP would accommodate the anticipated enrollment growth and the accompanying population growth, as directed by the University of California in response to the State Legislature within the remaining approved physical development capacity of 1.71 million gsf previously analyzed in the 1990 LRDP Final EIR. The 2002 LRDP does not propose any new physical development beyond that already approved in the 1990 LRDP. In addition, the growth in UCLA on-campus population is well below regional and local growth projections. Considering all of these factors, the scope of the 2002 LRDP has been fully considered and evaluated by local and regional plans and policies developed by the City of Los Angeles and SCAG, and the 2002 LRDP accommodates, rather than induces, population growth. A less-than-significant population impact would occur, and no mitigation is required.

Impact LRDP 4.10-2 **Implementation of the 2002 LRDP would not result in a substantial increase in demand for housing. This is considered a** ***less-than-significant*** **impact.**

Students residing in campus dormitories are counted in the "group quarters" component of SCAG's population forecast, while students residing in homes and apartments on or off campus as well as employee households, are counted in the forecast's "residential population." Campus visitors are not considered "population" in this context, because their presence in the region, as distinct from their interest in traveling to UCLA, is not a function of the LRDP. Students residing in on-campus dormitories are not defined as "households," and, therefore, they are not included in SCAG's household forecast. Students residing in homes and apartments, as well as academic and staff employee households, are counted in SCAG's household forecast. Full-time and part-time, nonstudent academic and staff employees working on campus are included in SCAG's employment forecast. In all cases, the LRDP annual population forecast is included within SCAG's growth forecast.

The increase in student enrollment is anticipated to result in an increased demand for, and use of, campus housing. The updated Student Housing Master Plan (SHMP), dated March 2001, sets new housing goals for the campus to address student housing demand through 2010. Table 4.10-10 (Number of Students Housed in University-owned or Private-Sector Housing, 2010–11) presents the existing total number of students housed in university-owned and private-sector housing within walking distance of the campus in relation to the SHMP goals for 2010–11.

As shown by Table 4.10-10, by 2010–11, the 2001 SHMP seeks to accommodate the housing needs of approximately 58 percent of student enrollment, thereby continuing the evolution of UCLA from a commuter to a residential campus. As a result, the 2002 LRDP includes a specific housing project to construct up to 2,000 beds of undergraduate student housing in the Northwest zone, which could accommodate a portion of the growth in student population during the regular session, as shown in Table 4.10-7, which indicates that 2,135 additional students would be on-campus by 2010–11. While the growth in the summer is greater, as reflected by Table 4.10-8, there is ample on-campus housing available during the summer for all students who request it.

Table 4.10-10 Number of Students Housed in University-Owned or Private-Sector Housing, 2010–11

	2001–02 Actual	2001–02 Percentage of Students Housed	2010 Goal	2010–11 Estimated Percentage of Students Housed
University Owned[1]				
Undergraduate	8,294	33%	10,390	41%
Graduate / Professional	1,103	10%	4,109	34%
Subtotal	*9,397*[2]	*26%*	*14,499*	*39%*
Private Sector[3]	7,225	20%	7,225	19%
Total	***16,622***	***46%***	***21,724***	***58%***

1. Includes students housed in on-campus and University owned apartments off campus.
2. Excludes 427 post-doctoral scholars living in University-owned apartments.
3. Within walking distance to campus.

Source: UCLA Student Housing Master Plan, 2001

The 2002 LRDP envisions an increase in approximately 1,895 academic and staff employees during the regular session and 2,041 academic and staff employees during the summer session, as reflected by Tables 4.10-7 and Table 4.10-8, respectively. In addition, based on the direct-to-indirect employment impact ratio used in the *UCLA Economic Impact Study* (e.g., 0.68 direct and indirect jobs for every direct job), the 2002 LRDP's 1,895 total additional academic and staff employees could be expected to generate 1,288 indirect jobs distributed throughout Los Angeles County. SCAG forecasts that 448,000 additional jobs will be created in Los Angeles County over about the same 10 year period, making the increase in jobs attributable to the LRDP approximately 0.7 percent of the total (SCAG, 2001 Regional Transportation Plan). A portion of these employees already reside in the area (or are also enrolled as students at UCLA) and would not require new housing. It is possible that faculty and staff added as a result of the 2002 LRDP may seek housing opportunities in the Westwood Community Plan area, as well as other areas, such as West Los Angeles, Santa Monica, Culver City, and/or the San Fernando Valley. However, the specific distribution of faculty and staff housing in these and other areas is speculative and is driven by many factors, such as housing, cost, choice of school district, and personal preferences that are outside of the control or influence of UCLA. As discussed in Section 4.11-3 (Public Services, Schools) of this EIR, if the project's 1,895 additional employees distribute their households in the same patterns as existing employee households, about two-thirds (1,321) would be expected to locate in the City of Los Angeles, and a large portion of these (658) would choose neighborhoods on the Westside. About another one-quarter (432) would reside in other Los Angeles County cities, and the balance (84) would locate in other areas outside Los Angeles County. As indicated above, the current vacancy rate for housing in the City of Los Angeles is 4.7 percent, or 62,294 units. In addition, it is expected that additional new housing stock will be constructed in the City of Los Angeles, including low and moderate income housing, in accordance with housing goals and policies set forth in the City of Los Angeles General Plan Housing Element and state law. SCAG's Regional Housing Needs Assessment (2000) has identified that the City of Los Angeles is to provide an additional 60,280 housing units between 1998 and 2005 to accommodate anticipated demand from population growth. While the number of new housing units to be constructed and future vacancy rates are unknown, the relatively small population increases associated with the 2002 LRDP are included within SCAG projections, and, thus, are imbedded within the anticipated future demand identified by SCAG for housing in the City of Los Angeles. As a result, the 2002 LRDP will not place an additional burden on the ability of the City of Los Angeles to satisfy its share of regional housing needs during the period of the 2002 LRDP, and thus will have a less-than-significant impact on housing supply. It should further be considered that most staff positions (which are the majority of the additional jobs that would be added as a result of the 2002 LRDP) involve vocational opportunities that are generally found in most communities, and may not offer a unique enough opportunity to induce job-seekers to relocate to the area for the sole purpose of filling these positions. Due to the existing unemployment rate in Los Angeles County, which has averaged 7.5 percent over the last ten years (Annual Average Labor Force Data for Counties, State of California, Employment Development Department, 1992-2002), it is expected that the vast majority of additional staff positions will be filled by qualified area residents. Accordingly, it is anticipated that most of the new staff positions would be filled by persons already residing in the area, and would not create new demand for additional housing.

As indicated above, SCAG forecasts that an additional 448,000 additional jobs will be created in Los Angeles County by 2010, making the increase in jobs attributable to the LRDP approximately 0.7 percent of the total. Since the growth attributable to the LRDP is included in the SCAG forecasts, it will not result in employment growth in excess of SCAG projections, and a less-than-significant impact would occur. No mitigation is required.

4.10.4 Cumulative Impacts

The geographic context for the analysis of cumulative population and housing impacts is the SCAG six-county region. The cumulative context within this geographic area includes all growth envisioned by SCAG in the Regional Transportation Plan Growth Forecast and the Regional Comprehensive Plan and Guide, which includes all growth anticipated to occur under the implementation of the City of Los Angeles General Plan Framework, which is wholly consistent with SCAG's regional growth forecasts and development of the related projects provided in Table 4-1 in Section 4.0 (Introduction to the Environmental Analysis).

UCLA is acknowledged as part of the Westwood Community Plan Area in the City of Los Angeles General Plan Framework, which anticipated a population growth rate of approximately 20.1 percent between 1990 and 2010, or 1.0 percent per year. Given UCLA's anticipated population growth of approximately 12 percent between 1990 and 2010, or 0.6 percent per year, the rate of growth at UCLA is well below the overall growth anticipated in the Westwood Community Plan area, as well as in the City of Los Angeles. The Framework also concluded that population growth within the City of Los Angeles, which is anticipated to be 4,306,564 persons by 2010, is within SCAG's population forecast of 4,365,469 for this same time period, as reflected in the 1994 Regional Comprehensive Plan and Guide (RCPG). Thus, to the extent that future population growth in the City of Los Angeles remains within SCAG projections, such growth would be *less than significant*.

However, even in the event that regional population growth is considered to constitute a significant cumulative impact, the 2002 LRDP does not propose any new development beyond that already approved in the 1990 LRDP. The scope of the proposed 2002 LRDP has, thus, been fully considered and evaluated by local and regional plans and policies developed by the City of Los Angeles and SCAG. UCLA's contribution to population impacts would not be cumulatively considerable and would be *less than significant*.

As indicated above, SCAG has prepared a Regional Housing Needs Assessment (RHNA), which identifies the anticipated future housing demand within each jurisdiction in the SCAG six-county region through 2005, as well as the proportionate share of new housing units needed in each jurisdiction to satisfy this demand. Pursuant to State Law, each jurisdiction is required to plan for the attainment of the share of new housing identified in the RHNA as part of the Housing Element of that jurisdiction's General Plan.

Because it is impossible to predict the extent to which each jurisdiction will satisfy its obligation to provide the identified share of housing in the future, assessment of future cumulative impacts related to regional housing supply and demand would demand a great deal of speculation. Depending upon the degree of regional compliance with the housing requirements identified in the RHNA, future impacts from cumulative development in the six-county SCAG region could be significant. However, as noted above, when compared to the existing number of vacant units in the City of Los Angeles (which is only a portion of the entire SCAG region) and the number of new housing units to be constructed in the City of Los Angeles, the anticipated contribution of the 2002 LRDP to cumulative regional housing demand would not be cumulatively considerable. Moreover, due to the existing unemployment rate and the nature of many of the new employment positions that would be created by the 2002 LRDP, it is expected that many of the new employees would be drawn from current residents of the City of Los Angeles, and, to a lesser degree, the six-county SCAG region. As a result, the contribution of the 2002 LRDP to regional cumulative housing impacts would not be cumulatively considerable, and would be *less than significant*.

4.10.5 References

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4.11 PUBLIC SERVICES

This section evaluates the effects on public services related to implementation of the 2002 LRDP by identifying anticipated demands and existing and planned service availability. For purposes of this EIR, public services consist of (1) fire protection, (2) police protection, and (3) schools. Parks, while described as a public service in Appendix G of the CEQA Guidelines, are analyzed separately in Section 4.12 (Recreation). Impacts related to emergency access are analyzed in Section 4.13 (Transportation/Traffic) of this EIR.

Data used to prepare this section was taken from various sources, including previous environmental documentation prepared for the UCLA campus, other campus data sources, and by contacting service providers. Full bibliographic entries for all reference materials are provided in Section 4.11.5 (References) of this section.

No comment letters related to public services were received in response to the Notice of Preparation circulated for the project.

4.11.1 Fire Protection

Environmental Setting

The Los Angeles City Fire Department (LAFD) provides fire suppression and rescue operations for the UCLA campus. Fire alarm calls on campus are received by the UCPD command center staff, who screen calls, determine the call location, and then alert the LAFD.

Fire Stations Nos. 37, 71, and 92 have primary responsibility for a first alarm call to the campus. In cases where there is a need for backup support, additional City fire stations would provide the necessary assistance. Fire Station No. 37 is located at 1090 Veteran Avenue in the Southwest zone, approximately 1.3 miles from the furthest part of the campus. This station, which responds to the majority of emergency calls to the campus, includes a truck company, a two-piece engine company, a rescue ambulance, and a fire chief command car. As of 2001, the station is staffed by a battalion chief, twelve sworn fire personnel, two paramedics, and a staff assistant. Initial response times to the campus range from three to six minutes, depending upon the nature of the call. In addition to LAFD paramedics, campus emergency technicians from the Medical Center respond to a number of emergency calls both on and off campus (personal communication, Captain Carlson, LAFD Operation Control Division, 2002).

Three principal LADWP water supply service connections provide fire flows to the campus at a rating of 5,000 gallons per minute with a supply pressure of between 135 pounds per square inch (psi) and185 psi. There is a campus pressure-reducing station at each connection to regulate and control the pressure throughout the campus water grid system. The system is designed based on any two of the three service connections being on line, assuming one of the three might be out of service for any reason. The design capacity of the system is not based on the normal campus demand, but rather on the provision of adequate fire flows to each campus building, which are greater than normal water demands. The system design is based on a Fire Water Supply and Distribution System Study performed in 1978 and 1988, both by Gage-Babcock and Associates Fire Protection Consultants, which assumed full implementation of the 1990 LRDP (personal communication, Steve Sebolsky, UCLA, 2002).

Fire prevention programs, practices, and procedures for the campus are managed by the Environment, Health, and Safety (EH&S) Fire Protection Section, which consists of a staff of five inspectors as of 2001. UCLA is currently hiring for two open positions which, when filled, will bring the total fire protection staff to seven inspectors (personal communication, Gia Dowling, UCLA, 2002). Their primary responsibility is to assist in enforcing State building codes and regulations, which involves reviewing all plans for new construction and renovation, as well as conducting inspections of existing campus buildings. EH&S is also responsible for training UCLA staff and building coordinators on emergency procedures and safety techniques. The Campus Fire Marshal reviews and approves all individual development plans prior to construction to ensure that adequate fire flows will be maintained, an adequate number of fire hydrants will be provided in the appropriate locations, and circulation and design features will allow adequate emergency vehicle access in compliance with the Los Angeles Municipal Code. In addition, the Campus Fire Marshal inspects buildings during and after construction, and buildings can only be occupied with the approval of the Marshal.

Regulatory Framework

Federal

There are no federal fire protection regulations applicable to the 2002 LRDP.

State

State fire regulations are set forth in Sections 13000 *et seq.* of the California Health and Safety Code, which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire

Marshal enforces these regulations and building standards in all State-owned buildings, State-occupied buildings, and State institutions throughout California, including the University of California.

Project Impacts and Mitigation

Analytic Method

Significant impacts on fire protection services would result from an increase in population or building area that results in lengthened response times, inadequate fire flows, and/or the need for new or altered facilities. The LAFD determines adequacy of fire protection services by utilization of response times as performance objectives (personal communication, Captain Carlson, LAFD, 2001). Therefore, the following analysis is based on this performance objective rather than service ratios, which are not utilized by the LAFD. The Los Angeles City Fire Department has an average response time of three to six minutes (personal communication, Captain Carlson, LAFD, 2001). The standard for an urban level of service requires that an engine company arrive on the scene within five minutes, 90 percent of the time, with four fire fighters per Engine Company.

Thresholds of Significance

The following threshold of significance is based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on fire protection services if it would

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

Effects Not Found to Be Significant

The Initial Study did not indicate any Effects Not Found to Be Significant related to fire protection services; therefore, all potential fire protection impacts are discussed in this EIR.

Impacts and Mitigation

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

Impact LRDP 4.11-1 **Implementation of the 2002 LRDP could increase the demand for fire protection services, but would not require the construction of new or physically altered facilities to accommodate the increased demand and maintain acceptable response times and fire flows. This is considered a *less-than-significant* impact.**

The UCLA campus is served by Fire Station No. 37, which is located in the Southwest zone, approximately 1.3 miles from the furthest part of the campus. The Los Angeles City Fire Department has an average response time of three to six minutes to campus, which meets the service goal of five minutes or less at least 90 percent of the time (personal communication, Captain Carlson, LAFD, 2001). Furthermore, as required by the Los Angeles Municipal Code (Section 57.09.06, as amended, June 1997), the furthest point on campus is not located more than 1.5 miles from the nearest engine company (Fire Station No. 37), which is within the maximum response distance allowed by Code for commercial, industrial, and/or high-density residential uses. The Code allows response distances to exceed 1.5 miles if new structures are constructed with automatic fire sprinkler systems, which is standard practice for all campus buildings. The City of Los Angeles General Plan Framework EIR also concluded that fire protection services would be adequate to serve the City's population through 2010. Because development under the 2002 LRDP would occur entirely within campus boundaries, which can be adequately served within the established response times and distances, no new, expanded, or altered fire protection services or facilities are required to maintain acceptable response times or distances.

The quantity of water required for fire protection (i.e., fire flows) varies and is dependent upon many factors that are specific to each particular building, such as the floor area, type of construction, expected occupancy, type of activities conducted within the building, and the distance to adjacent buildings. The Campus Fire Marshal reviews and approves all individual development plans prior to construction to ensure that adequate fire flows will be maintained (including localized pipe upgrades or connections that might be required to connect new buildings to the system), an adequate number of fire hydrants will be provided in the appropriate locations, and circulation and design features will allow adequate emergency vehicle access in compliance with the Los Angeles Municipal Code. In addition, the campus will continue to comply with all regulations of California Health and Safety Code Sections 13000 *et seq.*

pertaining to fire protection systems, including provision of State-mandated smoke alarms, fire extinguishers, appropriate building access, and emergency response notification systems. Impacts associated with the provision of fire protection services are considered less than significant.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.11-1	*Fire alarm connections to the University Police Command Center shall continue to be provided in all new and renovated buildings to provide immediate location information to the Los Angeles Fire Department to reduce response times in emergency situations.*

Following PP 4.11-1 would ensure that this impact remains less than significant by facilitating emergency response, which has historically allowed the LAFD to provide acceptable response times. No mitigation is required.

4.11.2 Police Services

Environmental Setting

As with other University campuses, the University of California Police Department (UCPD) has primary responsibility for the campus and all off-campus properties owned and operated by UCLA. Within a one-mile radius of University-owned property, the UCPD has concurrent jurisdiction with the Los Angeles police department (LAPD). UCPD is often the first responder at properties around the campus and may take primary responsibility for student-oriented events off campus.

University Police

The UCPD is part of the California State Police force, and its jurisdictional responsibilities are articulated in Section 92600 of the State of California Education Code. The UCPD station is located on campus adjacent to the Energy Systems Facility, at the northwest corner of the intersection of Charles E. Young Drive South and Westwood Plaza. In addition to the main headquarters, the UCPD also operates a substation on Broxton Avenue at the Westwood Village Community Services Center. The Community Center, a cooperative effort of the LAPD, the UCPD, and the Westwood Merchants Association, began operation early in 1996, and is intended to serve as a focal point to provide community information in an ongoing effort to reduce crime in the Westwood area. Funding for the Center is provided by the Westwood business community, the Los Angeles City Council, and the University.

As a part of the UCLA Community Safety Department, the UCPD force currently numbers 60 sworn officers (personal communication, Nancy Greenstein, UCPD, 2002). Personnel are used in crime prevention, investigations, and administration. All sworn officers are available on an on call basis to respond, as needed, in emergency situations. In addition, although not formally part of the UCPD, there are 29 full-time employees in the Parking Patrol Division, and the Community Safety Department trains and employs approximately 65 to 100 students on a part-time basis as Community Service Officers (CSOs) to provide escort, ambulance, hospital security, equipment security services, and patrol assistance. Current staffing levels are considered adequate to provide police protection to the campus. The campus evaluates police protection needs on an ongoing basis and considers the need to augment UCPD, CSO, and Parking Patrol staffing levels as institutional priorities and new development warrant.

As previously mentioned, all new building projects, as well as existing buildings undergoing renovation, have fire alarm connections to the UCPD command center. This computerized system immediately identifies the location requiring police or fire protection services.

Los Angeles Police Department

The LAPD has the primary responsibility for providing police protection to the neighborhoods adjacent to the campus. While officers from the LAPD do not patrol the UCLA campus, the LAPD will provide assistance in homicide investigations, bomb disposals, and large demonstrations. The campus has mutual aid agreements with the Santa Monica Police Department and the California Highway Patrol, and is negotiating a memorandum of understanding (MOU) with the LAPD.

The campus is located within the LAPD's West Los Angeles Area and is served by a station located at 1663 Butler Avenue, approximately one mile from the southern part of campus. The West Los Angeles Area encompasses 64 square miles, bounded by the Los Angeles City boundary to the west; Mulholland Drive to the north; La Cienega Boulevard to the east; and the Santa Monica Freeway, Los Angeles City boundary, and Pacific Coast Highway to the south. The majority of the UCLA campus is within the smaller geographic area of Reporting District (RD) 818, which is bounded by Veteran Avenue and Gayley Avenue to the west, Sunset Boulevard to the north, Hilgard Avenue to the east, and Le Conte Avenue to the south.

Historic Crime Trends

According to the 2000 Campus Security Policy and Crime Statistics Report (prepared pursuant to the Jeanne Cleary Disclosure of Campus Security Policy and Campus Crime Statistics Act), there were 662 reported offenses on campus, which represents a slight decrease from the 679 incidents reported in

1999. The majority of these crimes were burglary/theft and liquor law violations. Campus crime statistics for 2001 pursuant to the Jeanne Cleary Disclosure Act are currently being compiled and are not yet available.

In the LAPD West Los Angeles Area, the predominant crimes in 2000 were aggravated assault, burglaries, vehicle theft, and other theft. According to past annual crime statistics, the crime rate in Westwood Village and on the campus is lower than the citywide average of 47.13 crimes per 1,000 population. Reported crime statistics provided by the LAPD indicate that RD 818 had a total of 7,526 reported crimes in 2000, representing 4.2 percent of the citywide total number of offenses.

Regulatory Framework

Federal and State

There are no federal or State police services regulations applicable to the 2002 LRDP.

Project Impacts and Mitigation

Analytic Method

Significant impacts on police services would be caused by an increase in campus population that resulted in inadequate staffing levels and/or the need for new or altered facilities. The LAPD and UCPD utilize a service ratio as its performance standard to determine adequacy of police protection services, rather than response times (personal communication, LAPD, 2001). To estimate the number of police officers required to serve the increased population, a ratio is applied to a population level. Estimated staffing to population ratios for 2001 at all University of California (UC) campuses range from 0.7 to 1.6 sworn officers per 1,000 population, and UCLA currently provides a ratio of approximately 1 sworn officer per 1,000 population. Based upon an anticipated average weekday campus population of 61,540 in 2010–11, and the existing UC staffing-to-population ratios, UCLA would need to provide between 43 and 98 sworn officers to serve the campus population in addition to CSOs and parking patrol officers.

Thresholds of Significance

The following threshold of significance is based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on police protection if it would

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

Effects Not Found to Be Significant

The Initial Study did not indicate any Effects Not Found to Be Significant related to police protection services; therefore, all potential impacts are discussed in this EIR.

Impacts and Mitigation

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

Impact LRDP 4.11-2 **Implementation of the 2002 LRDP could increase the demand for police services, but would not require new or physically altered facilities to maintain acceptable service ratios for police protection services. This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP would increase the average daytime campus population by approximately 4,873 persons during the regular session and 6,992 persons during the summer session,[23] including an associated increase in the on-campus student resident population of approximately 1,675 students. Based upon an anticipated average weekday campus population of 61,540 in 2010–11, the provision of between 43 and 98 sworn officers would continue to serve the campus population at the same level of service as currently provided. The campus currently provides 60 sworn officers, as well as CSOs and parking patrol officers, which is well within the University-wide range to serve the campus under full implementation of the 2002 LRDP. However, while current staffing levels are considered to provide adequate police protection services to campus in 2002 and may adequately serve the campus throughout the 2002 LRDP planning horizon (according to University-wide officer to population ratios), the campus monitors police staffing levels to ensure that adequate police protection continues to be provided on an ongoing basis as individual development projects are proposed and on an annual basis as part of the campus budgeting process. The provision of adequate police services is an important institutional priority in ensuring the quality of life and safety for the campus community.

[23] Based on change in campus population through 2010–11 from a baseline year 2001–02 for regular session and a baseline year of 2000 for the summer session.

While response times are not utilized by the LAPD or UCPD to measure performance, all campus buildings will continue to feature direct fire alarm connections in all new and renovated campus buildings to facilitate emergency response by providing immediate location information to the fire department, as required by 2002 LRDP PP 4.11-1. Re-assessing police staffing and equipment needs during implementation of the 2002 LRDP, as required by PP 4.11-2(a), would also ensure that police protection services and facilities continue to adequately serve the increased campus population and the increased level of development. In addition, the UCLA Police Department will continue its current practice of cooperating with the Los Angeles Police Department, Santa Monica Police Department, and the California Highway Patrol to help ensure the adequacy of police protection services for the campus. Furthermore, as required by PP 4.11-2(b), annual meetings would continue to occur between the Director of UCLA Housing and the UCPD to evaluate the adequacy of police protection service for University-owned housing. Through this mechanism, existing police and CSO service is evaluated, institutional priorities and budgetary requirements are assessed, and appropriate actions are identified and implemented to ensure the continued adequacy of police protection services for resident students.

As with the UCPD, the LAPD annually assesses staffing and equipment levels during its budgeting process and provides police officers, as needed, to accommodate expected increases in the City of Los Angeles population, which includes the campus. The City of Los Angeles General Plan Framework EIR concluded that police service levels would be adequate to serve the City's population through 2010; therefore, LAPD assistance to the campus is also expected to be adequate throughout the 2002 LRDP planning horizon.

While no new or altered facilities are anticipated to accommodate the increased demand for police services from implementation of the 2002 LRDP, if any facilities are required in the future, they will be subject to subsequent environmental review pursuant to CEQA. Because police service ratios are adequate and response times are addressed through campus building design, impacts associated with the provision of adequate police protection services are considered less than significant.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.11-2(a) *Police staffing levels and equipment needs shall continue to be assessed on an ongoing basis as individual development projects are proposed and on an annual basis during the campus budgeting process to ensure that the appropriate service levels will be maintained to protect an increased campus population and an increased level of development.*

PP 4.11-2(b) *Annual meetings shall continue to be attended by the Director of UCLA Housing and the UCPD to evaluate the adequacy of police protection service for University-owned housing, assess institutional priorities and budgetary requirements, and identify and implement appropriate actions to ensure the continued adequacy of police protection services for resident students.*

Following PP 4.11-2(a) and PP 4.11-2(b) would ensure that this impact remains less than significant by providing for an ongoing assessment of police staffing levels and equipment needs, even as police staffing levels are considered adequate throughout the 2002 planning horizon according to UC police service ratios. No mitigation is required.

4.11.3 Schools

Environmental Setting

The Los Angeles Unified School District (LAUSD) encompasses 704 square miles and serves a population of 4,636,724 with 677 schools and 270 centers. It employs 36,721 full-time teachers and has a total K–12 enrollment of 736,675, plus another 170,114 students enrolled in adult schools, occupational and skills centers, and children's centers. In 2000, the LAUSD was reorganized to comprise eleven local districts with its own local district superintendent, along with a central office providing tactical support, services, and compliance monitoring functions for the local districts. Its elected Board of Education oversees a $10 billion operating budget and is responsible for setting policy for accommodating future enrollment growth and financing the development of new school facilities. The Board has approved a comprehensive plan for additions to existing schools, construction of new schools, and other capacity enhancement measures to accommodate future enrollment growth. Very little new capacity is planned for the Westside schools where UCLA employee households are currently concentrated, because most schools are projected to have sufficient seating capacity to accommodate enrollment growth.[24]

The UCLA campus is located within Local District D of the Los Angeles Unified School District, which includes a total of 93 elementary, junior high, and high schools, as well as other educational facilities. The Local District is bounded by Sunset Boulevard to the north, 54th Street to the south, Western Avenue to the east, and the Pacific Ocean to the west, except for areas included within the separate Culver City Unified School District, Beverly Hills Unified School District, or Santa Monica/Malibu Unified School District.

[24] Building additions for additional classrooms are planned for Hamilton (459 seats) and Venice (216 seats) High Schools, Palms Middle School (108 seats), and Kenter Canyon Elementary School (184 seats). No new schools are planned for the Westside.

Any demand for K–12 public education facilities that is generated by the UCLA campus population is associated primarily with married student households, faculty households and staff households. Data on the number and residential location of married students is not available, but these data are available for faculty and staff. As shown in Table 4.11-1 (Distribution of Employee Households by School District), over two-thirds (69.7 percent) of existing UCLA employees reside within the boundaries of LAUSD, and the largest concentration of these households is on the Westside (34.7 percent). About one-quarter (22.7 percent) resides within the boundaries of other Los Angeles County School Districts, and the remainder (7.5 percent) resides within school districts located outside Los Angeles County. Applying LAUSD's average student generation rates per household, this implies that existing UCLA campus households generate demand for about 7,000 students (about one percent of LAUSD's current enrollment), as also shown in Table 4.11-1.

Table 4.11-1 Distribution of Employee Households by School District

	Existing UCLA Employee Households		*Students*			
	Number	*Percent*	*Elementary*[1]	*Middle*[2]	*High*[3]	*Total*
Los Angeles County/LAUSD						
West L.A.[4]	8,986	34.69	1,671	872	970	3,514
South Central	2,216	8.55	412	215	239	866
West Valley	1,983	7.66	369	192	214	775
East Valley	1,920	7.41	357	186	207	750
Downtown	1,625	6.27	302	158	176	636
Northeast LA	675	2.61	126	65	73	264
Southeast LA	412	1.59	77	40	44	161
East LA	239	0.92	44	23	26	93
Subtotal	*18,056*	*69.70*	*3,359*	*1,751*	*1,949*	*7,059*
Other LA County/Other Districts						
Santa Monica/Malibu/Topanga	1,553	6.00				
South Bay	1,456	5.62				
Other San Gabriel Valley	668	2.58				
Santa Clarita Valley	611	2.36				
Burbank/Glendale	441	1.70				
Pasadena	405	1.56				
Antelope Valley	305	1.18				
Beverly Hills	254	0.98				
Pomona Valley	128	0.49				
Other LA County	77	0.30				
Subtotal	*5,898*	*22.77*				

Table 4.11-1 Distribution of Employee Households by School District

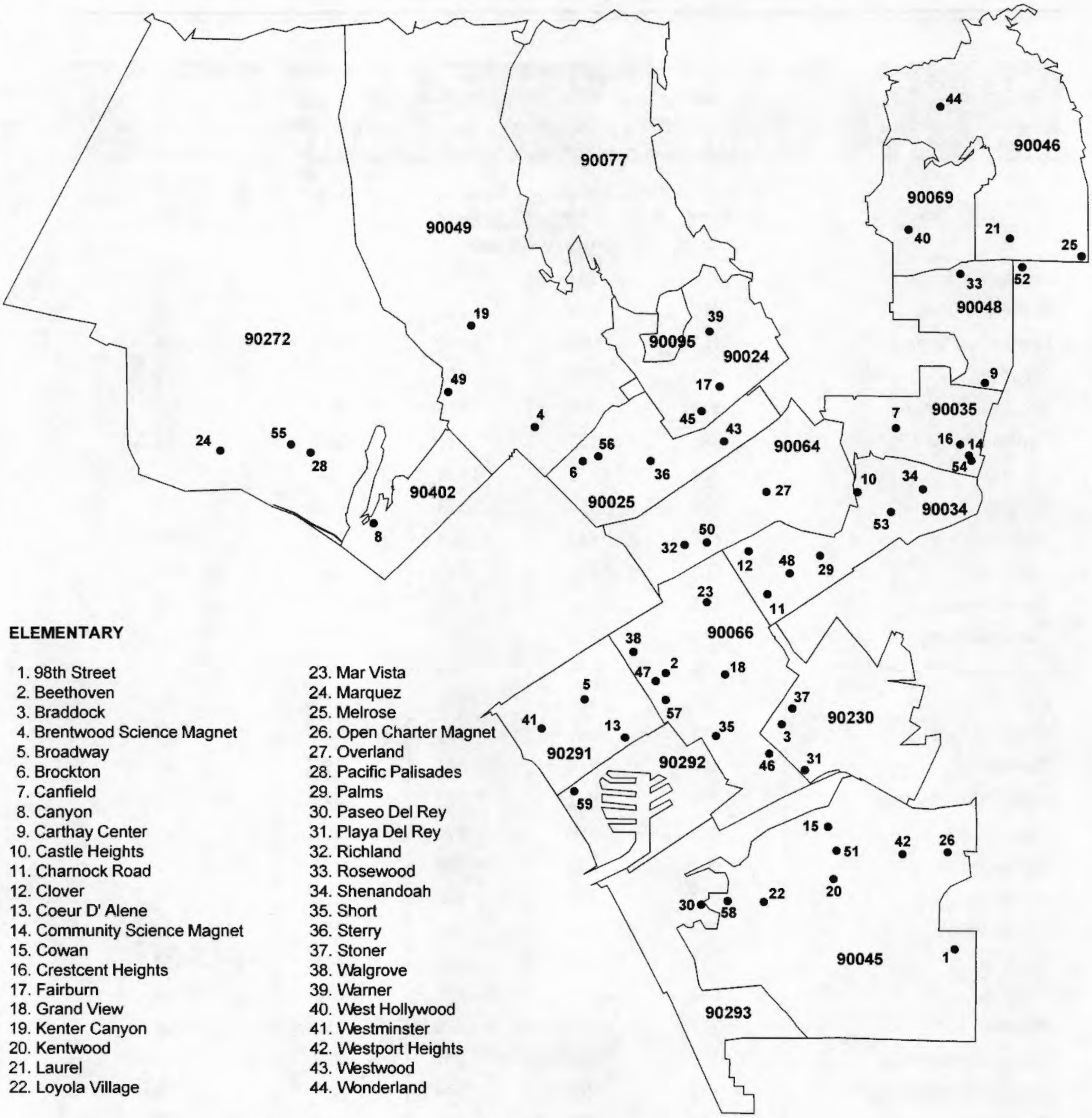
	Existing UCLA Employee Households		Students			
	Number	Percent	Elementary[1]	Middle[2]	High[3]	Total
Other Districts						
Ventura County	560	2.16				
Orange County	518	2.00				
Other CA Counties	323	1.25				
San Bernardino County	280	1.08				
Out-of-State	179	0.69				
Riverside County	90	0.35				
Subtotal	*1,950*	*7.53*				
Total	***25,904***	***100.00***				

1. Based on a generation rate of 0.186 students per household
2. Based on a generation rate of 0.097 students per household
3. Based on a generation rate of 0.108 students per household
4. Defined in terms of 28 zip codes that include the communities of Pacific Palisades, Brentwood, Venice, Palms, Mar Vista, Westchester, Marina Del Rey, Playa Del Rey, Rancho Park, Cheviot Hills, Sawtelle, Westwood, West Los Angeles, Bel Air, and West Hollywood.

Source: UCLA & HRA, Inc.

Based upon the current residential patterns of campus faculty and staff, the schools that would accept the largest relative proportion of the K–12 public education needs of the UCLA campus population are located in the University, Hamilton, Fairfax, Venice, Pacific Palisades, and Westchester Senior High School attendance areas of the Westside.

The LAUSD monitors student enrollment figures on an annual basis and accommodates changes in enrollment using a wide range of strategies including adjustments to average class sizes, attendance boundary changes, grade reconfigurations, use of portable classrooms, closing and re-opening existing schools, use of alternative school calendars (e.g., year-round, multi-track), busing, additions to existing schools, and construction of new schools. The current and projected enrollment and classroom capacity of LAUSD schools in the vicinity of the highest concentration of campus employee households is shown in Table 4.11-2 (Current and Projected Enrollment and Classroom Capacity of Los Angeles Unified School District Schools Serving the Highest Concentrations of Employee Households). The locations of these schools are shown in Figure 4.11-1 (Los Angeles Unified School District Schools Near Highest Concentrations of UCLA Employee Households).



ELEMENTARY

1. 98th Street
2. Beethoven
3. Braddock
4. Brentwood Science Magnet
5. Broadway
6. Brockton
7. Canfield
8. Canyon
9. Carthay Center
10. Castle Heights
11. Charnock Road
12. Clover
13. Coeur D' Alene
14. Community Science Magnet
15. Cowan
16. Crestcent Heights
17. Fairburn
18. Grand View
19. Kenter Canyon
20. Kentwood
21. Laurel
22. Loyola Village
23. Mar Vista
24. Marquez
25. Melrose
26. Open Charter Magnet
27. Overland
28. Pacific Palisades
29. Palms
30. Paseo Del Rey
31. Playa Del Rey
32. Richland
33. Rosewood
34. Shenandoah
35. Short
36. Sterry
37. Stoner
38. Walgrove
39. Warner
40. West Hollywood
41. Westminster
42. Westport Heights
43. Westwood
44. Wonderland

MIDDLE SCHOOLS

45. Emerson
46. Marina Del Rey
47. Mark Twain
48. Palms
49. Revere
50. Webster
51. Wright

HIGH SCHOOLS

52. Fairfax
53. Hamilton
54. LA CES Magnet
55. Palisades
56. University
57. Venice
58. Westchester
59. Westside Leadership Magnet

ZIP CODES

90024	90069
90025	90077
90034	90095
90035	90230
90045	90272
90046	90291
90248	90292
90049	90293
90064	90402
90066	

Not to Scale

SOURCE: EIP Associates

10328-07

EIP ASSOCIATES

FIGURE **4.11-1**

Los Angeles Unified School District Schools Near Highest Concentrations of UCLA Employee Households

Table 4.11-2 Current and Projected Enrollment and Classroom Capacity of Los Angeles Unified School District Schools Serving the Highest Concentrations of Employee Households[1]

School	Current Actual Enrollment[2]	Current Resident Enrollment[3]	Operating Capacity[4]	Projected 2006–07 Resident Enrollment	Remaining Capacity or (Shortfall) for Projected Enrollment[5]
Elementary Schools					
Beethoven Street	377	383	429	375	54
Braddock Drive	617	674	725	609	116
Brentwood Science[6]	1,169	N/A	1,190	N/A	N/A
Broadway	452	368	605	397	208
Brockton Avenue	314	406	396	397	(1)
Canfield Avenue	365	239	391	240	151
Canyon	336	333	404	350	54
Carthay Center	439	459	524	430	94
Castle Heights	644	564	704	501	203
Charnock	502	578	682	534	148
Clover Avenue	525	472	594	507	87
Coeur D'Alene	412	310	461	348	113
Community Magnet[6]	368	N/A	384	N/A	N/A
Cowan	462	604	581	625	(44)
Crescent Heights	197	505	290	465	(175)
Fairburn	409	259	444	299	145
Grand View Boulevard	779	852	877	677	200
Kenter Canyon	435	458	494	519	(25)
Kentwood	403	290	518	233	285
Laurel	424	282	495	250	245
Loyola Village	359	282	428	256	172
Mar Vista	632	361	767	433	334
Marquez	663	646	775	610	165
Melrose	263	218	356	252	104
Ninety-Eighth Street	316	335	389	280	109
Open Charter Magnet[6]	364	N/A	384	N/A	N/A
Overland	545	329	603	294	309
Pacific Palisades	393	368	511	332	179
Palms	537	587	592	528	64
Paseo Del Rey Fundamental[6]	551	N/A	515	N/A	N/A
Playa Del Rey	235	206	328	223	105
Richland Avenue	342	305	507	312	195
Rosewood	556	198	625	186	439
Shenandoah Street	832	988	989	1,016	(27)
Short	409	391	632	438	194

Table 4.11-2 Current and Projected Enrollment and Classroom Capacity of Los Angeles Unified School District Schools Serving the Highest Concentrations of Employee Households[1]

School	Current Actual Enrollment[2]	Current Resident Enrollment[3]	Operating Capacity[4]	Projected 2006–07 Resident Enrollment	Remaining Capacity or (Shortfall) for Projected Enrollment[5]
Sterry, Nora	383	404	461	412	49
Stoner	619	681	716	591	125
Walgrove	456	297	565	313	252
Warner	686	661	746	715	31
West Hollywood	272	68	344	97	247
Westminster	429	470	563	482	81
Westport Heights	528	779	749	838	(89)
Westwood	732	749	831	720	111
Wonderland	193	160	232	142	90
Elementary Schools Totals	***20,924***	***17,519***	***24,796***	***17,226***	***5,097***
Middle Schools					
Emerson	1,444	622	1,407	687	720
Marina Del Rey	1,134	1,047	1,582	1,109	473
Mark Twain	1,375	1,209	1,498	1,203	295
Palms	1,420	1,178	1,826	1,098	728
Revere	1,597	1,211	2,386	1,231	1,155
Webster	1,382	1,537	1,597	1,464	133
Wright	1,256	1,356	1,557	1,367	190
Junior High Schools Totals	***9,608***	***8,160***	***11,853***	***8,159***	***3,694***
High Schools					
Fairfax	2,337	2,440	2,816	2,643	173
Hamilton	1,652	2,388	2,716	2,748	(32)
LACES Magnet[6]	1,541	N/A	1,550	N/A	N/A
Palisades	1,982	1,105	2,533	1,272	1,261
University	2,423	1,315	2,495	1,499	996
Venice	2,467	2,292	3,033	2,486	547
Westchester	1,943	1,657	2,985	2,103	882
Westside Leadership Magnet[6]	430	N/A	463	N/A	N/A
High Schools Totals	***14,775***	***11,197***	***18,591***	***12,751***	***3,827***

1. Schools listed are those most likely to serve UCLA employee households based on current residential patterns.
2. October 2001 actual enrollment, including students attending from other areas of the District.
3. Students generated by the attendance area around each school, whether or not these students attend that school.
4. 2-semester (traditional calendar) seating capacity, as of October 2001. Does not include additional classrooms that may be added to some schools as part of the District's Facilities Master Plan. Enrollment forecasting is limited to the next five school years.
5. Operating capacity compared with projected 2006–07 resident enrollment. Actual surplus or shortfall will depend on future District decisions about the most efficient use of facilities District wide, as well as the actual number of students that enroll in each school.
6. These are specialized schools not designed to serve a neighborhood. Students from all over the District attend these schools and, therefore, no resident enrollment counts or projections are made for them.

UCLA operates the Seeds University Elementary School located on the main campus on Sunset Boulevard. The school is a teaching laboratory for UCLA professional training in education and serves approximately 425 elementary school-age children of campus faculty and staff.

Regulatory Framework

Federal and State

There are no federal or State regulations pertaining to schools applicable to the 2002 LRDP.

Project Impacts and Mitigation

Analytic Method

Impacts on schools are determined by analyzing the projected increase in the demand for schools as a result of the proposed project and comparing the projected increase with the remaining capacity to determine whether new or altered facilities would be required. While the 2002 LRDP does not include any new housing for married students, faculty, or staff that would create a direct demand for public school facilities, the increase in campus population includes additional faculty, staff, and students with children that could indirectly create a demand for school facilities during the regular session. (It is not anticipated that an increase in the summer campus population would result in an increased demand for school facilities.) If these households distribute themselves similarly to existing faculty and staff, most will settle within the boundaries of the Los Angeles Unified School District, particularly on the Westside. On average, LAUSD estimates that each household produces the need to accommodate 0.186 elementary students, 0.097 middle school students, and 0.108 high school students. Seating capacity standards and decisions about the choice of methods to maintain enrollment levels at individual schools are controlled by LAUSD and change from time to time in light of financial and other circumstances. The District's goal is to eventually reduce and/or eliminate the need for year-round, multi-track school calendars, and to make it possible for students to attend their neighborhood schools.

Thresholds of Significance

The following threshold of significance is based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on schools if it would

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

Effects Not Found to Be Significant

The Initial Study did not indicate any Effects Not Found to Be Significant; therefore, all potential school impacts are discussed in this EIR.

Impacts and Mitigation

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

Impact LRDP 4.11-3 **Implementation of the 2002 LRDP would not require new or physically altered facilities to accommodate additional students in LAUSD schools. This is considered a *less-than-significant* impact.**

Assuming that the additional academic and staff employees associated with the 2002 LRDP represent separate households and their residences are distributed in the same manner as existing employees, most households will be concentrated within the boundaries of LAUSD, and many of these will be on the Westside of Los Angeles. Applying LAUSD's average student generation rates per household identifies an additional estimated demand for LAUSD to accommodate an additional 518 students, as shown in Table 4.11-3 (Distribution of 2002 LRDP Employee Households within LAUSD). This is roughly equivalent to 17 classrooms (at 30 students per classroom) distributed across the entire District.

The highest concentration of students (257) associated with full implementation of the 2002 LRDP would be located in the 56 schools on the Westside, including 122 elementary students (equivalent to 4.1 classrooms) distributed across 41 elementary schools, 64 students (equivalent to 2.1 classrooms) across seven middle schools, and 71 students (equivalent to 2.4 classrooms) across eight high schools. As shown previously in Table 4.11-2 (Current and Projected Enrollment and Classroom Capacity of Los Angeles Unified School District Schools in the UCLA Vicinity), LAUSD projects that the operating capacity of these 56 schools will far exceed the enrollment. It is recognized that other areas of the City of Los Angeles served by the LAUSD currently are experiencing overcrowded conditions at various locations, particularly within the South Central, Northeast, East Valley and Downtown areas of Los Angeles. While the number of 2002 LRDP-related employee households residing in each of these areas is relatively small when compared to West Los Angeles (see Table 4.11-3, Distribution of 2002 LRDP

Table 4.11-3 Distribution of 2002 LRDP Employee Households within LAUSD

	Projected UCLA Employee Households		*Students*			
	Number	**Percent of Total**	**Elementary[1]**	**Middle[2]**	**High[3]**	**Total**
Los Angeles County/LAUSD						
Westside	657	34.69	122	64	71	257
South Central	162	8.55	30	16	18	64
West Valley	145	7.66	27	14	16	57
East Valley	140	7.41	26	14	15	55
Downtown	119	6.27	22	12	13	47
Northeast LA	49	2.61	9	5	5	19
Southeast LA	30	1.59	6	3	3	12
East LA	17	0.92	3	2	2	7
Total	***1,321***	***69.70***	***246***	***128***	***143***	***516***

1. Based on a generation rate of 0.186 students per household
2. Based on a generation rate of 0.097 students per household
3. Based on a generation rate of 0.108 students per household

Source: UCLA and HRA, Inc.

Employee Households within LAUSD), the impacts of 2002 LRDP employee household growth in these areas could be greater due to current overcrowded conditions. However, according to the LAUSD's adopted Strategic Execution Plan, dated December 18, 2001, the LAUSD will add an additional 76,831 seats in 158 separate capital projects (including 78 new schools and additional space at 60 additional existing schools) by 2007. According to the Strategic Execution Plan, over $3.1 billion from Proposition BB, Proposition 1A, and other state funds and bonds will be allocated to fund this construction program during this same period. The vast majority of this new construction to provide additional capacity will be in those areas of the LAUSD that are currently operating under overcrowded conditions.

As shown in Table 4.11-1 (Distribution of Employee Households by School District), the percentage of UCLA employee households residing in any single school district other than the LAUSD is very low, and thus the impact of the 2002 LRDP on other districts will be less than the impact on the LAUSD.

It should also be noted that the foregoing estimates assume that the 2002 LRDP employee households are all net new households, when in fact, the staff employees, which constitute most of the 2002 LRDP employment growth, are probably already located in the region. Moreover, the foregoing assumes that all of these households have school-age children and that all of these school-age children (elementary, middle school, and high school students) will attend public schools, when it can be anticipated that some percentage of these students will attend private schools.

As indicated above, the 2002 LRDP will result in a relatively small increase in the number of students throughout the LAUSD as a whole, with the largest area of student growth concentrated in West Los

Angeles, where school capacity is adequate to serve this increase in population. The 2002 LRDP will direct a much smaller percentage of students to each of the areas of the LAUSD that are currently above enrollment capacity, and the LAUSD will direct extensive resources toward reducing over-enrollment in these areas during the period of the 2002 LRDP. Therefore, the incremental increase in demand associated with additional faculty and staff as a result of the 2002 LRDP could be accommodated by the LAUSD, and a less-than-significant impact would occur. No mitigation is required.

4.11.4 Cumulative Impacts

The geographic context for the analysis of cumulative public services impacts is the City of Los Angeles and the LAUSD boundaries (which coincide), including all cumulative growth therein, as represented by full implementation of the City of Los Angeles General Plan Framework and development of the related projects list provided by Table 4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to Environmental Analysis).

As additional development occurs in the City of Los Angeles, there may be an overall increase in the demand for law enforcement and fire protection services, including personnel, equipment, and/or facilities. However, increases in demand are routinely assessed by these agencies as part of an annual monitoring and budgeting process, and law enforcement and fire protection services in the City are anticipated to be adequate according to the General Plan through 2010. The cumulative impact, therefore on police and fire services in the City would be less than significant. The 2002 LRDP's contribution to this cumulative impact is also less than significant since the campus can be served within the established response times and distances for the LAFD, while providing adequate fire flows. Because implementation of the 2002 LRDP can also be accommodated within the existing UCPD police protection service capabilities, as well as the existing and projected LAFD and LAPD service capabilities, and existing campus programs, practices, and procedures would continue to ensure the adequate provision of established response times and/or service ratios, the contribution of the 2002 LRDP to cumulative impacts on fire and police protection would be less than significant. This is considered to be a *less-than-significant* impact.

Increased residential and nonresidential development throughout the City of Los Angeles will generate additional demand for public school classroom seating capacity in LAUSD schools. While there is a projected future surplus of classroom capacity in the Westside LAUSD schools (as reflected by Table 4.11-2) that are most affected by the 2002 LRDP, the LAUSD has experienced, and may continue to experience, a shortfall of classroom capacity in other geographic areas throughout the District. The degree to which this demand will be satisfied is dependent upon future enrollment trends. However, as indicated above, under the LAUSD's adopted Strategic Execution Plan, the LAUSD will add an additional 76,831 seats in 158 separate capital programs by 2007, the vast majority of which will be in those areas of the LAUSD that are currently operating under overcrowded conditions. Finally, all new private sector development will be required to pay statutory impact fees under Senate Bill 50 to LAUSD to help fund construction of additional classroom capacity, and under current law, payment of these fees is deemed to constitute full mitigation under CEQA. For these reasons, and assuming that cumulative demand for school capacity will be met as planned by the LAUSD, cumulative impacts throughout the LAUSD would be less than significant. However, even in the event that significant cumulative impacts do occur as a result of future area-wide population growth, the contribution of the 2002 LRDP would remain less than significant. As discussed above, the geographical area within LAUSD that would be most affected by population growth (and consequent demand for school capacity) is West Los Angeles, which is operating with remaining student capacity. Moreover, each of the other areas within LAUSD that are currently experiencing overcrowded conditions would not only receive a very small number of new students as a result of the 2002 LRDP, that number is overly conservative, and these areas are also the focus of LAUSD efforts to reduce overcrowding. As a result, the contribution of the 2002 LRDP to cumulative impacts on school facility capacity is not cumulatively considerable. This is considered to be a *less-than-significant* impact.

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4.12 RECREATION

This section describes the current recreational uses on the UCLA campus and in surrounding areas and describes ways in which implementation of the 2002 LRDP could lead to increased demand for recreational facilities, physical deterioration of recreational facilities, or the creation or expansion of recreational facilities, the construction of which could have a physical adverse effect on the environment.

Data used to prepare this section was taken from various sources, including previous environmental documentation prepared for the UCLA campus and other campus data sources. Full bibliographic entries for all reference materials are provided in Section 4.12.5 (References) of this section.

No comment letters related to recreational facilities were received in response to the Notice of Preparation circulated for the project.

4.12.1 Environmental Setting

The UCLA campus provides extensive access to a broad range of recreational facilities, activities, and services that reflect the varied recreational and leisure needs of students, faculty, and staff. Recreational facilities include several existing outdoor playing fields (formal spectator fields and informal fields), running tracks (including an on-campus track and an informal running path around the campus perimeter), courts (i.e., tennis, basketball), swimming pools, and lawn areas. Indoor facilities for multi-purpose sports and fitness training, gymnastics, dance, and other cultural activities are also provided. With UCLA's relatively limited land area, the campus places a high value on the preservation and development of on-campus recreational areas, as well as the enhancement of existing recreational areas, to increase utilization and to encourage the use of other appropriate campus spaces not traditionally used for recreational activities. Table 4.12-1 (Recreation Space and Multi-Use Facilities [November 2002]) lists recreational facilities on the UCLA campus as of November 2001. Approximately 80 percent of students and 25 percent of faculty and staff utilize UCLA's indoor and outdoor recreational facilities (personal communication, Michael DeLuca, Director UCLA Cultural and Recreational Affairs, September, 2002).

Table 4.12-1 Recreation Space and Multi-Use Facilities (November 2001)

Facility/Space	Space Allocation[1]	Programs
John Wooden Center	161,150 square feet (sf)	Three large gymnasia for basketball, volleyball, badminton, and gymnastics; a co-ed weight training room; four fitness, dance, fencing, and martial arts studios; nine handball/racquetball courts; two squash courts; a rock climbing wall; a games lounge with tables, chairs, and large-screen TV; and new men's and women's locker and shower facilities with saunas.
Pauley Pavilion	28,000 sf (floor surface)	Can accommodate three regulation basketball courts or six regulation volleyball courts. Used by Intramural Teams.
Men's Gym (closed for seismic renovation until Fall '03)	26,900 sf	One gymnasium for basketball, volleyball, and badminton; 25-meter swimming pool; locker rooms for those using the pool.
Los Angeles Tennis Center	3.6 acres	Eight lighted tennis courts and 6,262 square feet of clubhouse.
Sunset Canyon Recreation Center	9.0 acres	One 50-meter swimming pool with diving facilities; one 25-yard family swimming pool; picnic and barbecue areas; an open lawn area for free play; a sand volleyball court; an outdoor amphitheater; meeting rooms and lounges; ten lighted tennis courts, including two that can be reconfigured for multi-use (e.g., for use as six basketball courts); a challenge (ropes) course.
Sycamore Canyon Recreation Center	0.65 acre and tennis courts	A lawn area and golf green; six (nonlighted) tennis courts.
Glorya Kaufman Hall (closed for seismic renovation until Fall '03)	1,689 sf	One 25-yard swimming pool; locker and shower facilities.
FitCenter South	10,000 sf	A co-ed weight training and cardiovascular equipment room; men's and women's locker facilities (in the Rehabilitation Building).
Drake Track & Field Stadium/Marshall Field	2.5 acres	400-meter nine-lane running track; grass field space.
Intramural Field	9.0 acres	Grass field space for intramural sports, including football, soccer, golf, baseball, and softball.
North Athletic Field	3.0 acres	Grass field space for intramural sports (see above listing).
Rieber Hall	0.125 acres	Three outdoor basketball courts.
Spaulding Field	5.0 acres	Grass field space, primarily for football
Easton Stadium	3.0 acres	Women's softball field
Jackie Robinson Baseball Stadium	8.0 acres	Men's baseball field, leased from the Veterans Administration, 5.0 acres of grass field, 3.0 acres of parking
Proposed Recreational Space		
Southwest Campus Graduate Student Housing Commons Building	7,800 sf (approved)	Co-ed fitness/recreation center for use by student residents.
Northwest Campus Recreation Zone	2 to 3 acres (proposed)	15,000-square-foot fitness/recreation center, outdoor volleyball and basketball courts, and 25-meter long leisure pool for use by on-campus student residents.

1. All figures are approximate

Source: UCLA Cultural Recreational Affairs, February 2002

While it is likely that most of the students who live on campus use campus recreational facilities, students living off campus, as well as faculty and staff, could also use facilities provided in off-campus locations. The City of Los Angeles Department of Recreation and Parks manage three public parks and recreational facilities within approximately one mile of UCLA: Barrington Recreation Center (17 acres), Holmby Park (8.5 acres), and Westwood Park (26.7 acres). Other large parks and recreational facilities that may serve UCLA students and staff include Griffith Park, the Hansen Dam Recreation Area, the Sepulveda Basin Recreation Area, the Santa Monica Mountains Recreation Area, numerous bicycle and hiking trails throughout the city, and beaches. The City currently provides parkland of one acre of parkland per 1,000 population, but has a goal of providing four acres per 1,000 population.

4.12.2 Regulatory Framework

Federal and State

There are no federal or State recreational facilities regulations applicable to the 2002 LRDP.

4.12.3 Project Impacts and Mitigation

Analytic Method

Neither the City of Los Angeles nor the UCLA campus has established minimum standards for the provision of parkland or recreational facilities, reflected in acres per population; however, existing data for the Westwood Community Plan and the City of Los Angeles (reflected in acres of parkland per 1,000 residents) are used to compare with on-campus data (also as reflected in acres of parkland per 1,000 population).

Another method of determining the amount of parkland or recreation facilities provided by UCLA is to utilize the Quimby Act (Government Code Section 66477(a)) calculation methodology. Although not applicable to the University of California, the Quimby Act allows a legislative body of a city or county to require the dedication of land or impose a requirement for payment of in-lieu fees, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative map or parcel map for residential development. When calculating the amount of parkland, the acreage contribution by development, as well as improvements or in-lieu fees, would be collectively considered to compare to any established standards.

Impacts on recreational facilities are considered significant if an increase in population would result in either the deterioration of existing recreational facilities or increased demand that would require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on recreation services and facilities if it would result in any of the following:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment

Effects Not Found to Be Significant

The Initial Study did not indicate any Effects Not Found to Be Significant; therefore, all potential impacts are discussed in this EIR.

Impacts and Mitigation

Threshold	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Impact LRDP 4.12-1 **Implementation of the 2002 LRDP would increase the campus population but would not result in the increased use of parks and recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. This is considered a *less-than-significant* impact.**

The projected increase in the regular session average weekday campus population of 4,873 persons through 2010–11 (including students, faculty, staff, visitors, and construction personnel) could result in a related increase in the demand for parks or other recreational facilities both on and off campus. Currently, the West Los Angeles Community Plan Area contains 54.7 acres of parkland, and the Westwood Community Plan Area contains 37.5 acres of parkland. The three public parks near UCLA total 52.2 acres, or 0.8 acre of parkland per 1,000 residents in the Westwood Community Plan Area. This is slightly less than the citywide ratio of 1 acre per 1,000 persons. The on-campus recreational areas described in Table 4.12-1 total approximately 52.2 improved acres. The projected average weekday population during the regular session (the period of highest campus population) for 2010–11 is 61,541 persons, which yields a parkland-to-population ratio of 0.85 acre per 1,000 campus population. This ratio falls within the range of parkland provided by the City of Los Angeles of approximately 1 acre per 1,000 persons and the 0.8 acre per 1,000 persons contained within the Westwood Community Plan Area.

In addition, the campus has made significant capital improvements to recreational facilities on campus, which are described in Table 4.12-2 (Campus Recreational Facilities Capital Improvements), including Pauley Pavilion, the Wooden Center, Sunset Canyon Recreation Center, the Los Angeles Tennis Center, as well as numerous pools and tennis courts.

Table 4.12-2 Campus Recreational Facilities Capital Improvements

Facility	*Year Built*	*Capitalized Construction and Improvement Cost*	*Inflation Factor*[1]	*Capitalized Construction and Improvement Cost in 2002 $*
Acosta Training Center	1965–82	$3,316,899	1.63	$5,416,315
Canyon Recreational Center	1965	$2,762,624	5.82	$16,073,449
Drake Track & Field Stadium	1969	$1,943,914	4.62	$8,976,454
Easton Field Clubhouse	1997	$247,775	1.08	$268,693
Los Angeles Tennis Center	1984	$7,710,698	1.51	$11,637,826
Men's Gymnasium	1932	$1,196,291	27.85	$33,313,508
Pauley Pavilion	1965	$5,174,437	5.82	$30,105,815
Wooden Recreational Center	1983	$17,461,193	1.53	$26,719,141
Total Capital Improvements		***$39,813,831***		***$132,511,201***

1. Project year annual value to August 2002 value. For projects spread over multiple years, the inflation adjustment was calculated from the final year of the construction period.

Source: *Engineering News Record*, Building Cost Index, (http://enr.construction.com/costbci.asp)

Although not applicable to the University of California, if the Quimby Act (Government Code Section 66477(a)) calculation methodology was used to determine the amount of parkland or recreation provided at UCLA, both the acreage of recreational facilities and the in-lieu fees paid for improvements to these recreational facilities would be considered. The major campus recreational capital improvements shown in Table 4.12-2 total approximately $132.5 million, as adjusted for inflation in 2002 dollars. Commercial land values in the Westwood area typically range from $5.2 million to $6.5 million per acre, for an average of $5.87 million per acre (personal communication, Bruce Kaufer, Grubb & Ellis Commercial Real Estate, 2002). UCLA has, therefore, made capital improvements equivalent to 22.6 acres of parkland or recreational facilities. Thus, a total of 74.7 acres of recreational facilities, or the equivalent thereof, have been or will be provided by the campus using the Quimby Act calculation methodology.

As noted above, the projected average weekday population during the regular session (the period of highest campus population) for 2010–11 is 61,541 persons. Utilizing this population figure and 74.6 acres of existing and/or improved recreational facilities yields a parkland-to-population ratio of 1.21 acres per 1,000 campus population with full development under the 2002 LRDP. This ratio exceeds the range of parkland provided by the City of Los Angeles of approximately 1 acre per 1,000 persons and the 0.8 acres per 1,000 persons contained within the Westwood Community Plan Area. Thus, the increased campus population can be adequately served by existing on-campus recreational facilities. In addition, an open lawn area and multi-purpose recreation facility are planned for the Southwest zone in conjunction with Phase 2 of the Southwest Campus Housing and Parking project, which is anticipated to begin construction after 2005. The 2002 LRDP also includes a project-specific proposal to provide additional on-campus recreational facilities on a 2- to 3-acre site, including a multi-purpose recreational/fitness facility, basketball and volleyball courts, a 25-meter leisure pool, and a leisure/recreation grass area. The Northwest Housing Infill Project (NHIP) is further discussed and evaluated in Volume 2 of this document. Therefore, the increased demand for recreational facilities as a result of an increased campus population would be less than significant, and new recreational facilities included as part of the proposed NHIP would further reduce this less-than-significant impact.

While a high percentage of students, faculty, and staff would take advantage of the existing and new recreational facilities and programs at UCLA (refer to Table 4.12-1 [Recreation Space and Multi-Use Facilities, November 2001]), other off-campus community parks and large recreation areas in a broader geographical area may also serve UCLA students and staff, including, but not limited to, the trails provided throughout the Santa Monica Mountains Recreation Area, the various beaches in southern California, and Griffith Park.

The total summer campus population would remain smaller than the regular session, even with the anticipated average campus population increase of 6,992 persons (Table 4.10-8 [Existing and Projected On-Campus Population (Summer Session)]) during the summer session. Since summer session students, faculty, and staff would also use existing recreational facilities and programs, which are adequate to accommodate the larger campus population during the regular session, the effects of the summer session population increase are also expected to be adequately served by on-campus and/or off-campus recreational facilities.

Impacts associated with the physical deterioration of existing parks or other recreational facilities are considered less than significant due to the availability of considerable on- and off-campus recreational facilities, which ensures that any increase in demand is absorbed by multiple facilities and exceeds standard ratios for the provision of parkland. In addition, UCLA actively continues to maintain and enhance campus recreational facilities.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.12-1(a)	*The campus shall continue to provide, operate, and maintain recreational facilities for students, faculty, and staff on campus.*
PP 4.12-1(b)	*The campus shall continue to integrate landscaped open space (including plazas, courts, gardens, walkways, and recreational areas) with development to encourage use through placement and design.*

Following PP 4.12-1(a) and PP 4.12-(b) would ensure that the impact of projected campus population growth on the demand for recreational facilities remains less than significant through the continued provision of on-campus recreational facilities. No mitigation is required.

Threshold	Would the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Impact LRDP 4.12-2 **The 2002 LRDP would include recreational facilities as part of the proposed Northwest Housing Infill Project, the construction of which would not have an adverse physical effect on the environment. This is considered a *less-than-significant* impact.**

The construction impacts anticipated to result from implementation of the 2002 LRDP are comprehensively analyzed in Sections 4.2 (Air Quality), 4.9 (Noise and Vibration), and 4.13 (Transportation/Traffic) of this EIR. While significant, unavoidable construction impacts would occur in each of these issue areas as a result of construction under the 2002 LRDP, the only specific recreational facility proposed as part of the LRDP (specifically, as part of the NHIP), by itself, is not considered likely to result in significant construction-related impacts.

A specific 2002 LRDP recreation project is the proposed recreation component of the NHIP. The proposed facility consists of a 15,000 gsf multipurpose center, leisure pool, outdoor basketball courts and volleyball courts, and a lawn area. The facility would be constructed on a paved site currently occupied by Lot 15 and by a Facilities Management green waste yard that contains Ornamental Horticulture Buildings J and M (which are steel-skeleton structures with metal walls and roof panels). Construction of this facility would not require substantial demolition—only removal of existing asphalt surfaces—nor would it require significant excavation, as the leisure pool would be shallow wading-depth and not intended for use as a lap pool. Consequently, following 2002 LRDP EIR PP 4.2-2(a), which would require implementation of fugitive dust control measures according to SCAQMD Rule 403, would further reduce any air quality impact associated with grading activities.

Construction activities would be limited, and construction traffic would, therefore, also be limited and considered less than significant. This would limit emissions from construction equipment to less-than-significant levels. Implementation of 2002 LRDP EIR PP 4.2-2(b) and 2002 LRDP EIR PP 4.2-2(c) would require maintenance and tuning of construction engines, as well as the use of existing electricity infrastructure on the campus, rather than generators powered by internal combustion engines. Following these programs, practices, and procedures would ensure that construction–related impacts to air quality would be less than significant, and no mitigation is required. This less-than-significant impact would be further reduced with implementation of 2002 LRDP EIR MM 4.2-2(a) and MM 4.2-2(b), which would require that all construction equipment not in use for more than five minutes be turned off and would also require, to the extent feasible, the use of alternative fuel construction equipment.

The limited amount and type of construction activity, the minimal demolition, and the low amount of construction traffic would ensure that construction-related noise effects would also be less than significant with respect to on and off campus uses. In addition, following 2002 LRDP EIR PP 4.9-8(a) to PP 4.9-8(d), and PP 4.9-9 would limit, to the extent feasible, hours of construction to nonsensitive time periods, require muffling of construction equipment, placement of construction staging areas away from sensitive receptors, and coordination with other campus uses and the academic calendar regarding construction activities, as well as coordination with off-campus uses. These programs, practices, and procedures would ensure that construction-related noise generated by construction associated with the proposed recreation facility would remain less than significant, and no mitigation would be required.

Construction of the recreational component of the NHIP alone would be less than significant, and no specific mitigation would be required. However, all relevant 2002 LRDP MMs and PPs related to construction occurring under the LRDP shall be applied to reduce overall construction impacts to the maximum extent feasible. Further, as specific projects are proposed during the LRDP planning horizon, which may include recreational facilities or uses, UCLA would evaluate potential environmental impacts and prepare all required documentation in full accordance with CEQA.

4.12.4 Cumulative Impacts

The geographic context for the analysis of cumulative recreational impacts is the City of Los Angeles, including all cumulative growth therein, as represented by full implementation of the City of Los Angeles General Plan Framework and development of the related projects provided by Table 4-1 (Off-Campus Related Projects) of Section 4.0 (Introduction to Environmental Analysis).

The rationale for including the entire City is that students, faculty, and staff who commute to UCLA live off campus. Therefore, they may utilize a variety of recreational facilities and programs offered by the campus and/or the City of Los Angeles. As additional residential development in the City is approved, in-lieu fees for parks or donation of parkland (pursuant to the Quimby Act) would be required as part of the individual projects. In addition, grants from state and county bond sources (e.g., Proposition 12 and Proposition A) are available to fund additional park and recreational facilities in urban areas. These funding sources would provide additional parkland and recreational facilities in the City to satisfy demand from future population growth, and cumulative impacts on park and recreation facilities is anticipated to be less than significant as a result.

As described in Impact 4.12-1, a significant increase in the demand for off-campus recreational facilities is not anticipated as a result of implementation of the 2002 LRDP, and on-campus recreational facilities will continue to be adequately provided for students, faculty, and staff. The campus contributes the equivalent of 55 acres of recreational facilities to the City's parkland inventory, as well as major capital improvements to these facilities, which are available to the residents of the City. The campus also maintains and operates these facilities. Therefore, implementation of the 2002 LRDP would not increase demand for parkland and recreational facilities in the City of Los Angeles, and thus the contribution of the 2002 LRDP to cumulative impacts is less than significant. This is considered to be a *less-than-significant* impact.

It is further anticipated that in order to accommodate future cumulative demand for park and recreation facilities, additional park and recreation facilities will be developed and constructed throughout the City of Los Angeles. Because the size, location and type of these future facilities is not known at this time, it is impossible to assess the magnitude of cumulative impacts associated with the construction of these facilities. However, it is reasonable to expect that all of these facilities will undergo CEQA review, and that project-specific impacts associated with development of each of these facilities will be mitigated to the extent feasible. As a result, cumulative impacts associated with construction of future park and recreation facilities is expected to be less than significant. The only specific recreational project component of the 2002 LRDP is the facility proposed for the Northwest Zone as part of the NHIP. The impacts of the NHIP construction, including the recreational component of this project, are fully analyzed in Volume 2 of this EIR. While construction of the NHIP as a whole is expected to have a number of significant and unavoidable impacts, a portion of which may be attributable to construction of the recreational facilities, this construction activity is not anticipated to result in a significant cumulative impact when considered in conjunction with the construction of future park and recreation facilities elsewhere in the City of Los Angeles. As a result, the contribution of the 2002 LRDP to cumulative impacts from construction of park and recreational facilities citywide is less than significant. This is considered to be a *less-than-significant* impact.

4.12.5 References

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4.13 TRANSPORTATION/TRAFFIC

This section of the EIR evaluates the potential for implementation of the proposed 2002 LRDP to result in impacts to parking, access, traffic, circulation, and other transportation modes, including the potential for the proposed project to increase local and regional traffic volumes, exceed a level of service standard, increase hazards due to a design feature, interfere with emergency access, result in inadequate parking supply, or conflict with applicable alternative transportation programs, practices, and procedures.

Data used in preparation of this section is taken from the UCLA Long Range Development Plan Transportation Systems Analysis (TSA) conducted for the project by Crain & Associates (included as Appendix 4 [Traffic Technical Report] of this document). The full bibliographic entry for this reference material is provided in Section 4.13.4 (References). This traffic study evaluates existing traffic conditions at the project site, future traffic conditions at the project site (without implementation of the 2002 LRDP), and estimates traffic conditions following implementation of the 2002 LRDP, for both the regular and summer sessions.

Comment letters issued in response to the initial Notice of Preparation circulated for the project were received from the City of Los Angeles and California Department of Transportation (Caltrans). The City of Los Angeles comment letter requested a pre-scoping meeting to determine the necessary requirements and key assumptions for preparing the traffic analysis. The Caltrans comment letter requested the traffic study incorporate the following information: (1) assumptions and methods used to develop trip generation/distribution percentages and assignments; (2) an analysis of ADT, A.M., and P.M. peak hour volumes for both the existing and future (expected project build-out) conditions; and (3) discussion of mitigation measures to alleviate anticipated traffic impacts. In addition, the circulation of the Revised Notice of Preparation (that took place in March 2002, as described in Section 1.4 [EIR Review Process]) also drew comment letters from Caltrans and a variety of homeowners in the vicinity of the UCLA campus. The Caltrans comment letter requested that the most recent possible conditions and behavioral information be utilized for the traffic impact analysis in the EIR. Comment letters from the various homeowners generally expressed concerns over existing transportation and traffic conditions in their neighborhoods and quality of life. Specific concerns over existing traffic, air quality, and noise impacts from buses at the Hilgard Avenue bus terminal were also expressed.

A scoping meeting was held with LADOT to discuss the base traffic data, key assumptions, and technical methodologies to be used in the traffic analysis for 2002 LRDP. As a result of the discussion, the study area street system was refined and an additional study area intersection was added.

4.13.1 Environmental Setting

Regional Highway and Street Network

The UCLA campus is located within the community of Westwood in the City of Los Angeles. The major freeways and surface streets in the project vicinity are described below and illustrated by Figure 4.13-1 (Site Vicinity Map).

Freeways

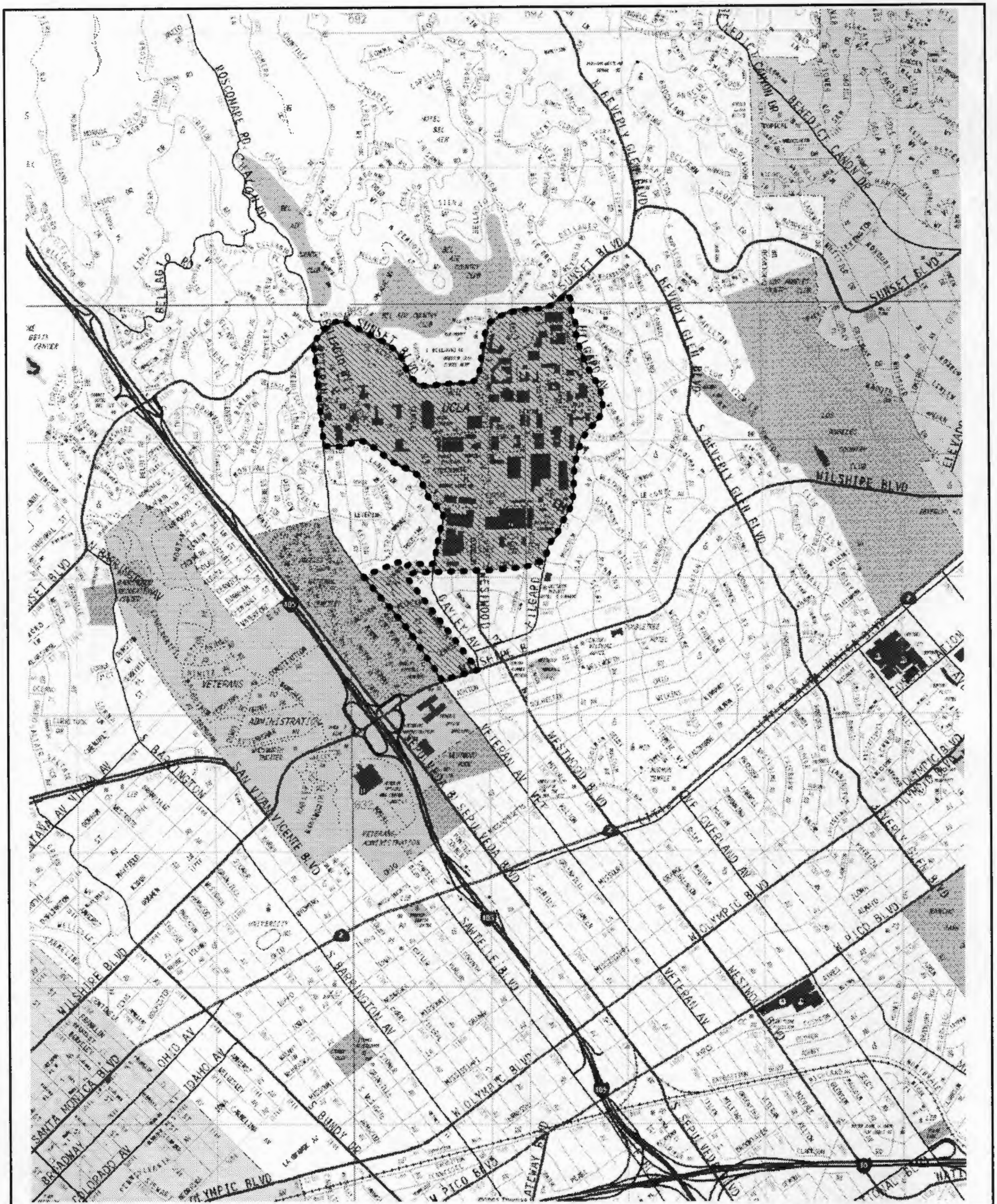
The project site is located approximately 0.7 mile east of the San Diego Freeway (I-405), which is a north/south freeway that provides regional access throughout and beyond the western portion of Los Angeles County. The I-405 also provides direct access to other freeways around the project area, including an interchange with the Santa Monica Freeway (I-10) approximately 2.5 miles south of the campus and with the Ventura Freeway (U.S. Highway 101) approximately seven miles northwest of the campus. Access to and from the surface street network immediately surrounding the project site is provided by northbound and southbound freeway on- and off-ramps located at Wilshire Boulevard, Santa Monica Boulevard, and at Sunset Boulevard, and a northbound off-ramp and southbound on-ramp located near Montana Avenue.

The I-10 is an east/west freeway that provides regional access for Los Angeles County, extending east to San Bernardino and beyond. This freeway typically provides four through lanes per direction in the vicinity of the campus. Figure 4.13-1 also illustrates the nearby freeways serving the project site.

Streets and Highways

The following is a list of major surface streets that make up the project area's extensive street network:

- *Wilshire Boulevard*—An arterial that serves as a major thoroughfare between the Westside and Downtown Los Angeles, which begins in Downtown Los Angeles and traverses westerly through the cities of Los Angeles, Beverly Hills, and Santa Monica. Designated as a Major Highway throughout its length, Wilshire Boulevard is also one of the highest capacity surface street routes between the San Diego Freeway and the Century City/Beverly Hills areas. No parking is permitted on Wilshire Boulevard from Beverly Hills to just west of San Vicente Boulevard.
- *Westwood Boulevard*—A Major Highway facility that runs north/south in the vicinity of the UCLA campus, terminating at Le Conte Avenue where it becomes Westwood Plaza, an internal campus roadway that provides two to three travel lanes in each direction. Westwood Boulevard provides two to three through lanes in each direction and left-turn channelization. On-street parking is provided on both sides of the street.



Not to Scale

SOURCE: Thomas Guide Map, 2002

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FIGURE **4.13-1**

Site Vicinity Map

UCLA 2002 LRDP

- *Sunset Boulevard*—An east/west oriented Major Highway throughout the Westside providing a continuous facility from Downtown Los Angeles, through West Hollywood and Beverly Hills, and continuing through Pacific Palisades where it terminates at the Pacific Coast Highway. In the study area, Sunset Boulevard is approximately 50 feet wide and is striped for two lanes in each direction plus left-turn channelization at major intersections. Parking is prohibited along Sunset Boulevard within the study area.
- *Hilgard Avenue*—Forming the eastern boundary of the UCLA campus, this north/south-oriented Secondary Highway (with two travel lanes in each direction) connects to Sunset Boulevard to the north and merges with Lindbrook Drive to the south. On-street parking is generally permitted, hut prohibited on some segments.
- *Le Conte Avenue*—A Secondary Highway through the commercial portions of Westwood Village (between Gayley Avenue and Hilgard Avenue), and downgraded to a local (residential) street east of Hilgard Avenue. Le Conte Avenue provides a single travel lane in each direction plus left-turn channelization and on-street parking on both sides of the street.
- *Gayley Avenue*—Serving as a primary access route for the UCLA campus, this north/south-oriented Secondary Highway extends from Veteran Avenue on the north (where it becomes Montana Avenue) to Wilshire Boulevard on the south (where it becomes Midvale Avenue). Gayley Avenue is striped to provide one to two travel lanes in each direction, and on-street parking is allowed along some portions of this road.
- *Strathmore Drive*—As a local street that serves the residential neighborhood west of the campus, Strathmore Drive enters the UCLA campus and changes names to Strathmore Place, which is a two-lane per direction internal campus roadway. Permit parking is provided.
- *Levering Avenue*—A short, northwest-to-southeast oriented local street to the west of the campus that begins at Montana Avenue (west of Veteran Avenue) and terminates at Glenrock Avenue (west of Gayley Avenue). At its intersection with Veteran Avenue, Levering Avenue is 40 feet wide and is striped to provide a single lane in each direction plus on-street parking.
- *Veteran Avenue*—A north/south oriented Secondary Highway located west of the campus. Between Sunset Boulevard and Wilshire Boulevard, Veteran Avenue generally varies in width from approximately 40 to 60 feet and is striped to provide a single travel lane in each direction along with on-street parking on both sides of the street.
- *Montana Avenue*—An east/west-oriented collector street that provides one lane in each direction within the project vicinity. A northbound off-ramp from I-405 is provided to Montana Avenue, and street parking is restricted to permitted vehicles.
- *Sepulveda Boulevard*—Designated as a Major Highway, Sepulveda Boulevard provides two through lanes in each direction in the vicinity of UCLA and extends northerly to the vicinity of the I-405 and I-5 interchange. On-street parking is provided on both sides of the street along most of Sepulveda Boulevard.

- *Church Lane*—As a frontage road that provides access to the I-405 southbound ramps (located north of Sunset Boulevard), Church Lane provides two through lanes in the northbound approach and one through lane in the southbound approach at Sunset Boulevard with left-turn and right-turn channelization in both directions. On-street parking is restricted to permitted vehicles.

- *Sawtelle Boulevard*—A designated Secondary Highway that is striped as a four-lane facility with left-turn channelization at major intersections. Sawtelle Boulevard extends in a northwest-to-southeast direction from Ohio Avenue to Overland Avenue (south of Jefferson Boulevard) in Culver City. On-street parking is provided on both sides of the street along most of Sawtelle Boulevard.

- *San Vicente Boulevard*—A major arterial that extends from Wilshire Boulevard near the Veteran's Hospital to Ocean Avenue in the City of Santa Monica. San Vicente Boulevard is striped for two through lanes in the northbound and southbound directions with triple left-turns in the southbound approach to Wilshire Boulevard and one left-turn lane and one right-turn lane in the northbound approach. On-street parking is generally provided along the entire length of this roadway.

- *Weyburn Avenue*—A single-lane local street that traverses the southern end of the UCLA Southwest campus zone, beginning at Veteran Avenue on the west and continuing east of Hilgard Avenue to Le Conte Avenue. No on-street parking is currently provided across the UCLA Southwest campus zone.

- *Kinross Avenue*—As a short local street that runs between Veteran Avenue on the west and Glendon Avenue on the east, Kinross Avenue provides one to two travel lanes and on-street parking in each direction. As part of the Southwest Campus Housing and Parking Project, the parking gates will be removed from this road on the UCLA Southwest campus zone, and this road will be opened to the public. No parking is provided.

- *Lindbrook Drive*—An east/west local street, east of Hilgard Avenue. West of Hilgard Avenue, it is a secondary highway striped for two travel lanes in each direction, with limited on-street parking permitted. This roadway extends northeasterly from Gayley Avenue and terminates at Devon Avenue (east of Beverly Glen Boulevard).

- *Tiverton Avenue*—A short secondary roadway running between Lindbrook Drive and Le Conte Avenue with on-street parking allowed on both sides of the street. North of Le Conte Avenue, the roadway enters the UCLA campus and becomes Tiverton Drive. Parking is provided on both sides of the street.

- *Wyton Drive*—A local street east of the UCLA campus that extends to Charles E. Young Drive East, allowing access to the east side of campus. Wyton Drive provides one lane in each direction between Hilgard Avenue and Beverly Glen Boulevard. On-street parking is restricted to permitted vehicles.

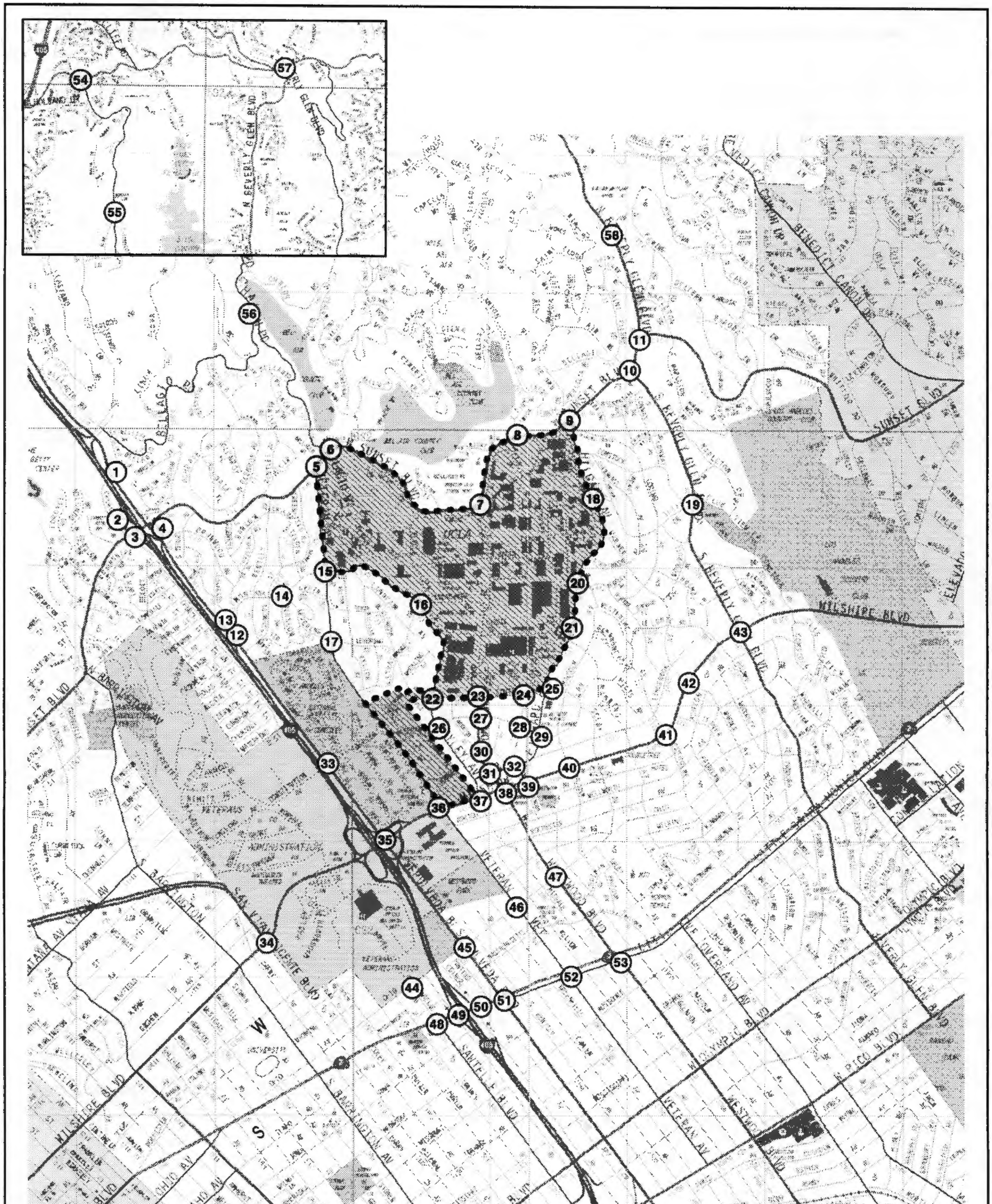
Refer to Volume 3, Chapter II (Text Changes)

- *Westholme Avenue*—A two-lane local street east of the UCLA campus that extends from Santa Monica Boulevard to Hilgard Avenue, where it becomes an internal campus roadway. On-street parking is restricted to permitted vehicles.
- *Manning Avenue*—A local street that serves the residential community east of the campus. West of Hilgard Avenue, Manning Avenue jogs northward where it becomes an access roadway to the campus. This roadway provides one lane in each direction at Hilgard Avenue. On-street parking is restricted to permitted vehicles.
- *Malcolm Avenue*—A local street (located east of the campus) that runs parallel to Hilgard Avenue. Malcolm Avenue also intersects Wilshire Boulevard where it provides one through lane in each direction. On-street parking is restricted to permitted vehicles.
- *Beverly Glen Boulevard*—A north/south oriented major arterial located approximately 0.5 miles east of the campus. Two through lanes and left-turn channelization is generally provided in the project vicinity, with on-street parking provided on both sides of the street.
- *Ohio Avenue*—An east/west collector street (located to the south of the project site) that serves as a heavily used roadway for local access. In the campus vicinity, Ohio Avenue is typically 40 feet in width and is striped to provide a single travel lane in each direction; although at many intersections, localized flarings or parking restrictions allow for left and/or right-turn channelization. Parking is provided on both sides of the street throughout a majority of its length.
- *Santa Monica Boulevard*—A designated east-west major arterial that extends from the City of Santa Monica to Hollywood. In the study area, this roadway extends from southwest to northeast. In addition, Santa Monica Boulevard is striped for three to four lanes of travel per direction at the I-405 Freeway and two to three lanes in each direction east of Sepulveda Boulevard. Parking is provided on the north side of Santa Monica Boulevard and the south side of Little Santa Monica Boulevard.
- *Copa De Oro Road*—A short local street that intersects Sunset Boulevard and is located across Hilgard Avenue. This roadway provides one lane in each direction and serves the residents northeast of the project. No on-street parking is permitted.
- *Stone Canyon Road*—Primarily serves the residential neighborhood north of UCLA. South of Sunset Boulevard, Stone Canyon Road becomes Royce Drive, which is a campus roadway. No on-street parking is permitted.
- *Bellagio Way*—A secondary road that serves the residential neighborhood northwest of the campus. This two-lane roadway extends to Sunset Boulevard, where it crosses into campus and becomes Bellagio Drive. No on-street parking is permitted.
- *Bel Air Road*—A short local street located north of Sunset Boulevard and aligned with Beverly Glen Boulevard. This road provides one lane in each direction, and no on-street parking is permitted.

- *Linda Flora Drive*—A short local roadway that intersects Roscomare Road and aligns with Stradella Road. This roadway provides one lane per direction, and on-street parking is provided on the north side of the street only.
- *Chalon Road*—A local roadway that extends from Stone Canyon Road to Bellagio Road where it bends northerly and becomes Linda Flora Drive. Chalon Road is striped for two lanes, and parking is provided on the south side of the street only.
- *Roscomare Road*—A north/south-oriented roadway located approximately one mile north of the campus) that extends northerly from Chalon Road and terminates at Mulholland Drive to the north. This roadway provides one lane in each direction and, parking is allowed on both sides of the street.
- *Stradella Road*—A local street located to the north of the campus that extends in a north/south direction from Roscomare Road to Sarbonne Road. This roadway provides one lane in each direction, and no on-street parking is provided.
- *Greendale Drive*—A short local street (located north of Sunset Boulevard) that intersects with Beverly Glen Boulevard. This roadway provides one travel lane per direction, and no on-street parking is provided.
- *Mulholland Drive*—An east/west oriented major highway located about four miles north of the campus. Mulholland Drive provides one lane in each direction at Roscomare Road and two lanes in each direction at Beverly Glen Boulevard. No on-street parking is provided.

Study Intersections

The traffic impact analysis performed by Crain & Associates examined study intersections within the area surrounding the UCLA campus that would most likely be affected by vehicle trips generated as a result of the implementation of the 2002 LRDP. In order to be consistent with the prior analysis performed in the 1990 LRDP, the traffic study for the 2002 LRDP incorporated in its analysis a detailed evaluation of existing and future traffic conditions at the same 52 study intersections that were addressed in the 1990 LRDP traffic study. In addition, 6 intersections located north of Sunset Boulevard have also been incorporated in this study, for a total of 58 study intersections. Figure 4.13-2 (Study Intersection Locations) shows the location of the 58 study intersections in the context of the surrounding street network. Table 4.13-1 (Study Intersections and Existing Traffic Conditions) shows the existing traffic conditions at each of the study intersections for the regular and summer sessions. In addition, the impact analysis in this study also incorporates two freeways, the San Diego Freeway (I-405) and the Santa Monica Freeway (I-10), for which seven freeway segments within the general project vicinity were examined and analyzed consistent with the Congestion Management Program. Table 4.13-2 (Existing [2001] Freeway Volumes and Levels of Service) identifies the freeway segments and their existing conditions.



Not to Scale

SOURCE: Thomas Guide Map, 2002

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FIGURE **4.13-2**

Study Intersection Locations

UCLA 2002 LRDP

Table 4.13-1 Study Intersections and Existing Traffic Conditions

No.	Intersection	Peak Hour	Regular Session		Summer Session	
			CMA	LOS	CMA	LOS
1	Church Lane/Ovada Place and Sepulveda Boulevard	A.M.	0.925	E	0.779	C
		P.M.	0.960	E	0.971	E
2	San Diego Fwy S/B On/Off Ramps and Church Lane	A.M.	0.950	E	0.973	E
		P.M.	0.953	E	1.193	F
3	Sunset Boulevard and Church Lane	A.M.	0.884	D	0.767	C
		P.M.	0.814	D	0.927	E
4	Sunset Boulevard and San Diego Fwy N/B On/Off-Ramps	A.M.	0.823	D	0.760	C
		P.M.	0.544	A	0.413	A
5	Sunset Boulevard and Veteran Avenue	A.M.	0.892	D	0.812	D
		P.M.	0.820	D	0.867	D
6	Sunset Boulevard and Bellagio Way	A.M.	0.941	E	0.939	E
		P.M.	1.008	F	1.042	F
7	Sunset Boulevard and Westwood Boulevard	A.M.	0.599	A	0.486	A
		P.M.	0.609	B	0.565	A
8	Sunset Boulevard and Stone Canyon Road	A.M.	0.505	A	0.395	A
		P.M.	0.604	B	0.582	A
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Rd.	A.M.	0.833	D	0.798	C
		P.M.	0.851	D	0.808	D
10	Sunset Boulevard and Beverly Glen Boulevard	A.M.	1.001	F	0.926	E
		P.M.	1.066	F	1.063	F
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard	A.M.	1.039	F	0.885	D
		P.M.	1.087	F	1.079	F
12	San Diego Fwy N/B Off-Ramp and Sepulveda Boulevard	A.M.	0.506	A	0.434	A
		P.M.	0.564	A	0.509	A
13	Montana Avenue and Sepulveda Boulevard	A.M.	0.931	E	0.668	B
		P.M.	0.890	D	0.850	D
14	Montana Avenue and Levering Avenue	A.M.	1.012	F	0.859	D
		P.M.	0.837	D	0.748	C
15	Montana Avenue/Gayley Avenue and Veteran Avenue	A.M.	0.866	D	0.778	C
		P.M.	0.999	E	0.969	E
16	Strathmore Place and Gayley Avenue	A.M.	0.697	B	0.623	B
		P.M.	0.625	B	0.466	A
17	Levering Avenue and Veteran Avenue	A.M.	0.491	A	0.489	A
		P.M.	0.637	B	0.633	B
18	Wyton Drive and Hilgard Avenue	A.M.	0.427	A	0.330	A
		P.M.	0.300	A	0.300	A

Table 4.13-1 Study Intersections and Existing Traffic Conditions

No.	Intersection	Peak Hour	Regular Session		Summer Session	
			CMA	LOS	CMA	LOS
19	Wyton Drive/Comstock Ave. and Beverly Glen Blvd.	A.M.	0.782	C	0.609	B
		P.M.	0.787	C	0.751	C
20	Westholme Avenue and Hilgard Avenue	A.M.	0.450	A	0.390	A
		P.M.	0.469	A	0.404	A
21	Manning Avenue and Hilgard Avenue	A.M.	0.273	A	0.182	A
		P.M.	0.320	A	0.223	A
22	Le Conte Avenue and Gayley Avenue	A.M.	0.646	B	0.567	A
		P.M.	0.548	A	0.519	A
23	Le Conte Avenue and Westwood Boulevard	A.M.	0.602	B	0.559	A
		P.M.	0.572	A	0.553	A
24	Le Conte Avenue and Tiverton Drive	A.M.	0.315	A	0.311	A
		P.M.	0.297	A	0.299	A
25	Le Conte Avenue and Hilgard Avenue	A.M.	0.543	A	0.404	A
		P.M.	0.621	B	0.439	A
26	Weyburn Avenue and Gayley Avenue	A.M.	0.421	A	0.406	A
		P.M.	0.691	B	0.779	C
27	Weyburn Avenue and Westwood Boulevard	A.M.	0.428	A	0.412	A
		P.M.	0.459	A	0.442	A
28	Weyburn Avenue and Tiverton Drive	A.M.	0.327	A	0.282	A
		P.M.	0.378	A	0.389	A
29	Weyburn Avenue and Hilgard Avenue	A.M.	0.356	A	0.328	A
		P.M.	0.525	A	0.493	A
30	Kinross Avenue and Westwood Boulevard	A.M.	0.407	A	0.429	A
		P.M.	0.705	C	0.560	A
31	Lindbrook Drive and Westwood Boulevard	A.M.	0.369	A	0.364	A
		P.M.	0.431	A	0.367	A
32	Lindbrook Drive and Tiverton Avenue	A.M.	0.599	A	0.294	A
		P.M.	0.525	A	0.311	A
33	Constitution Avenue and Sepulveda Boulevard	A.M.	0.415	A	0.376	A
		P.M.	0.590	A	0.531	A
34	Wilshire Boulevard and San Vicente Boulevard	A.M.	1.006	F	0.885	D
		P.M.	1.142	F	0.918	E
35	Wilshire Boulevard and Sepulveda Boulevard	A.M.	1.056	F	0.973	E
		P.M.	1.065	F	1.000	E
36	Wilshire Boulevard and Veteran Avenue	A.M.	0.934	E	0.847	D
		P.M.	1.361	F	1.292	F

Table 4.13-1 Study Intersections and Existing Traffic Conditions

No.	Intersection	Peak Hour	Regular Session		Summer Session	
			CMA	LOS	CMA	LOS
37	Wilshire Boulevard and Gayley Avenue	A.M.	0.689	B	0.647	B
		P.M.	0.785	C	0.742	C
38	Wilshire Boulevard and Westwood Boulevard	A.M.	0.715	C	0.699	B
		P.M.	0.709	C	0.698	B
39	Wilshire Boulevard and Glendon Avenue	A.M.	0.770	C	0.621	B
		P.M.	0.867	D	0.721	C
40	Wilshire Boulevard and Malcolm Avenue	A.M.	0.622	B	0.634	B
		P.M.	0.768	C	0.824	D
41	Wilshire Boulevard and Westholme Avenue	A.M.	0.814	D	0.630	B
		P.M.	0.805	D	0.778	C
42	Wilshire Boulevard and Warner Avenue	A.M.	0.757	C	0.757	C
		P.M.	0.635	B	0.635	B
43	Wilshire Boulevard and Beverly Glen Boulevard	A.M.	0.846	D	0.703	C
		P.M.	0.849	D	0.818	D
44	Ohio Avenue and Sawtelle Boulevard	A.M.	0.943	E	0.861	D
		P.M.	0.871	D	0.875	D
45	Ohio Avenue and Sepulveda Boulevard	A.M.	1.008	F	0.815	D
		P.M.	0.949	E	0.965	E
46	Ohio Avenue and Veteran Avenue	A.M.	0.819	D	0.687	B
		P.M.	0.989	E	0.890	D
47	Ohio Avenue and Westwood Boulevard	A.M.	0.730	C	0.561	A
		P.M.	0.779	C	0.641	B
48	Santa Monica Boulevard and Sawtelle Boulevard	A.M.	0.874	D	0.838	D
		P.M.	0.836	D	0.886	D
49	Santa Monica Boulevard and San Diego Fwy (S/B Ramp)	A.M.	0.816	D	0.870	D
		P.M.	0.675	B	0.667	B
50	Santa Monica Boulevard and San Diego Fwy (N/B Ramp)	A.M.	1.039	F	0.783	C
		P.M.	0.837	D	0.737	C
51	Santa Monica Boulevard and Sepulveda Boulevard	A.M.	0.970	E	0.901	E
		P.M.	1.016	F	0.871	D
52	Santa Monica Boulevard and Veteran Avenue	A.M.	0.875	D	0.729	C
		P.M.	0.914	E	0.873	D
53	Santa Monica Boulevard and Westwood Boulevard	A.M.	0.812	D	0.771	C
		P.M.	0.852	D	0.841	D
54	Roscomare Road and Mulholland Dr	A.M.	1.195	F	1.195	F
		P.M.	0.715	C	0.715	C

Table 4.13-1 Study Intersections and Existing Traffic Conditions

No.	Intersection	Peak Hour	Regular Session		Summer Session	
			CMA	LOS	CMA	LOS
55	Roscomare Road and Stradella Rd/Linda Flora Drive	A.M.	0.498	A	0.498	A
		P.M.	0.444	A	0.444	A
56	Chalon Road and Bellagio Road	A.M.	0.523	A	0.523	A
		P.M.	0.501	A	0.501	A
57	Beverly Glen Blvd and Mulholland Dr	A.M.	1.026	F	1.026	F
		P.M.	1.048	F	1.048	F
58	Beverly Glen Blvd and Greendale Dr	A.M.	0.812	D	0.812	D
		P.M.	0.811	D	0.811	D

Source: UCLA LRDP Transportation Systems Analysis, Crain & Associates, October 2002

Table 4.13-2 Existing (2001) Freeway Volumes and Levels of Service

No.	Location	Dir.	Peak Hour	No. Lanes	Freeway Capacity	Daily Volume	Peak Hr Volume	D/C	LOS[1]
1	San Diego Fwy. (I-405) South of Santa Monica Fwy.	N/B	A.M.	5	10,000	307,000	12,430	1.243	F(0)
			P.M.	5	10,000		11,190	1.119	F(0)
		S/B	A.M.	5	10,000		7,450	0.745	C
			P.M.	5	10,000		10,420	1.042	F(0)
2	San Diego Fwy. (I-405) Btwn. Santa Monica Fwy. & Santa Monica Blvd.	N/B	A.M.	5	10,000	313,100	8,250	0.825	D
			P.M.	5	10,000		11,350	1.135	F(0)
		S/B	A.M.	5	10,000		11,910	1.191	F(0)
			P.M.	5	10,000		10,570	1.057	F(0)
3	San Diego Fwy. (I-405) Btwn. Wilshire Blvd. & Santa Monica Blvd.	N/B	A.M.	6	12,000	291,900	7,720	0.643	C
			P.M.	6	12,000		11,280	0.940	E
		S/B	A.M.	6	12,000		11,140	0.928	D
			P.M.	6	12,000		9,230	0.769	C
4	San Diego Fwy. (I-405) Btwn. Sunset Blvd. & Wilshire Blvd.	N/B	A.M.	5	10,000	264,600	6,906	0.696	C
			P.M.	5	10,000		11,940	1.194	F(0)
		S/B	A.M.	5	10,000		10,040	1.004	F(0)
			P.M.	5	10,000		6,540	0.654	C
5	San Diego Fwy. (I-405) North of Sunset Blvd.	N/B	A.M.	5	10,000	262,600	6,850	0.685	C
			P.M.	5	10,000		11,740	1.174	F(0)
		S/B	A.M.	4	8,000		9,880	1.235	F(0)
			P.M.	4	8,000		6,440	0.805	D
6	Santa Monica Fwy. (I-10) Btwn. Bundy Dr. & San Diego Fwy.	W/B	A.M.	5	10,000	255,500	7,580	0.758	C
			P.M.	5	10,000		9,840	0.984	E
		E/B	A.M.	5	10,000		10,070	1.007	F(0)
			P.M.	5	10,000		9,350	0.935	E
7	Santa Monica Fwy. (I-10) Btwn. Overland Ave. & National Blvd.	W/B	A.M.	4	10,000	267,700	7,410	0.741	C
			P.M.	4	10,000		7,540	0.754	C
		E/B	A.M.	5	8,000		8,380	1.048	F(0)
			P.M.	5	8,000		9,630	1.204	F(0)

1. LOS designations based on criteria detailed in Appendix D to the traffic technical report (provided in Appendix 4 of this document).

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, August 2002

Alternative Transportation

Public Transit

The UCLA campus area is served by six public transit operators: Santa Monica Municipal Bus Lines (SMMBL), Culver City Bus (CCB), the Los Angeles County Metropolitan Transportation Authority (LACMTA), the Los Angeles Department of Transportation (LADOT), the Antelope Valley Transit Authority (AVTA), and Santa Clarita Transit (SCT). Together, these operators run a total of eighteen bus routes through the Westwood area by way of Le Conte Avenue, Hilgard Avenue, Gayley Avenue, or Wilshire Boulevard. These eighteen bus lines provide convenient access between the campus and areas as far west as Pacific Palisades and the City of Santa Monica, as far east as Montebello, as far south as the Los Angeles International Airport (LAX), and as far north as Santa Clarita. Figure 4.13-3 (Public Transit Routes) shows the public transit routes serving the UCLA campus.

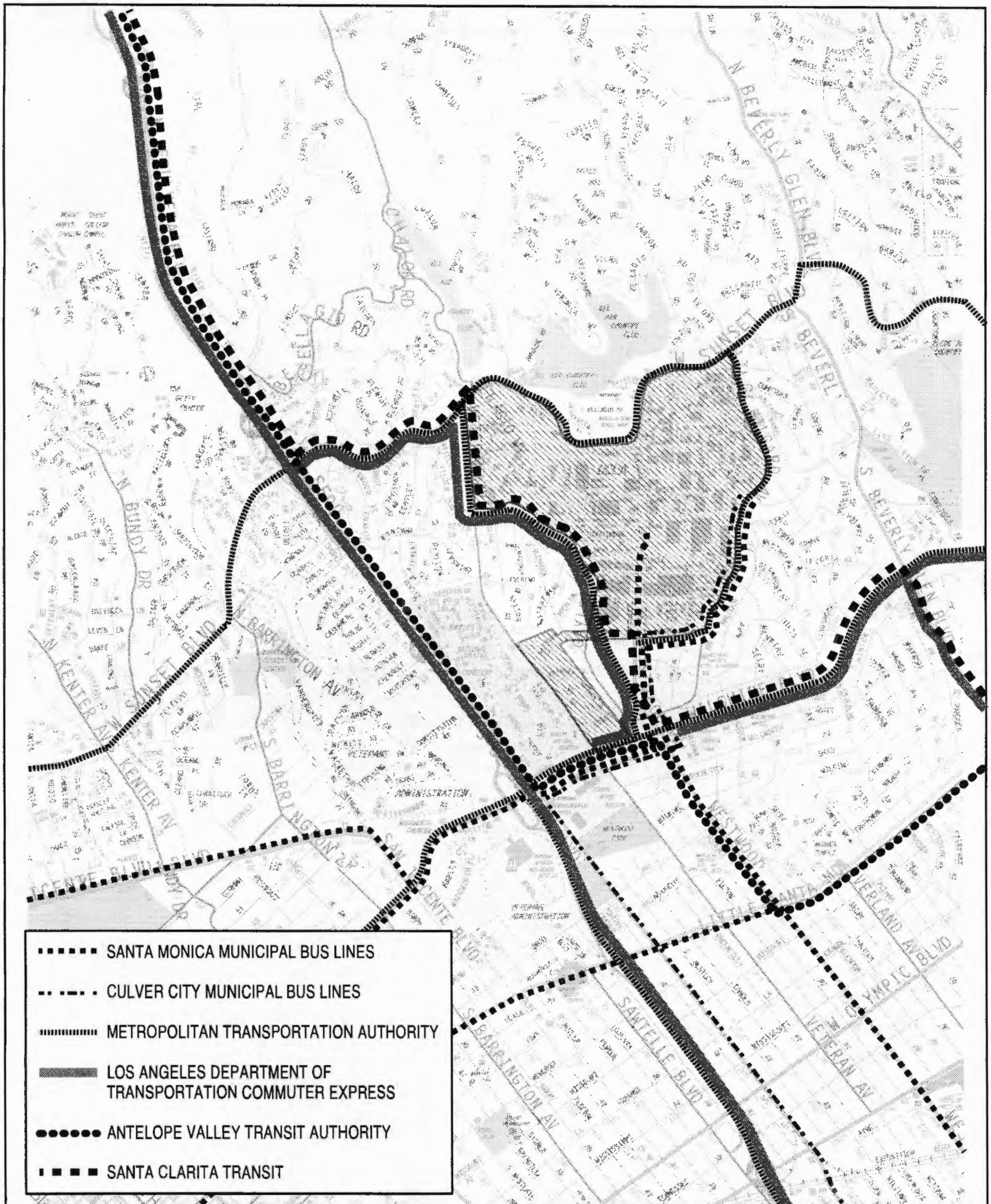
Table 4.13-3 (Current Estimated Bus Capacity [SMMBL and Culver City Lines Serving UCLA]) shows the current estimated bus capacity for the SMMBL and CCB bus lines. As shown in the table, SMMBL Line 12 and CCB Line 6 are above their seating capacity during the A.M. and P.M. peak periods. Standing room, however, remains available on all routes, and current total capacity is generally sufficient to meet demand.

Table 4.13-3 Current Estimated Bus Capacity (SMMBL and Culver City Lines Serving UCLA)

Route	Total Load	No. of Buses	Seats Available[1] (40 per Bus)	% of Seats Occupied	Total Capacity[1] (60 per Bus)	% of Total Capacity Occupied
A.M. Peak (to UCLA)						
SMMBL 1	540	18	720	75.0	1,080	50.0
SMMBL 2	253	8	320	79.1	480	52.7
SMMBL 3	144	9	360	40.0	540	26.7
SMMBL 8	379	10	400	94.8	600	63.2
SMMBL 12	531	13	520	102.1	780	68.1
Culver City 6	416	10	400	104.0	600	69.3
P.M. Peak (from UCLA)						
SMMBL 1	308	12	480	64.2	720	42.8
SMMBL 2	127	8	320	39.7	480	26.5
SMMBL 3	114	5	200	57.0	300	38.0
SMMBL 8	276	8	320	86.3	480	57.5
SMMBL 12	454	11	440	103.2	660	68.8
Culver City 6	402	10	400	100.5	600	67.0

1. The average capacity of existing and future buses is 40 seats per bus and 20 standees per bus. Actual capacity may vary by bus.

Source: Santa Monica Municipal Bus Lines, December 2001, and January 2002, Culver City Bus, November 2000



Not to Scale

SOURCE: Thomas Guide Map, 2002

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FIGURE **4.13-3**
Public Transit Routes

The current estimated bus capacities for the MTA services to Westwood are shown in Table 4.13-4 (Current Estimated Bus Capacity [MTA Lines Serving Westwood]). As shown in the table, substantial available capacity exists on these bus lines. It should be noted that because the LADOT, AVTA, and SCT bus lines provided limited service only during peak commute periods, no comparable data was available for those lines.

Table 4.13-4 Current Estimated Bus Capacity (MTA Lines Serving Westwood)

Route	Direction	Peak Bus Stop	Avg. No. of Seats Occupied	% of Total Occupied
Weekday (to/from Westwood)				
2	East	Sunset and S. Beverly Glen	14.5	24.2
2	West	Gayley and Landfair (east jog)	14.9	24.8
20	East	Wilshire and Glendon	14.9	24.9
20	West	Wilshire and Glendon	9.5	15.9
305	East	Sunset and S. Beverly Glen	6.7	11.2
305	West	Sunset and N. Beverly Glen	6.5	10.9
561	North	Hilgard and Charing Cross	15.1	25.1
561	South	Hilgard and Sunset	18.2	30.4
576	East/North	Gayley and Landfair (west jog)[1]	19.0	31.6
576	West/South	Gayley and Landfair (west jog)[2]	24.5	40.8
720	East	Westwood and Wilshire	28.5	47.5
720	West	Westwood and Wilshire	24.6	40.9

1. Also has the same average of 19.0 seats occupied at Le Conte and Gayley.
2. Also has the same average of 24.5 seats occupied at the intersections of Gayley and Landfair (east jog), Gayley and Strathmore, Gayley and Veteran, Le Conte and Gayley, and Le Conte and Westwood.

Source: Metropolitan Transit Authority, Winter, 2002

Based on MTA-provided data (which does not include data for the A.M. or P.M. peak), the most crowded line is the Metro Rapid Line (Line 720), which on a daily basis has 40 to 50 percent of its capacity used. Most other MTA lines serving the UCLA vicinity have much more capacity available.

During the public scoping meeting for the 2002 LRDP, residents of the Holmby-Westwood neighborhood raised comments concerning the existing conditions at the bus terminal located on Hilgard Avenue near Strathmore Avenue and its effects on local traffic, air quality, and noise. The residents commented that a large number of buses stop at this location and that many of the buses queue in the early morning/late night, allowing their engines to idle for long periods of time.

Because the campus and Westwood Village are destinations for a large number of public transit commuters, several public bus companies have located the beginning/end of some of their routes at the

Hilgard Bus Terminal. However, the campus does not own or operate any of these bus lines, and the campus does not have the authority to set or change bus schedules.

The campus has a temporary pilot program to subsidize the bus fares of campus members who ride one of the bus lines that use the Hilgard Bus Terminal. This transit pass program, called BruinGo, is implemented by the Santa Monica Big Blue Bus line. However, the BruinGo program has not necessitated the addition of any scheduled buses at the Hilgard Bus Terminal. Instead, it has utilized existing capacity.

The Santa Monica Big Blue Bus line has a program to retire all diesel-fueled buses and replace them with liquid natural gas (LNG), cleaner-fueled buses over the next eight years. They have already converted approximately 20 percent of their active fleet to LNG.

The campus is sensitive to local neighbors and is working with local government officials and the bus companies to address the traffic, air quality, and noise issues raised by the Holmby-Westwood neighborhood residents regarding the existing operations at the Hilgard Bus Terminal. As part of this effort, the Culver City Bus Company has re-routed its #6 bus into the campus rather than to the Hilgard Bus Terminal. The campus has also collaborated with the Big Blue Bus line to provide an express bus up and down Westwood Boulevard between National Boulevard and the campus. This bus operates during the peak morning and evening peak commute periods on school days and drives directly into the Westwood Plaza Ackerman Union turn-around on the campus. Both of these re-routing efforts have reduced the volume of buses at the Hilgard Bus Terminal. The campus will continue to work with local government and bus companies to assist in the development of alternatives that address the needs of all affected entities.

Campus Transportation Demand Management Program

The Transportation Demand Management (TDM) Program began at UCLA in 1984 with the establishment of the Commuter Assistance—Ridesharing (CAR) department to promote formation of carpools, vanpools, and buspools and to expand utilization of alternative transportation modes. In 1987, a Transportation Systems and Demand Management program was adopted to reduce peak-hour traffic and reduce parking demand, with reduced fees for carpools, subsidies for van pools, shuttles from off-campus UCLA-owned housing clusters and remote parking lots, on-campus facilities for bicycles and mopeds, alternative work schedules, and campus participation in local and regional traffic improvement programs. The 1990 LRDP EIR incorporated components of the program as mitigation measures and proposed a substantial expansion of on-campus housing to further reduce student commute trips. Over time, the components of the TDM program have changed, as the campus strives to identify cost-effective strategies to reduce campus trip generation and parking demand. Buspool service to remote park-and-ride lots and reduced-price parking lots at the Veterans Affairs property were discontinued due to low demand. A stratified parking fee system (where permits at convenient locations and with increased mobility cost more) was implemented. Campus Express shuttle service is being substantially expanded since its inception. The potential benefits of a transit subsidy for faculty and staff have been evaluated. Overall, the TDM program has evolved into a comprehensive program that offers a broad range of services to encourage and assist UCLA commuters in utilizing alternatives to the single-occupancy vehicle. As part of its on-going TDM Program, UCLA currently provides and promotes

- Vanpools
- Carpool matching and parking incentive programs
- Commuter Assistance-Ridesharing (CAR)
- Financial incentives for carpool and vanpool participants
- Accommodation of the use of other modes of transit (e.g., bicycles, motorcycles, and scooters)
- Shuttle bus service (around campus and to remote housing)
- Alternative work schedules and telecommuting
- Annual distribution of the UCLA Commuter's Guide
- Parking control management
- Restricting access to main campus parking facilities for on-campus housing residents
- TDM outreach
- On-campus housing

As a result of these various initiatives, the TDM program has reduced faculty and staff parking demand by more than 12 percent (below 1990 LRDP levels). In addition, since 1990, when the SCAQMD first required a survey of all employees to determine Average Vehicle Ridership[25] (AVR), the TDM program increased the campuswide AVR from 1.26 to 1.51 by the Spring 2000, exceeding the goal of 1.5 set by the SCAQMD. Currently, approximately 1,000 active carpools serve over 2,300 participants, and over 130 vans cover more than 85 communities and accommodate approximately 1,425 monthly full-time riders.

[25] The AVR is the ratio of employees arriving between 6 AM and 10 AM to the motor vehicles they drive to campus.

Refer to Volume 3, Chapter II (Text Changes)

In addition, the campus currently operates a pilot transit fare subsidy program entitled "BruinGo." UCLA and the Santa Monica Municipal Bus Lines launched the program at the beginning of academic year 2000–01 to provide fare-free bus travel to UCLA students, faculty, and staff on the "Big Blue Bus" upon presentation of a Bruin ID card. Although the campus continues to analyze the effectiveness of BruinGo within the context of the overall campus TDM program, the BruinGo pilot program has been extended for the 2002–03 academic year, through the Spring Quarter of 2003.

A comprehensive description of all current elements of the campus TDM program is provided in the Transportation Systems Analysis, which is included in Appendix 4 of this document.

Campus Parking Supply and Trip Generation

Parking Cap

The 1990 LRDP EIR estimated the total parking inventory would reach 25,169 spaces with completion of parking projects that were under construction or had been previously approved (prior to the 1990 LRDP). In response to concerns about the potential traffic impact of campus growth, the 1990 LRDP established a limit on the campus parking inventory at 25,169 spaces.

Parking Supply

Vehicular parking on the UCLA campus is provided in a variety of parking lots and structures. The current (Fall 2001) on-campus parking inventory is over 21,000 physical spaces, as shown in Table 4.13-5 (Current [Fall Quarter 2001] On-Campus Parking Inventory). Figure 4.13-4 (Campus Parking Facility Locations) shows the location of the parking areas.

Refer to Volume 3, Chapter II (Text Changes)

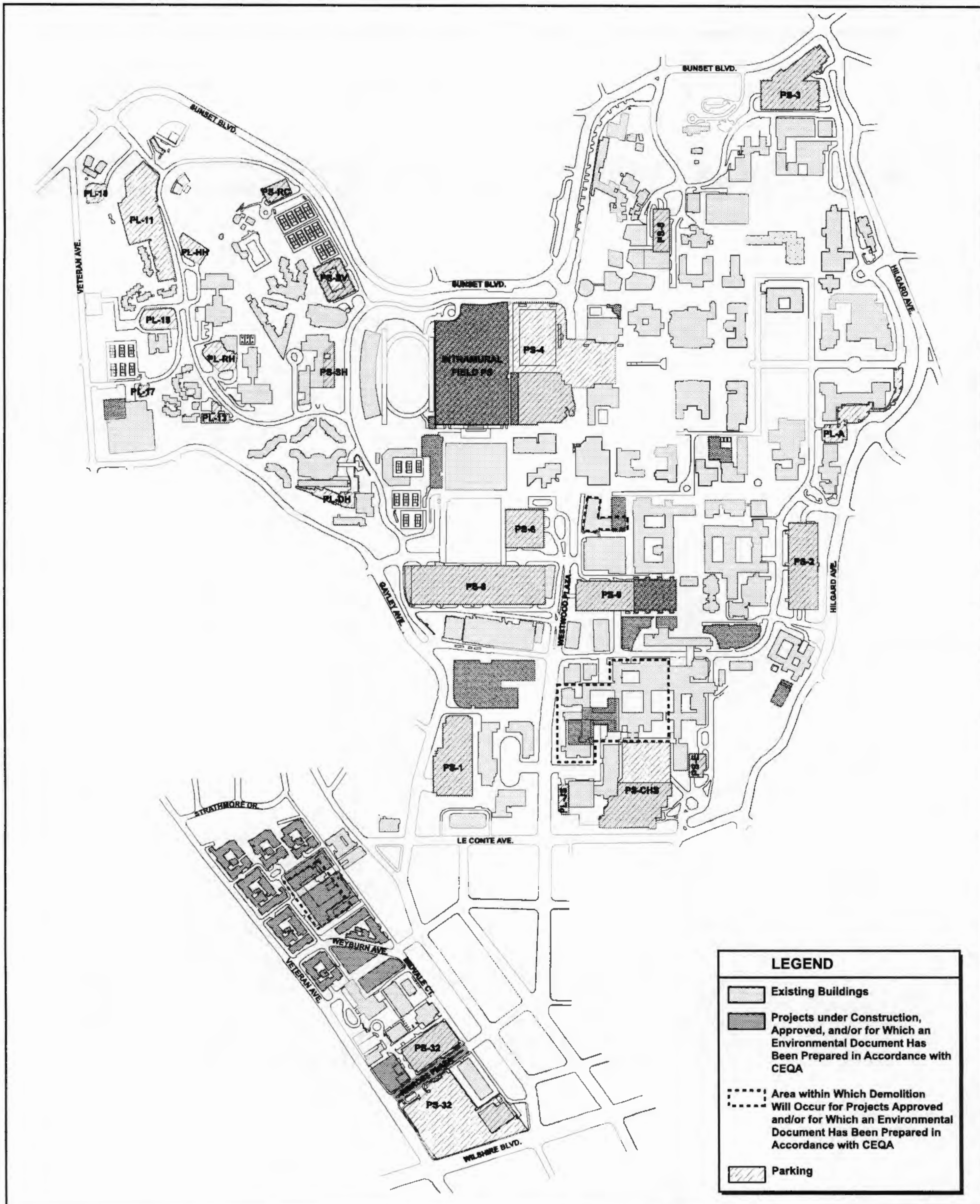
Under construction and previously approved projects, including the Westwood Replacement Hospital, Southwest Campus Housing and Parking, and the Intramural Field Parking Structure projects, would result in the development of a total of approximately 3,552 parking spaces. With adjustments to the supply of stack parking, the on-campus parking supply would remain at or under the 1990 LRDP parking cap of 25,169 spaces.

The 1990 LRDP established a limit of 25,169 parking spaces to limit the generation of vehicle trips and balance the need to accommodate vehicle trips to campus and promote alternative transportation modes, as encouraged by the campus' TDM program. As acknowledged by the *CEQA Air Quality Handbook* published by the South Coast Air Quality Management District, a reduction in air quality impacts can be achieved by constricting the availability of parking spaces and implementing a tiered pricing structure for parking, thereby increasing the attractiveness of alternative means of transportation. The combination of on-campus parking and the wide variety of available alternative transportation methods and programs makes UCLA accessible to faculty, staff, students, and visitors.

Table 4.13-5 Current (Fall Quarter 2001) On-Campus Parking Inventory

Parking Location	*Marked Spaces*	*Stack Spaces*	*Total*
Structures			
1	1,697	110	1,807
2	2,257	—	2,257
3	2,040	—	2,040
4	1,672	300	1,972
5	746	—	746
6	753	—	753
8	2,776	900	3,676
9	1,929	—	1,929
32	924	—	924
(Center for Health Sciences) CHS/G/MC	1,075	—	1,075
E/ER (Emergency Room)	155	—	155
MB/MP (Medical Plaza)	1,144	—	1,144
RC (Recreation Center)	147	—	147
Sproul Hall	64	—	64
SV (Sunset Village housing)	722	—	722
Structure Subtotals	*18,101*	*1,310*	*19,411*
Surface Lots			
Northwest (10, 11, 13, 15, 17, Dykstra/Bradley, Hedrick, Rieber, & Sproul)	872	—	872
Central (Lot A, Dickson Court, Fowler Dock, & Lot J)	306	—	306
North (Anderson School meters & Seeds Elementary School—UES/R)	89	—	89
Southwest—North End (30 & 31)	311	—	311
Southwest—Other (32, MR, V-32, V-33 & V-34)	849	—	849
South Medical (Doris/Jules Stein)	131	—	131
Miscellaneous (D, S, PVUB & W., University Extension)	40	—	40
Surface Lots Subtotals	2,598	—	2,598
Streets	321	—	321
Parking Inventory Total	***21,020***	***1,310***	***22,330***

Source: Crain & Associates, UCLA Long Range Development Plan Transportation Systems Analysis, October 2002



Not to Scale

SOURCE: UCLA

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FIGURE **4.13-4**

Campus Parking Facility Locations

Parking Allocation

Use of the parking spaces on the UCLA campus is controlled through a permit system, which allocates a number of parking spaces to faculty, staff, students, university guests, emeritus faculty, vendors (including construction workers), medical center patients, and visitors. Because work and class schedules vary, a portion of faculty, staff, and students are not on campus at any one time, and thus, the number of permits allocated exceeds the actual number of parking spaces. Current parking allocations for the regular and summer sessions are provided in Table 4.13-6 (Current Parking Allocation—Regular Session [Fall 2001]) and Table 4.13-7 (Current Parking Allocation—Summer Session [2000]).

Table 4.13-6 Current Parking Allocation—Regular Session (Fall 2001)

Permit Group	Number	Parking Permits	Parking Spaces
Faculty/Staff			
Health Sciences	5,617	4,655	3,329
General Campus	12,986	10,186	7,341
Residents			
Undergraduate Students	7,334	839	559
Commuter Students			
Academic Student Employees	4,005	2,578	1,854
Other Commuter Students	22,971	6,498	3,951
Other Permits			
Quarterly Guests/Emeritus	5,671	5,671	2,552
University Extension Permits	4,875	4,875	0
Daily Permit Sales	6,155	6,155	2,196
Other Spaces (Meters/Loading Zones)	—	—	548
Total		***41,457***	***22,330***

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Table 4.13-7 Current Parking Allocation—Summer Session (2000[1])

Permit Group	Number	Parking Permits	Parking Spaces
Faculty/Staff			
Health Sciences	5,617	4,655	3,329
General Campus	12,986	10,186	7,341
Residents			
Undergraduate Students	715	223	149
Conference/Program Attendees[2]	1,395	697	433
Commuter Students			
Academic Student Employees	2,562	1,649	1,186
Other Commuter Students	7,796	2,934	1,785

Table 4.13-7 Current Parking Allocation—Summer Session (2000[1])

Permit Group	Number	Parking Permits	Parking Spaces
Other Permits			
Quarterly Guests/Emeritus	5,671	5,671	2,552
University Extension Permits	4,875	4,875	0
Daily Permit Sales	6,155	6,155	2,196
Other Spaces (Meters/Loading Zones)	—	—	548
Unsold Spaces[3]			2,811
Total		***37,045***	***22,330***

1. The baseline year for the summer session is academic year 2000–01 (Summer 2000) in order to account for an increase in summer session enrollment that occurred in the summer of 2001 in response to State funding incentives designed to increase summer enrollment.
2. Residential attendance at summer conferences and other programs varies throughout the summer. This number represents peak conditions on an average weekday.
3. During the summer, a number of spaces remain unsold and are not occupied.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

By using the number of parking spaces allocated for each group and the number of individuals (or population) in that group, per person permit and parking space allocation ratios have been developed, which are shown in Table 4.13-8 (Current Parking Allocation Ratios). Parking allocation ratios can be used to predict changes in parking demand associated with changes in campus population.

Table 4.13-8 Current Parking Allocation Ratios

Permit Group	Permits per Person[1]		Spaces per Person[2]	
	Regular Session[3]	*Summer Session*[4]	*Regular Session*[3]	*Summer Session*[4]
Faculty/Staff				
Health Sciences	0.829		0.593	
General Campus	0.787		0.567	
Residents				
Undergraduate Students	0.1114	0.312	0.076	0.208
Commuter Students				
Academic Student Employees	0.644		0.463	
Other Commuter Students	0.283	0.376	0.172	0.229
Other Permits				
Quarterly Guests/Emeritus	1.000		0.450	
University Extension Permits	1.000			
Daily Permit Sales[5]	1.000		0.357	

1. Permit Group divided by the number of parking permits issued
2. Permit Group divided by the number of allocated parking spaces
3. Fall 2001
4. Summer 2000. Because more parking spaces are available during the summer, student ratios are different in the summer.
5. Daily permit sales include attendees of summer programs, including conferences.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Vehicle Trip Cap

The analysis in the 1990 LRDP EIR concluded that, with completion of all projects that were under construction or had been previously approved (prior to the 1990 LRDP), campus trip generation would increase from approximately 126,400 to approximately 145,000 average daily trips. To stabilize the campus' traffic impact, the 1990 LRDP included a cap on trip generation at 139,500 average daily trips. To achieve this reduction, the LRDP EIR incorporated mitigation measures to increase on-campus housing and expand the campus' Transportation Demand Management program. To underscore this commitment, the vehicle trip cap was codified in a Traffic Mitigation Monitoring Agreement (TMMA) with the City of Los Angeles.

Vehicle Trip Generation

In accordance with the terms of the TMMA, the campus and the Los Angeles Department of Transportation conduct a weeklong "Cordon Count" each year during the third week of the Fall Quarter (when regular session enrollment is highest) to estimate the total number of campus-related vehicle trips by counting the number of vehicles that enter and exit the campus at all campus entrances. The 2001 Cordon Count estimated that approximately 121,799 average daily vehicle trips were generated during the regular session. Trip generation during the summer of 2000 is estimated at approximately 108,325 average daily trips. For historical information concerning campus trip generation, refer to the Transportation Systems Analysis (included in Appendix 4 [Traffic Technical Report] of this document).

4.13.2 Project Impacts and Mitigation

Analytic Method

Analysis of Roadway Conditions

The methodology used for the analysis and evaluation of traffic conditions at each study intersection is based on procedures outlined in Circular Number 212 of the Transportation Research Board.[26] In the discussion of Critical Movement Analyses (CMA) for signalized intersections, procedures are outlined for determining operating characteristics of an intersection in terms of the Level of Service (LOS), which considers different levels of traffic volume and other variables, such as the number of traffic signal phases. LOS describes the quality of traffic flow. LOS A to LOS C indicate that an intersection operates quite well. LOS D typically is the level for which a metropolitan area street system is designed. LOS E represents volumes at or near capacity, which will result in possible stoppages of momentary duration

[26] *Interim Materials on Highway Capacity*, Circular Number 212, Transportation Research Board, Washington, D.C., 1980.

and fairly unstable flow. LOS F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration.

Determination of the LOS at an intersection where traffic volumes are known or have been projected can be obtained through a summation of critical movement volumes at that intersection. Once the sum of critical movement volumes has been obtained, the values indicated in Table 4.13-9 (Critical Movement Volume Ranges for Determining Levels of Service) can be used to determine the applicable LOS.

Table 4.13-9 Critical Movement Volume Ranges for Determining Levels of Service[1]

	Maximum Sum of Critical Volumes (VPH)		
Level of Service	*Two Phase[2]*	*Three Phase*	*Four or More Phases*
A	900	855	825
B	1,050	1,000	965
C	1,200	1,140	1,100
D	1,350	1,275	1,225
E	1,500	1,425	1,375
F	Not Applicable		

1. For planning applications only, (i.e., not appropriate for operations and design applications).
2. Phases refer to the number of directions for which traffic is controlled (e.g., by a light or stop sign).
3. Vehicles per hour.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Capacity is defined herein to represent the maximum total hourly movement volume that has a reasonable expectation of passing through an intersection under prevailing roadway and traffic conditions. For planning purposes, capacity equates to the maximum value of LOS E, as indicated in Table 4.13-9. The CMA indices used in this study were calculated by dividing the sum of critical movement volumes by the appropriate capacity value for the type of signal control present or proposed at the study intersections. Thus, the LOS corresponding to a range of CMA values is shown in Table 4.13-10 (Level of Service As a Function of CMA Values).

Table 4.13-10 Level of Service As a Function of CMA Values

Level of Service	*Range of CMA Values*
A	≤ 0.60
B	0.601 to 0.700
C	0.701 to 0.800
D	0.801 to 0.900
E	0.901 to 1.000
F	>1.000

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Analysis of Freeway Conditions

Recent (year 2000) traffic volumes on freeway segments were primarily obtained from the most current Caltrans data. A.M. and P.M. peak hour directional splits were taken from the Los Angeles County 1999 Congestion Management Program (CMP). Traffic volumes from 2000 were growth-factored by one percent to reflect year 2001 traffic conditions, as suggested by CMP traffic forecasting procedures. Existing freeway geometrics (e.g., number of mainline travel lanes) for each of the segments analyzed were determined from CMP data, aerial photographs, and field surveys.

Segment peak hour traffic capacities were computed for each direction using established Highway Capacity Manual (HCM) methodology. Potential future project-related impacts were analyzed using HCM methodology and CMP criteria (which identifies an increase of two percent or more on a segment with LOS of E or F as significant).

Campus Population Estimates

The population projections used in the 2002 LRDP include two primary types of campus population: headcount of number of individuals enrolled and employed at UCLA and average weekday population of other individuals. Although average weekday population is a more accurate estimate of the number of persons that are physically present on the campus during a typical weekday (based on reductions due to less than full time work and class schedules, vacations, sick days, sabbaticals, etc.), for the purposes of this analysis, headcount is used to produce a conservative analysis. However, for summer student enrollment, average weekday attendance is used, which is more representative of actual student attendance during the summer. (For a more complete discussion of population estimates associated with the LRDP, refer to Section 4.10 [Population and Housing] of this EIR.) The variation between headcount and average weekday attendance is reflected in the campus parking permit over-issue factor, where the number of parking permits allocated exceeds the physical number of spaces.

Previously Adopted Mitigation Measures

UCLA has adopted and implemented a range of transportation-related mitigation measures, in conjunction with the approval of the 1990 LRDP and other recently approved projects (including the Academic Health Center Facilities Reconstruction Plan, the Intramural Field Parking Structure, and the Southwest Campus Housing and Parking Project). For the purposes of this study, it is assumed that the measures previously adopted for specific projects will be implemented in conjunction with the development of those projects.

Campus Vehicle Trip Generation

As noted above, the 2001 Cordon Count estimated that approximately 121,799 average daily vehicle trips were generated during the regular session. Based on the 2001 trip count and counts conducted at individual parking lots and structures during two other academic years, a linear regression analysis was used to disaggregate total vehicle trips generated by the campus and those trips generated by each lot or structure into trip generation rates for various population (or user) groups (e.g., faculty/staff, commuter students, resident students). Daily permit sales and parking meter revenue data was also analyzed to estimate trip generation characteristics of other population groups, such as medical center patients and campus visitors. The results of these analyses are shown in Table 4.13-11 (Current Vehicle Trip Rates per Space).

Table 4.13-11 Current Vehicle Trip Rates per Space

Permit Group	Daily	A.M. Peak Hour[1]	P.M. Peak Hour[2]
Faculty/Staff			
Health Sciences	2.538	0.320	0.329
General Campus	3.293	0.284	0.383
Resident Students			
Undergraduate Students	2.444	0.034	0.202
Commuter Students			
Academic Student Employees	2.913	0.304	0.356
Other Commuter Students	3.716	0.247	0.334
Other Permits			
Quarterly Guest/Emeritus	3.789	0.400	0.198
University Extension Permits	—	—	—
Daily Permit Sales	8.546[3]	0.493	0.432

1. The A.M. Peak Hour is the 1-hour period between 7:00 and 9:00 A.M. with the highest traffic volumes.
2. The P.M. Peak Hour is the 1-hour period between 4:00 and 6:00 P.M. with the highest traffic volumes.
3. Because of the high turnover associated with visitor parking, visitor spaces generate approximately 8.5 vehicle trips per day.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Utilizing the estimated current campus population numbers (for each user group), vehicle trip rates (per space) were converted into per-person trip rates, which are shown on Table 4.13-12 (Current Vehicle Trip Rates per Person). Note that this table includes a new permit group of summer Conference/Program attendees, who reside on campus during their stay.

Table 4.13-12 Current Vehicle Trip Rates per Person

Permit Group	Regular Session			Summer Session		
	Daily	A.M. Peak Hour	P.M. Peak Hour	Daily	A.M. Peak Hour	P.M. Peak Hour
Faculty & Staff						
Health Sciences	1.504	0.190	0.195	1.354	0.171	0.175
General Campus	1.861	0.163	0.216	1.675	0.147	0.195
Residents						
Undergraduate Students	0.186	0.003	0.016	0.508	0.007	0.042
Conference/Program Attendees[1]	—	—	—	0.814	0.011	0.067
Commuter Students						
Academic Student Employee	1.348	0.141	0.165	1.213	0.126	0.148
Other Commuter Students	0.639	0.042	0.057	0.850	0.056	0.076
Other Permits						
Quarterly Guest/Emeritus	1.705	0.180	0.089	1.705	0.180	0.089
University Extension	1.705	0.000	0.000	1.705	0.000	0.000
Daily Permit Sales	3.049	0.176	0.154	3.049	0.176	0.154

1. Attendees of summer programs and conferences that reside on campus during their stay.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Using the per person trip rates and current allocations of parking spaces (for each population group), an estimate of how each population group contributes to overall campus trip generation was developed, as shown in Table 4.13-13 (Current Vehicle Trip Generation—Regular Session). This breakdown also includes estimates for certain campus uses (e.g., the Child Care Center, campus shuttle buses) and a single line entry that covers both two-wheeled motor vehicles and through traffic.

Table 4.13-13 Current Vehicle Trip Generation—Regular Session

Permit Group	Daily	A.M. Peak Hour	P.M. Peak Hour
Faculty/Staff			
Health Sciences	8,449	1,066	1,094
General Campus	24,172	2,119	2,811
Resident Students			
Undergraduate Students	1,366	19	113
Commuter Students			
Academic Student Employees	5,398	563	659
Other Commuter Students	14,684	975	1,319
Other Permits			
Quarterly Guest/Emeritus	9,670	1,021	505
University Extension Permits	8,313	N/A	N/A
Daily Permit Sales	18,768	1,083	948

Table 4.13-13 Current Vehicle Trip Generation—Regular Session

Permit Group	Daily	A.M. Peak Hour	P.M. Peak Hour
Other Parking (e.g., meters)	3,931	85	328
Through Traffic/Drop Offs/Deliveries/Two-Wheeled Vehicles[1]	22,042	1,345	1,169
Campus Shuttles	2,948	229	244
Campus Total	*119,741*	*8,505*	*9,191*
Wilshire Center[2]	2,058	155	206
Cordon Total	***121,799***	***8,662***	***9,397***

1. Includes trips associated with deliveries, passenger drop-offs, sightseeing, two wheeled vehicles and vehicles that use campus streets to travel to and from destinations in the surrounding community.
2. Trips generated by UCLA occupants of the Wilshire Center are included in accordance with the Traffic Mitigation Monitoring Agreement between UCLA and the City of Los Angeles.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

For an estimate of summer trips, it was assumed that only 90 percent of faculty and staff would be on campus due to vacations, off-campus summer research activities, and sabbaticals. Generation rates for regular session were used for other population groups and uses, except for students, for which summer-specific generation rates were developed. As shown in Table 4.13-14 (Current Vehicle Trip Generation—Summer Session), the lower number of student trips (compared to regular session) reflects the fewer number of students that are on campus during the summer.

Table 4.13-14 Current Vehicle Trip Generation—Summer Session

Permit Group	Daily	A.M. Peak Hour	P.M. Peak Hour
Faculty/Staff			
Health Sciences	7,604	959	985
General Campus	21,755	1,907	2,530
Residents			
Undergraduate Students	363	5	30
Conference/Program Attendees	1,135	16	94
Commuter Students			
Academic Student Employees	3,108	324	379
Other Commuter Students	6,630	440	596
Other Permits			
Quarterly Guest/Emeritus	9,670	1,021	505
University Extension Permits	8,313	N/A	N/A
Daily Permit Sales	18,768	1,083	948
Other Parking (e.g., meters)	3,931	85	328
Through Traffic/Drop Offs/Deliveries/Two-Wheeled Vehicles	22,042	1,345	1,169

Table 4.13-14 Current Vehicle Trip Generation—Summer Session			
Permit Group	*Daily*	*A.M. Peak Hour*	*P.M. Peak Hour*
Campus Shuttles	2,948	229	245
Campus Total	*106,267*	*7,414*	*7,809*
Wilshire Center	2,058	155	206
Cordon Total	***108,325***	***7,569***	***8,015***

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Future "Without Project" Conditions

Related Projects

To develop an estimate of future traffic conditions in the vicinity of the campus, a list of off-campus related projects and their characteristics was developed, as shown in Table 4.13-15 (Off-Campus Related Projects). The location of these off-campus projects is depicted on Figure 4.13-5 (Off-Campus Related Project Location Map).

Table 4.13-15 Off-Campus Related Projects

No.	*Description*	*Location*	*MDU*[1]	*Retail Employees*	*Nonretail Employees*	*Total Employees*
1	19,000 sf Whole Foods Supermarket	1050 Gayley Ave.	0	235	0	235
	937 seat Movie Theater (Previous Use)		0	(28)	0	(28)
	10,500 sf Restaurant (Previous Use)		0	(23)	0	(23)
			0	*184*	*0*	*184*
2	115,000 sf Shopping Center	1001 Tiverton Ave.	0	253	0	253
	350 DU Apartment		350	0	0	0
			350	*253*	*0*	*253*
3	19 DU Apartment	10852 Lindbrook Ave.	19	0	0	0
	6,100 sf Specialty Retail		0	13	0	13
	16,100 sf Specialty Retail (Previous Use)		0	(35)	0	(35)
			19	*(22)*	*0*	*(22)*
4	107 DU Condominium	10804 Wilshire Blvd.	107	0	0	0
5	6 Pump Gas Station w/ Convenience Market	10991 Santa Monica Blvd.	0	22	0	22
6	71,000 sf Century City Shopping Center	10250 Santa Monica Blvd.	0	156	0	156
7	791,000 sf General Office	10270 Constellation Blvd.	0	0	3,164	3,164
8	ABC Entertainment Center	2000 Avenue of the Stars	0	(487)	1,724	1,238
9	360,000 sf Fox Studio Expansion (remainder est.)	10201 W. Pico Blvd.	0	0	1,440	1,440
10	2,300 sf Fast-Food Restaurant w/ Drive-thru	11021 W. Pico Blvd.	0	5	0	5
11	74,653 sf Office Building	11110 W. Pico Blvd.	0	0	299	299

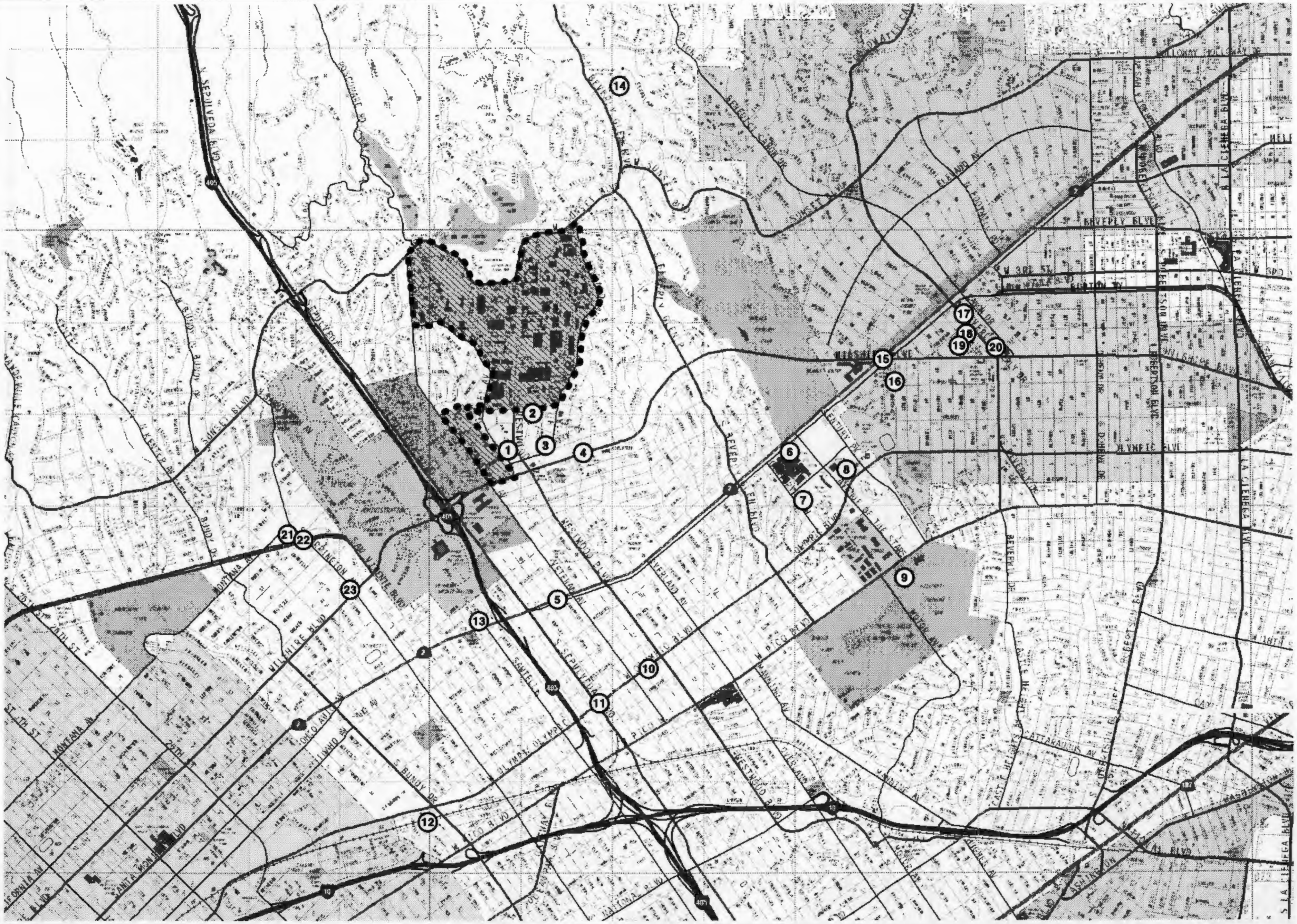
Table 4.13-15 Off-Campus Related Projects						
No.	**Description**	**Location**	**MDU[1]**	**Retail Employees**	**Nonretail Employees**	**Total Employees**
12	330,000 sf Office	12233 W. Olympic Blvd.	0	0	1,320	1,320
	41,000 sf Office (Previous Use)		0	0	(164)	(164)
	6,000 sf Specialty Retail (Previous Use)		0	(13)	0	(13)
	16 Pump Gas Station (Previous Use)		0	(66)	0	(66)
			0	*(79)*	*1,156*	*1,077*
13	1,140 sf Retail (Alcohol Permit)	11305 Santa Monica Blvd.	0	(3)	0	(3)
14	Harvard-Westlake Middle School (24 net students and 15 net employees)	700 N. Faring Rd.	0	0	15	15
15	95,000 sf Office	Wilshire Blvd. and Santa Monica Blvd.	0	0	380	380
	9,633 sf Retail (Previous Use)		0	(21)	0	(21)
			0	*(21)*	*380*	*359*
16	20 DU Condominium	137–147 Spalding Dr.	20	0	0	0
17	15,000 sf Shopping Center	421–527 N. Beverly Dr.	0	33	0	33
	15,000 sf Office		0	0	60	60
			0	*33*	*60*	*93*
18	15,000 sf Shopping Center	339 N. Rodeo Dr.	0	33	0	33
19	5,000 sf Shopping Center	360 N. Rodeo Dr.	0	11	0	11
20	41,500 sf Office	233–269 N. Beverly Dr.	0	0	166	166
21	54,313 sf Shopping Center	11711 San Vicente Bl.	0	119	0	119
22	1,900 sf Fast Food Restaurant w/ Drive-Thru	11712 San Vicente Bl.	0	4	0	4
23	146,708 sf Office	11677 Wilshire Bl.	0	0	587	587

1. MDU = Multiple Dwelling Unit

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, September 2002

Campus Trip Generation

To estimate future traffic volumes from the UCLA campus, a list of projects that have been previously approved and/or analyzed in an environmental document prepared in accordance with CEQA was developed, as provided in Table 4.13-16 (UCLA Projects). These projects were analyzed to determine how they would impact the parking inventory and vehicle trip generation for the campus.



Not to Scale

SOURCE: Thomas Guide Map, 2002

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EIP ASSOCIATES

FIGURE **4.13-5**

Off-Campus Related Project Location Map

UCLA 2002 LRDP

Table 4.13-16 UCLA Projects[1]

Project	Net New Gross Square Feet (gsf)	Population Change
Men's Gym Staging Bldg (Wooden West)	33,025	0
Intramural Field Parking (Storage Space)	3,600	0
Physics and Astronomy	101,900	6
Luck Research Center	95,000	45
Southwest Campus Staging Building	75,000	0
Acosta Training Center	33,325	0
Glorya Kaufman Hall (Garden Dance Theater)	3,600	0
NanoSystems Engineering Facilities Plan	166,000	174
Southwest Campus Housing and Parking	882,000	37
Total Net New GSF	*1,393,450*	*262*
Seismic Renovation	***Renovation or Replacement GSF***	
Academic Health Center Replacement (Hospital, SRB1, 2 & 3)	1,710,000	
Broad Art Center	146,000	
Kinsey Hall	142,000	
Men's Gym	103,300	
Glorya Kaufman Hall (Dance)	81,000	

1. Includes projects that were not completed at the time of LRDP traffic counts, or that are reasonably foreseeable (i.e., approved, under construction or analyzed in an environmental document prepared in accordance with CEQA).

Source: UCLA, May 2002

Based on traffic studies performed for recent UCLA projects (including the Southwest Campus Housing and Parking and the Intramural Field Parking Structure projects), trip generation rates were estimated to determine future UCLA trip rates for 2010–11 (that would occur if these projects were completed, no additional projects were approved, and the 2002 LRDP was not implemented), as shown in Table 4.13-17 (Future Without Project Vehicle Trip Rates per Person).

The trip rates in Table 4.13-17 indicate that development of the Southwest Campus Housing and Parking project would result in a new population "user group" of graduate student residents. In addition, due to an increase in the supply of on-campus parking (associated with the previously approved projects, including the Intramural Field Parking Structure), the per-person trip rate for students would increase in the future (compared to current conditions, because more student permits would be available, and therefore more student trips would be generated). These future trip rates were used to estimate future vehicle trip generation that would occur if all of the previously approved projects (listed in Table 4.13-16) were developed, and no new projects were approved or developed. Estimated future "Without Project" vehicle trip generation is shown in Table 4.13-18 for the regular session and Table 4.13-19 for the summer session.

Table 4.13-17 Future Without Project Vehicle Trip Rates per Person

Permit Group	Regular Session Daily	Regular Session A.M. Peak Hour	Regular Session P.M. Peak Hour	Summer Session Daily	Summer Session A.M. Peak Hour	Summer Session P.M. Peak Hour
Faculty & Staff						
Health Sciences	1.504	0.190	0.195	1.354	0.171	0.175
General Campus	1.861	0.163	0.216	1.675	0.147	0.195
Residents						
Undergraduate Students	0.186	0.003	0.018	0.508	0.007	0.042
Graduate Students[1]	0.959	0.091	0.101	0.958	0.092	0.100
Graduate Employed Off Campus	N/A	N/A	N/A	3.350	0.280	0.400
Conference/Program Attendees	N/A	N/A	N/A	0.814	0.011	0.067
Commuter Students						
Academic Student Employee	1.348	0.141	0.164	1.213	0.126	0.148
Other Commuter Students	0.974	0.065	0.088	0.851	0.056	0.076
Other Permits						
Quarterly Guest/Emeritus	1.705	0.180	0.089	1.705	0.180	0.089
University Extension	1.705	0.000	0.000	1.705	0.000	0.000
Daily Permit Sales	3.049	0.176	0.154	3.049	0.176	0.154

1. Graduate student residents of the Southwest Housing complex

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Table 4.13-18 Future Without Project Vehicle Trip Generation— Regular Session (2010–11)

Permit Group	Number	Daily Trips	A.M. Peak Hour Trips	P.M. Peak Hour Trips
Faculty & Staff				
Health Sciences	5,617	8,449	1,066	1,094
General Campus	13,074	24,336	2,133	2,830
Residents				
Undergraduate Students	7,334	1,366	19	113
Graduate Students	2,000	1,917	182	201
Commuter Students				
Academic Student Employee	3,219	4,339	453	529
Other Commuter Students	21,757	21,190	1,407	1,904
Other Permits				
Quarterly Guest/Emeritus	5,671	9,670	1,021	505
University Extension	5,336	9,099	—	—
Daily Permit Sales	6,155	18,768	1,083	948
Other Parking (e.g., meters)		3,931	85	328

Table 4.13-18 Future Without Project Vehicle Trip Generation—Regular Session (2010–11)

Permit Group	Number	Daily Trips	A.M. Peak Hour Trips	P.M. Peak Hour Trips
Through Traffic/Drop Offs/Deliveries/ Two-Wheeled Vehicles		22,042	1,345	1,169
Campus Shuttles		2,948	229	245
Main/Southwest Campus Total		*128,055*	*9,023*	*9,866*
Wilshire Center	950	1,768	155	206
Cordon Total		***129,823***	***9,176***	***10,072***

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Table 4.13-19 Future Without Project Trip Generation—Summer Session (2010)

Permit Group	Number	Daily Trips	A.M. Peak Hour Trips	P.M. Peak Hour Trips
Faculty & Staff				
Health Sciences	5,617	7,604	959	985
General Campus	13,074	21,903	1,920	2,547
Residents				
Undergraduate	715	363	5	30
Graduate	599	574	55	60
Graduate Employed Off Campus	1,401	4,694	392	560
Conference/Program Attendees	1,395	1,135	16	94
Commuter Students				
Academic Student Employee	2,049	2,486	259	303
Other Commuter Students	7,710	6,558	435	589
Other Permits				
Quarterly Guest/Emeritus	5,671	9,670	1,021	505
University Extension	5,336	9,099	0	0
Daily Permit Sales	6,155	18,768	1,083	948
Other Parking (e.g., meters)		3,931	85	328
Through Traffic/Drop Offs/Deliveries/ Two-Wheeled Vehicles		23,042	1,345	1,169
Campus Shuttles		2,948	229	245
Main/Southwest Campus Total		*111,750*	*7,804*	*8,363*
Wilshire Center	950	1,768	155	206
Cordon Total		***113,543***	***7,959***	***8,569***

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Traffic Conditions

Future traffic volumes for the project study area were projected using a micro-computer version of the Southern California Association of Government's (SCAG) Transportation Model. This model projects future traffic conditions (for academic year 2010–11)[27] assuming current trends in regional growth. For this study, various changes were incorporated into the model to account for future highway improvements, and for implementation of mitigation measures (including those adopted for the 1990 LRDP and recently approved UCLA projects). In addition, key assumptions about campus transportation programs (such as continued implementation of TDM programs, the parking cap, and maintenance of the Average Vehicle Ridership at 1.5) were factored into future projections of campus parking demand and trip generation.

Because the transportation model used for this traffic study is based on a regional model developed by SCAG to cover a five-county region, the following changes were incorporated into the model to more accurately replicate the roadway conditions of the study area. Additional roadway "links" were added to represent the streets and highways in and around the project vicinity, including the UCLA campus and Westwood area. Field surveys were used to document roadway geometrics, turning restrictions, traffic signal phasing, on-street parking, and other factors that may affect vehicle travel speeds and routes. The model was also refined to account for future highway improvements that are now under construction or for which implementation is reasonably foreseeable (including High-Occupancy Vehicle or "carpool" lanes on the San Diego Freeway (I-405), a reversible traffic lane on Sepulveda Boulevard north of Wilshire Boulevard, and the Santa Monica Boulevard Transitway between I-405 and Century City). The capacity of some roadways was modified to reflect previously installed signal system upgrades (such as the Automated Traffic Surveillance and Control, or "ATSAC" system). Both land use data and future socioeconomic projections were disaggregated to smaller zones in the study area to better replicate traffic access patterns and provide a finer level of detail. For each zone in the study area, traffic volumes that would result from the SCAG socioeconomic data was compared to the volumes that would result after implementation of the on-campus and off-campus related projects (identified for that zone). The larger of the traffic volumes (from the SCAG data or the list of UCLA and off-campus projects) was added to the existing traffic volumes to estimate future traffic conditions. This was conservative in that the highest potential traffic volumes were used for each zone. The results of this analysis are shown in Table 4.13-24 (Critical Movement Analysis Summary, Existing and Future Conditions—Regular

[27] To provide a conservative analysis, although the LRDP is based on academic years, the future year modeled for this study was 2011. Throughout this document, future traffic conditions, or future year 2011 conditions is intended to reflect traffic conditions during the academic year 2010–11.

Session) and Table 4.13-26 (Critical Movement Analysis Summary, Existing and Future Conditions—Summer Session), which show future traffic conditions both with and without implementation of the 2002 LRDP.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For the purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on transportation/traffic if it would result in any of the following:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio, or congestion at intersections)
- Exceed, either individually or cumulatively, a level of service standard established by the County Congestion Management Agency for designated roads or highways
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Result in inadequate parking capacity
- Conflict with adopted programs, practices, or procedures supporting alternative transportation (e.g., bus turnouts, bicycle racks)

For the purposes of this study, a substantial increase in traffic is defined consistent with City of Los Angeles criteria, where a significant impact is identified as an increase in the CMA value of 0.010 or more when the final ("With Project") LOS is E or F; a CMA increase of 0.020 or more when the final LOS is D; or an increase of 0.040 or more at LOS C. No significant impacts are deemed to occur at LOS A or B, as these operating conditions exhibit sufficient surplus capacities to accommodate large traffic increases with little effect on traffic delays.

Effects Not Found to Be Significant

Threshold	Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The Initial Study determined that development associated with the 2002 LRDP, including the proposed NHIP, would not result in a change in air traffic patterns or an increase in traffic levels. No impact to air traffic patterns would occur as a result of the project, and no additional analysis is required in this EIR.

Impacts and Mitigation

Threshold	Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio, or congestion at intersections)?

Impact LRDP 4.13-1 **Implementation of the 2002 LRDP would result in additional vehicular trips during the regular session, which would result in a substantial degradation in intersection levels of service. This is considered a *significant* impact.**

Implementation of the 2002 LRDP would result in an increase in student enrollment, the employment of additional faculty and staff, and an increase in visitors to campus. The increase in campus population would increase the demand for parking, and the utilization of additional parking spaces would generate additional vehicle trips compared to existing conditions. The increase in campus-related vehicle trip generation would increase traffic volumes on the local street and regional highway network, which could degrade intersection levels of service.

Parking Allocation

Because of the additional parking demand associated with new faculty, staff, and visitors, as well as the construction of new parking, the allocation of parking spaces would change. Because the future parking supply (that would result from changes associated with previously approved projects) would be less than the parking cap established in the 1990 LRDP and for the purposes of this analysis, it was assumed that the on-campus supply of parking would increase to 25,169 spaces (e.g., with the use of stack parking). Table 4.13-20 (Future On-Campus Parking Allocation with 2002 LRDP—Regular Session) shows how on-campus parking spaces would be allocated with full implementation of the 2002 LRDP.

Table 4.13-20 Future On-Campus Parking Allocation with 2002 LRDP—Regular Session

Permit Group	Number	Parking Permits	Spaces
Faculty and Staff			
Faculty & Staff-Medical Center	6,159	5,104	3,543
Faculty & Staff-Other University	14,339	11,247	7,868
Residents			
Undergraduate Students	9,009	1,031	667
Graduate Students	2,000	1,917	1,917
Commuter Students			
Academic Student Employee	3,573	2,300	1,605
Other Commuter Students	21,866	6,521	3,849
Other Permits			
Quarterly Guest/Emeritus	6,207	6,207	2,711
University Extension[1]	5,336	5,336	N/A
Daily Permit Sales	7,109	7,109	2,461
Other Spaces (Meters/Loading Zones)	—	—	548
Total Spaces			***25,169***

1. University Extension permits are only valid in the evening or on weekends, and thus demand for those spaces is not additive.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

With on-campus parking spaces allocated as illustrated above, permit allocation ratios would change, as shown in Table 4.13-21 (Future Parking Ratios with 2002 LRDP).

Table 4.13-21 Future Parking Ratios with 2002 LRDP

Permit Group	Permits Per Person	Spaces Per Person
Faculty & Staff		
Health Sciences	0.829	0.575
General Campus	0.784	0.549
Residents		
Undergraduate Students	0.114	0.079
Graduate Students	0.959	0.959
Graduate Employed Off Campus[1]	0.959	0.959
Commuter Students		
Academic Student Employee	0.644	0.449
Other Commuter Students	0.298	0.176
Other Permits		
Quarterly Guest/Emeritus	1.000	0.437
University Extension	1.000	0.347
Daily Permit Sales[2]	1.000	0.346

1. A portion of graduate student residents would not be enrolled or employed on campus during the summer.
2. Daily permit sales during the summer includes parking for conferences and other program attendees.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Vehicle Trip Generation

With the changes in campus population, provision of additional on-campus housing, and the resultant reallocation of parking spaces, future on-campus trip generation rates would change as shown in Table 4.13-22 (Future On-Campus Trip Generation Rates with 2002 LRDP).

Table 4.13-22 Future On-Campus Trip Generation Rates with 2002 LRDP

Permit Group	Regular Session Daily	Regular Session A.M. Peak Hour	Regular Session P.M. Peak Hour	Summer Session Daily	Summer Session A.M. Peak Hour	Summer Session P.M. Peak Hour
Faculty & Staff						
Health Sciences	1.504	0.190	0.195	1.354	0.171	0.175
General Campus	1.861	0.163	0.216	1.675	0.147	0.195
Residents						
Undergraduate	0.186	0.003	0.015	0.508	0.007	0.042
Graduate	0.959	0.091	0.101	0.958	0.091	0.101
Graduate Employed Off Campus	N/A	N/A	N/A	3.350	0.280	0.400
Conference/Program Attendees[1]	N/A	N/A	N/A	0.814	0.011	0.068
Commuter Students						
Academic Student Employee	1.348	0.141	0.165	1.214	0.127	0.148
Other Commuter Students	0.674	0.045	0.061	0.885	0.059	0.079
Other Permits						
Quarterly Guest/Emeritus	1.705	0.180	0.089	1.705	0.180	0.089
University Extension	1.705	0.000	0.000	1.705	0.000	0.000
Daily Permit Sales	3.049	0.176	0.154	3.049	0.176	0.154

1. Some conference and other summer program attendees are provided on-campus housing in student residential facilities and purchase a daily parking permit.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Using the future trip generation rates illustrated in the table above, an estimate of how each population group (as modified by the projected changes in campus population described in Section 4.10 [Population and Housing]) would contribute to future total vehicle trip generation (with implementation of the 2002 LRDP) was developed, as provided in Table 4.13-23 (Future Vehicle Trip Generation with 2002 LRDP—Regular Session).

Table 4.13-23 Future Vehicle Trip Generation with 2002 LRDP—Regular Session

Permit Group	Number	Daily Trips	A.M. Peak Hour Trips	P.M. Peak Hour Trips
Faculty & Staff				
Health Sciences	6,159	9,264	1,169	1,199
General Campus	14,339	26,690	2,339	3,104
Residents				
Undergraduate Students	9.009	1,678	24	139
Graduate Students	2,000	1,917	182	201
Commuter Students				
Academic Student Employee	3,573	4,816	503	588
Other Commuter Students	21,863	14,736	978	1,324
Other Permits				
Quarterly Guest/Emeritus	6,207	10,584	1,117	552
University Extension	5,336	9,099	0	0
Daily Permit Sales	7,109	21,677	1,251	1,095
Other Parking (e.g., meters)		3,931	85	328
Through Traffic/Drop Offs/Deliveries/ Two-Wheeled Vehicles		23,042	1,345	1,169
Campus Shuttles		2,948	229	245
Campus Total		*129,382*	*9,222*	*9,944*
Wilshire Center		1,768	155	206
Cordon Total		***131,150***	***9,377***	***10,150***

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

As shown in Table 4.13-23, total future trip generation during the regular session would increase to approximately 131,150 average daily trips, an increase of approximately 9,351 average daily trips compared to current trip generation (but still below the cap of 139,500 average daily trips established by the 1990 LRDP).

Traffic Volumes

By comparing the increase in trip generation between the "Without Project" and "With 2002 LRDP" scenarios, the net increase in traffic volumes associated with implementation of the 2002 LRDP was determined and distributed on the local streets. Implementation of the 2002 LRDP would generally result in small increases or decreases in traffic volumes at the study intersections during the regular session.

Surface Street Impacts

Using the estimated future traffic volumes (that would result from implementation of the 2002 LRDP), a Critical Movement Analysis was conducted to identify future Levels of Service for the year 2011 and identify the impacts associated with implementation of the 2002 LRDP. Summaries of the CMA and LOS "Without Project" and "With Proposed 2002 LRDP" conditions at the 58 study intersections are shown in Table 4.13-24 (Critical Movement Analysis Summary, Existing and Future Conditions—Regular Session). This table also includes the existing (2001) CMA conditions to permit comparison of current and future conditions and to show the effects of cumulative traffic growth on the study area roadway network (which will occur even without implementation of the 2002 LRDP) for the regular session.

As summarized in Table 4.13-24, with projected future traffic conditions and based on the identified significance thresholds, the increase in vehicle trips associated with implementation of the 2002 LRDP would significantly impact the following intersections during the regular session:

5. Sunset Boulevard and Veteran Avenue (A.M. peak)
6. Sunset Boulevard and Bellagio Way (A.M. peak)
14. Montana Avenue and Levering Avenue (A.M. peak)
15. Montana Avenue/Gayley Avenue and Veteran Avenue (A.M. peak)
36. Wilshire Boulevard and Veteran Avenue (A.M. peak)

Table 4.13-24 Critical Movement Analysis Summary, Existing and Future Conditions—Regular Session

No.	Intersection	Peak Hour	Existing		Future Without Project		Future With Project		
			CMA	LOS	CMA	LOS	CMA	LOS	Impact
1	Church Lane/Ovada Place and Sepulveda Boulevard	A.M.	0.925	E	0.805	D	0.808	D	0.003
		P.M.	0.960	E	1.158	F	1.160	F	0.002
2	San Diego Fwy S/B On/Off Ramps and Church Lane	A.M.	0.950	E	0.629	B	0.633	B	0.004
		P.M.	0.953	E	0.589	A	0.590	A	0.001
3	Sunset Boulevard and Church Lane	A.M.	0.884	D	0.902	E	0.902	E	0.000
		P.M.	0.814	D	0.844	D	0.844	D	0.000
4	Sunset Boulevard and San Diego Fwy N/B On/Off-Ramps	A.M.	0.823	D	0.777	C	0.781	C	0.004
		P.M.	0.544	A	0.553	A	0.555	A	0.002
5	Sunset Boulevard and Veteran Avenue	A.M.	0.892	D	0.913	E	0.925	E	**0.012***
		P.M.	0.820	D	0.840	D	0.845	D	0.005
6	Sunset Boulevard and Bellagio Way	A.M.	0.941	E	0.971	E	0.982	E	**0.011***
		P.M.	1.008	F	1.063	F	1.067	F	0.004
7	Sunset Boulevard and Westwood Boulevard	A.M.	0.599	A	0.604	B	0.614	B	0.010
		P.M.	0.609	B	0.624	B	0.626	B	0.002
8	Sunset Boulevard and Stone Canyon Road	A.M.	0.505	A	0.504	A	0.508	A	0.004
		P.M.	0.604	B	0.616	B	0.618	B	0.002
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Rd.	A.M.	0.833	D	0.850	D	0.859	D	0.009
		P.M.	0.851	D	0.901	E	0.905	E	0.004
10	Sunset Boulevard and Beverly Glen Boulevard	A.M.	1.001	F	1.026	F	1.028	F	0.002
		P.M.	1.066	F	1.124	F	1.125	F	0.001
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard	A.M.	1.039	F	1.066	F	1.071	F	0.005
		P.M.	1.087	F	1.205	F	1.205	F	0.000
12	San Diego Fwy N/B Off-Ramp and Sepulveda Boulevard	A.M.	0.506	A	0.470	A	0.473	A	0.003
		P.M.	0.564	A	0.487	A	0.487	A	0.000
13	Montana Avenue and Sepulveda Boulevard	A.M.	0.931	E	1.081	F	1.086	F	0.005
		P.M.	0.890	D	0.874	D	0.876	D	0.002

Table 4.13-24 Critical Movement Analysis Summary, Existing and Future Conditions—Regular Session									
No.	Intersection	Peak Hour	Existing		Future Without Project		Future With Project		
			CMA	LOS	CMA	LOS	CMA	LOS	Impact
14	Montana Avenue and Levering Avenue	A.M.	1.012	F	1.188	F	1.202	F	**0.014***
		P.M.	0.837	D	0.957	E	0.961	E	0.004
15	Montana Avenue/Gayley Avenue and Veteran Avenue	A.M.	0.866	D	0.952	E	0.970	E	**0.018***
		P.M.	0.999	E	1.085	F	1.091	F	0.006
16	Strathmore Place and Gayley Avenue	A.M.	0.697	B	0.736	C	0.751	C	0.015
		P.M.	0.625	B	0.712	C	0.715	C	0.003
17	Levering Avenue and Veteran Avenue	A.M.	0.491	A	0.540	A	0.543	A	0.003
		P.M.	0.637	B	0.743	C	0.744	C	0.001
18	Wyton Drive and Hilgard Avenue	A.M.	0.427	A	0.475	A	0.483	A	0.008
		P.M.	0.300	A	0.361	A	0.363	A	0.002
19	Wyton Drive/Comstock Ave. and Beverly Glen Blvd.	A.M.	0.782	C	0.830	D	0.832	D	0.002
		P.M.	0.787	C	0.836	D	0.837	D	0.001
20	Westholme Avenue and Hilgard Avenue	A.M.	0.450	A	0.504	A	0.511	A	0.007
		P.M.	0.469	A	0.551	A	0.554	A	0.003
21	Manning Avenue and Hilgard Avenue	A.M.	0.273	A	0.288	A	0.296	A	0.008
		P.M.	0.320	A	0.341	A	0.344	A	0.003
22	Le Conte Avenue and Gayley Avenue	A.M.	0.646	B	0.699	B	0.705	C	0.006
		P.M.	0.548	A	0.583	A	0.585	A	0.002
23	Le Conte Avenue and Westwood Boulevard	A.M.	0.602	B	0.651	B	0.658	B	0.007
		P.M.	0.572	A	0.647	B	0.651	B	0.004
24	Le Conte Avenue and Tiverton Drive	A.M.	0.315	A	0.372	A	0.380	A	0.008
		P.M.	0.297	A	0.362	A	0.363	A	0.001
25	Le Conte Avenue and Hilgard Avenue	A.M.	0.543	A	0.602	B	0.614	B	0.012
		P.M.	0.621	B	0.716	C	0.717	C	0.001
26	Weyburn Avenue and Gayley Avenue	A.M.	0.421	A	0.406	A	0.414	A	0.008
		P.M.	0.691	B	0.659	B	0.663	B	0.004

Table 4.13-24 Critical Movement Analysis Summary, Existing and Future Conditions—Regular Session

No.	Intersection	Peak Hour	Existing		Future Without Project		Future With Project		
			CMA	LOS	CMA	LOS	CMA	LOS	Impact
27	Weyburn Avenue and Westwood Boulevard	A.M.	0.428	A	0.499	A	0.504	A	0.005
		P.M.	0.459	A	0.587	A	0.592	A	0.005
28	Weyburn Avenue and Tiverton Drive	A.M.	0.327	A	0.383	A	0.392	A	0.009
		P.M.	0.378	A	0.463	A	0.463	A	0.000
29	Weyburn Avenue and Hilgard Avenue	A.M.	0.356	A	0.375	A	0.381	A	0.006
		P.M.	0.525	A	0.641	B	0.643	B	0.002
30	Kinross Avenue and Westwood Boulevard	A.M.	0.407	A	0.639	B	0.645	B	0.006
		P.M.	0.705	C	1.005	F	1.009	F	0.004
31	Lindbrook Drive and Westwood Boulevard	A.M.	0.369	A	0.387	A	0.391	A	0.004
		P.M.	0.431	A	0.451	A	0.452	A	0.001
32	Lindbrook Drive and Tiverton Avenue	A.M.	0.599	A	0.653	B	0.660	B	0.007
		P.M.	0.525	A	0.577	A	0.581	A	0.004
33	Constitution Avenue and Sepulveda Boulevard	A.M.	0.415	A	0.360	A	0.361	A	0.001
		P.M.	0.590	A	0.571	A	0.571	A	0.000
34	Wilshire Boulevard and San Vicente Boulevard	A.M.	1.006	F	1.107	F	1.109	F	0.002
		P.M.	1.142	F	1.270	F	1.270	F	0.000
35	Wilshire Boulevard and Sepulveda Boulevard	A.M.	1.056	F	1.162	F	1.165	F	0.003
		P.M.	1.065	F	1.152	F	1.152	F	0.000
36	Wilshire Boulevard and Veteran Avenue	A.M.	0.934	E	0.977	E	0.987	E	**0.010***
		P.M.	1.361	F	1.243	F	1.248	F	0.005
37	Wilshire Boulevard and Gayley Avenue	A.M.	0.689	B	0.757	C	0.761	C	0.004
		P.M.	0.785	C	0.831	D	0.834	D	0.003
38	Wilshire Boulevard and Westwood Boulevard	A.M.	0.715	C	0.728	C	0.732	C	0.004
		P.M.	0.709	C	0.745	C	0.745	C	0.000
39	Wilshire Boulevard and Glendon Avenue	A.M.	0.770	C	0.818	D	0.822	D	0.004
		P.M.	0.867	D	0.950	E	0.951	E	0.001

Table 4.13-24 Critical Movement Analysis Summary, Existing and Future Conditions—Regular Session

No.	Intersection	Peak Hour	Existing		Future Without Project		Future With Project		
			CMA	LOS	CMA	LOS	CMA	LOS	Impact
40	Wilshire Boulevard and Malcolm Avenue	A.M.	0.622	B	0.692	B	0.692	B	0.000
		P.M.	0.768	C	0.857	D	0.857	D	0.000
41	Wilshire Boulevard and Westholme Avenue	A.M.	0.814	D	0.950	E	0.952	E	0.002
		P.M.	0.805	D	0.938	E	0.938	E	0.000
42	Wilshire Boulevard and Warner Avenue	A.M.	0.757	C	0.882	D	0.884	D	0.002
		P.M.	0.635	B	0.757	C	0.757	C	0.000
43	Wilshire Boulevard and Beverly Glen Boulevard	A.M.	0.846	D	0.961	E	0.963	E	0.002
		P.M.	0.849	D	0.981	E	0.983	E	0.002
44	Ohio Avenue and Sawtelle Boulevard	A.M.	0.943	E	0.995	E	0.996	E	0.001
		P.M.	0.871	D	0.919	E	0.919	E	0.000
45	Ohio Avenue and Sepulveda Boulevard	A.M.	1.008	F	1.166	F	1.169	F	0.003
		P.M.	0.949	E	1.032	F	1.033	F	0.001
46	Ohio Avenue and Veteran Avenue	A.M.	0.819	D	0.905	E	0.909	E	0.004
		P.M.	0.989	E	1.069	F	1.071	F	0.002
47	Ohio Avenue and Westwood Boulevard	A.M.	0.730	C	0.833	D	0.837	D	0.004
		P.M.	0.779	C	0.850	D	0.851	D	0.001
48	Santa Monica Boulevard and Sawtelle Boulevard	A.M.	0.874	D	0.922	E	0.924	E	0.002
		P.M.	0.836	D	0.882	D	0.882	D	0.000
49	Santa Monica Boulevard and San Diego Fwy (S/B)	A.M.	0.816	D	0.872	D	0.872	D	0.000
		P.M.	0.675	B	0.713	C	0.713	C	0.000
50	Santa Monica Boulevard and San Diego Fwy (N/B)	A.M.	1.039	F	1.097	F	1.098	F	0.001
		P.M.	0.837	D	0.913	E	0.913	E	0.000
51	Santa Monica Boulevard and Sepulveda Boulevard	A.M.	0.970	E	1.115	F	1.116	F	0.001
		P.M.	1.016	F	1.181	F	1.181	F	0.000
52	Santa Monica Boulevard and Veteran Avenue	A.M.	0.875	D	0.967	E	0.971	E	0.004
		P.M.	0.914	E	1.055	F	1.056	F	0.001

Table 4.13-24 Critical Movement Analysis Summary, Existing and Future Conditions—Regular Session

No.	Intersection	Peak Hour	Existing		Future Without Project		Future With Project		
			CMA	LOS	CMA	LOS	CMA	LOS	Impact
53	Santa Monica Boulevard and Westwood Boulevard	A.M.	0.812	D	0.904	E	0.908	E	0.004
		P.M.	0.852	D	0.964	E	0.964	E	0.000
54	Roscomare Road and Mulholland Dr	A.M.	1.195	F	1.257	F	1.258	F	0.001
		P.M.	0.715	C	0.751	C	0.751	C	0.000
55	Roscomare Road and Stradella Rd/Linda Flora Drive	A.M.	0.498	A	0.524	A	0.525	A	0.001
		P.M.	0.444	A	0.467	A	0.467	A	0.000
56	Chalon Road and Bellagio Road	A.M.	0.523	A	0.588	A	0.591	A	0.003
		P.M.	0.501	A	0.527	A	0.527	A	0.000
57	Beverly Glen Blvd and Mulholland Dr	A.M.	1.026	F	1.079	F	1.081	F	0.002
		P.M.	1.048	F	1.102	F	1.102	F	0.000
58	Beverly Glen Blvd and Greendale Dr	A.M.	0.812	D	0.853	D	0.858	D	0.005
		P.M.	0.811	D	0.853	D	0.853	D	0.000

* Indicates significant impact

Source: UCLA LRDP Transportation Systems Analysis, Crain & Associates, August 2002

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.13-1(a)	*The campus shall continue to maintain the 1990 LRDP vehicle trip cap of 139,500 average daily trips.*
PP 4.13-1(b)	*The campus shall continue to maintain the 1990 LRDP parking cap of 25,169 spaces.*
PP 4.13-1(c)	*The campus shall continue to provide on-campus housing to continue the evolution of UCLA from a commuter to a residential campus.* (This is identical to Air Quality PP 4.2-1(a) and Noise and Vibration PP 4.9-5(a).)
PP 4.13-1(d)	*The campus shall continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective.* (This is identical to Air Quality PP 4.2-1(b) and Noise and Vibration 4.9-5(b).)

Implementation of PP 4.13-1(a) and PP 4.13-1(b) would extend the 1990 limits on parking supply and total campus trip generation through 2010-11. Implementation of the Northwest Housing Infill project would be consistent with PP 4.13-1(c) and reduce vehicle trips made by commuter students. PP 4.13-1(d) would ensure continued implementation of the TDM program to reduce parking demand and vehicle trip generation.

To achieve additional reductions in parking demand and vehicle trip generation, the campus could further expand the TMD program. As noted above, since the inception of the TDM program, the components of the program have varied, as the University has investigated various programs and incentives. Remote park and ride lots served by buspools and near-campus lots (on the Veterans Affairs property with shuttle service to campus and reduced permit rates) were both discontinued due to low demand. Transit subsidies for faculty and staff have previously been evaluated and have not been recommended because of the limited potential to reduce total parking demand. The campus has extended the BruinGo transit pass pilot program for another year and will further evaluate the potential of the program to cost-effectively reduce parking demand. The University will continue to search for strategies to reduce parking demand and trip generation that are both cost-effective and attractive to faculty, staff, and students. PP 4.13-1(d) commits the campus to continue implementation of appropriate TDM strategies in order to meet the trip reduction and AVR targets established by the SCAQMD. However, no feasible strategy or program, beyond those already implemented or described

Refer to Volume 3, Chapter 2 (Text Changes)

herein, has been identified that would substantially expand participation in the TDM program and/or result in sizable decreases in parking demand or vehicle trip generation. Technological advancements, changes in commuting patterns, increases in commuting costs, or other factors could affect future participation in TDM programs. However, in the absence of such changes in external conditions, substantial expansion of the components of the TDM program is not considered feasible.

As availability of on-campus parking has a direct effect on campus trip generation, the University could reduce or restrict the parking supply in order to reduce vehicle trips. For the purposes of this EIR, it was assumed that the campus would construct additional parking, or continue stack parking, so that the total on-campus parking inventory in 2010–11 would be at or just below the limit of 25,169 spaces established in 1990. Completion of parking projects that are currently under construction and have previously been approved would increase the on-campus parking inventory to approximately 24,572 physical spaces. If the campus limited the total on-campus inventory to 24,572 spaces, this would represent a reduction of approximately 597 spaces below the level assumed in this analysis. This reduction in parking spaces would reduce parking availability, primarily for commuter students. A reduction of 597 spaces would reduce the number of commuter student permits by approximately 1,011 permits. As a result, over a thousand commuter students would be required to find alternative ways to get to campus. This could increase use of alternative transportation modes, including public transit, and increase demand for near-campus parking. It should be noted that the University strives to maintain a delicate balance between parking supply and demand for commuter student parking, in order to minimize spillover of parking into areas adjacent to the campus. As discussed in the 1990 LRDP EIR, the supply of on-street parking near the campus is extremely limited due to demand from multi-family residences along Hilgard Avenue and in the North (Westwood) Village. Thus, an increase in parking demand near the campus could either increase demand for parking in Westwood Village (at meters and parking lots), in areas south of Wilshire Boulevard, or in areas served by public transit (as students could park south of Wilshire and walk to the Campus Express shuttle bus in Parking Lot 32 or utilize public transit lines on Westwood or Wilshire Boulevards.) Thus a reduction of parking supply affecting more than 1,000 students could have secondary effects on public transit use and could result in adverse impacts to parking in Westwood Village and/or to on-street parking in areas south of the campus. Alternatively, the campus could reduce parking availability for other permit groups, such as visitors to campus, or vendors, including construction employees. Reduction in parking for those groups would shift parking demand to other locations, including meters and parking lots in Westwood Village, which could decrease parking availability to patrons of the retail and entertainment uses in that area. Because of these potentially adverse secondary impacts, a reduction in campus parking supply is considered infeasible.

As an alternative, the campus could elect not to construct parking associated with Phase II of the Southwest Campus Housing and Parking project. As currently designed, Phase II would include construction of apartments with approximately 638 beds and 638 parking spaces for occupants of the Phase II apartments. Elimination of these parking spaces would reduce trip generation associated with the resident students. However, as discussed in the Final EIR for the Southwest Campus Housing and Parking project, the development of on-campus graduate student housing is intended to promote the recruitment, academic achievement, retention, and growth and development of student scholars. The provision of adequate on-site parking for residents was included in the objectives of the project. Based upon extensive student surveys, a ratio of one parking space per bed was deemed necessary to assure that the housing project was competitive with comparable off-campus housing. Thus, elimination of parking for residents of Phase II of the Southwest Housing and Parking would constrain the ability of the University to market the housing to prospective graduate students and is, therefore, considered infeasible.

In addition to consideration of the potential to mitigate total campus parking demand and trip generation, various mitigation options were identified for individual intersections, including installation and/or upgrade of traffic signals and physical improvements (such as restriping or widening to create dedicated turn lanes).

To improve traffic flow, traffic signals can be interconnected and controlled by a computer program, such as the Automated Traffic Surveillance and Control (ATSAC) system, which the City of Los Angeles has already installed along the major streets in the vicinity of the campus, including Sunset and Wilshire Boulevards. (As part of the mitigation measures adopted for the 1990 LRDP, the University funded installation of ATSAC at ten intersections surrounding the campus.) ATSAC, which provides at least a 7 percent increase in capacity and even greater reductions in stops and delay, is also being installed at selected locations throughout the City. Technological advancements in traffic control systems have led to the development of the next generation of ATSAC, known as Adaptive Traffic Control System (ATCS), which can increase capacity by an additional 3 percent or more.

To mitigate potentially significant impacts associated with the implementation of the 2002 LRDP, UCLA could participate in funding the cost of additional ATCS installations at those signalized intersections where ATCS has not already been installed or where installation is not already planned. However, in conjunction with their approval of the Southwest Campus Housing and Parking project, The Regents adopted two mitigation measures (SWH C-6.2 and SWH C-6.3) to fund installation of ATCS at the intersections of Wilshire Boulevard and Veteran Avenue as well as Wilshire and Sepulveda Boulevards.

In a comment letter on the Draft EIR (for the Southwest Campus Housing and Parking project), the Los Angeles Department of Transportation indicated a preference for installation of ATCS at 41 intersections in the Westwood area, and, thus, would not proceed with ATCS installation at only two intersections. In consultations with the LADOT during the preparation of this EIR, LADOT has informed the University that the concept for installation of ATCS had been expanded to 51 intersections in the Westwood area, with an estimated cost of $20,000 per intersection for a total of approximately $1,020,000 for all 51 intersections. Because the potential impacts associated with the implementation of the 2002 LRDP would occur at a limited number of intersections, the City of Los Angeles may not be willing to upgrade only those intersections and, instead, defer the upgrade until such time as the City can fund a comprehensive installation of ATCS at all of the 51 intersections identified by LADOT. The University is willing to contribute its fair or appropriate share towards a comprehensive ATCS installation, meaning the University will negotiate for a contribution to the upgrade pursuant to procedures similar to those described in Government Code 54999 et seq. for contributions to utilities. In addition, the University will pay its fair share only if the City of Los Angeles has established a mechanism to collect funds from other developers or entities that are contributing to traffic impacts and implements the traffic signal upgrade. Because installation of ATCS is beyond the jurisdiction of The Regents to implement, installation of ATCS may not, therefore, be available to mitigate the impacts associated with LRDP implementation during the regular session. However, installation of ATCS is technically feasible, and the University is willing to contribute funding for ATCS installation at those intersections that would be significantly impacted by implementation of the 2002 LRDP.

As noted above, physical improvements at intersections could include restriping or widening to create dedicated turn lanes. Because many of the intersections that could be impacted by implementation of the 2002 LRDP have been addressed in previous environmental documents prepared for UCLA projects, the mitigation options identified in those documents were reviewed to determine their applicability to mitigate the impacts of the 2002 LRDP. Those documents include the Final EIRs for the Parking Structure 4 Expansion, Phase II (Janss Plaza), the Academic Health Center Facilities Reconstruction Plan, the Intramural Field Parking Structure, and the Southwest Campus Housing and Parking project.

In conjunction with the identification of feasible mitigation options for previous UCLA projects, discussion with community representatives regarding potential improvements have occurred, in which general opposition to street widening has been voiced because of the potential loss of mature trees and landscaping, which contribute to the visual quality of the neighborhoods surrounding the campus (which are often densely landscaped), screen views of the residences, and/or screen views of buildings on the UCLA campus. In addition, the reduction of the landscaped buffer between vehicular traffic and private residences (which border the campus in many areas) could increase traffic-related noise, air quality, and light and glare impacts (associated with headlights) on the adjacent residences.

The following mitigation options have also been identified for each intersection that could be impacted by implementation of the 2002 LRDP during the regular session.

Intersection No. 5—Sunset Boulevard and Veteran Avenue

ATCS has already been installed at the intersection of Sunset Boulevard and Veteran Avenue (as part of a larger installation along Sunset Boulevard from the San Diego Freeway eastward to Veteran Avenue), and is, therefore, not available to mitigate the impact of LRDP implementation at this intersection.

Therefore, physical modifications to improve the intersection capacity were evaluated. At its intersection with Veteran Avenue, Sunset Boulevard provides two lanes of traffic (westbound and eastbound) and a single left-turn lane in both directions (although the eastbound left-turn lane provides access to a private driveway). In conjunction with the environmental review of this and previous UCLA projects, four potential options for physical improvements have been identified:

- Widen the eastbound approach of Sunset Boulevard (west of Veteran Avenue) to provide a right-turn only lane
- Widen the north side of Sunset Boulevard (at Veteran Avenue) to provide room for installation of an eastbound right-turn lane (west of Veteran Avenue)
- Widen the northbound approach of Veteran Avenue (south of Sunset Boulevard) to provide a right-turn only lane
- Widen the south side of Sunset Boulevard (east of Veteran Avenue) to create a third eastbound traffic lane between Veteran Avenue and Bellagio Way

Widening Sunset Boulevard or Veteran Avenue would increase the intersection's capacity and thereby mitigate the potentially significant impact at this intersection. Widening Sunset Boulevard would require approval of the Los Angeles City Department of Transportation and would be within the jurisdiction of the City of Los Angeles, not the University, to implement.

To widen the eastbound approach of Sunset Boulevard (west of Veteran Avenue up to 200 feet, with a 60-foot transition—the typical size for a dedicated turn lane) would require relocation of the sidewalk and parkway approximately ten feet south, which would eliminate much of the landscaping that currently exists south of the sidewalk, along that stretch of Sunset Boulevard. Narrowing or eliminating the long-standing landscaped buffer that separates traffic on Sunset from the private residence(s) between Veteran

Avenue and Greenfield Avenue could increase traffic noise, air quality, and light and glare impacts (associated with headlights) for those residences.

Widening the north side of Sunset Boulevard (for a distance of up to 200 feet), to permit relocation of through traffic lanes to the north and provide adequate room on the south side of the roadway for an eastbound right turn lane, would require a retaining wall (along the north side of the street because of a grade change) both east and west of the intersection and require modification of one or more driveways that provide access to private residences along the north side of Sunset Boulevard. Widening the roadway and installation of a retaining wall would result in the loss of landscaping, modify the visual character of this stretch of roadway, and could increase traffic noise impacts (which could be reflected by a retaining wall).

Widening the northbound approach of Veteran Avenue (south of Sunset Boulevard) to provide a right-turn only lane would require relocation of the jogging path and parkway approximately ten feet west, which would require relocation of a portion of the fence surrounding the UCLA Child Care Center. As this fence is currently covered with vines and numerous trees have been planted east of the fence, relocation of the fence would result in the loss of the vine-covered fence and trees that provide a visual and noise buffer between the Child Care Center and Veteran Avenue. In addition, some existing trees in the parkway would be removed, resulting in the further reduction in the visual buffer (which screens views of the campus) along the east side of Veteran Avenue. Creation of a right-turn lane could also result in the loss of on-street parking along one of the few streets that provides unrestricted parking near UCLA. Thus, widening Veteran Avenue to install a right-turn lane and relocation of the fence would result in the loss of landscaping, mature trees, and on-street parking as well as result in an adverse visual impact.

On Sunset Boulevard, west of Bellagio Drive (the on-campus extension of Bellagio Way), an existing right-turn lane (approximately 200 feet long) accommodates eastbound traffic that is turning right (into the campus). Widening Sunset Boulevard, east of Veteran Avenue, would extend this lane for the entire distance between Veteran Avenue and Bellagio Drive and make it easier for vehicles to turn right onto Sunset Boulevard (which could then merge left into one of the two through lanes on Sunset). Currently, the parkway along the stretch of Sunset Boulevard consists of turf lawn, with a path of decomposed granite (part of the jogging path around the northwestern edge of campus), a small landscaped strip, and an ivy-covered fence, in that order, south of the parkway. Behind the fence is the play yard for the UCLA Child Care Center. Widening the street at this location would result in the loss of the parkway, which could not be replaced due to the lack of space between the street and the fence. Relocation of the fence (to permit relocation of the parkway) would result in a reduction in the play area for the Child Care Center. In addition, several utility vaults, a storm-drain catch basin, an electrical vault, and several utility lines are currently located in the parkway. Relocation of the utility vaults into the existing jogging path (the only available space between the widened street and the existing fence) could pose a safety hazard (e.g., tripping) to joggers and pedestrians. In addition, widening the street could result in increased noise, air quality, and light and glare impacts to the Child Care Center due to the increased proximity to vehicular traffic.

Since the identified physical modification options would result in the loss of landscaping, which may include mature trees, the removal of this landscaping would result in adverse visual quality impacts. The reduction of the landscaped buffer between the street and the adjacent land uses would increase traffic-related noise, air quality, and light and glare impacts on the adjacent land uses, including private residences. In addition, the loss of on-street parking would reduce the supply of unrestricted parking, which is very limited adjacent to the campus. Therefore, the University considers all of these measures infeasible. No other feasible mitigation measures have been identified to mitigate the potentially significant impact at this location.

Intersection No. 6—Sunset Boulevard and Bellagio Way

In conjunction with their approval of the Intramural Field Parking Structure project, The Regents adopted a mitigation measure (IFPS C-8.2) to extend the ATCS installation along Sunset Boulevard from Bellagio Way to the eastern intersection of Beverly Glen Boulevard and Sunset Boulevard. Thus, installation of ATCS at Sunset Boulevard and Bellagio Way is not available to mitigate the impact of LRDP implementation at this intersection.

In conjunction with their approval of the Intramural Field Parking Structure project, The Regents adopted a mitigation measure (IFPS C-8.3) for the intersection which includes (1) restriping Bellagio Road north of Sunset Boulevard to modify the two-lane southbound approach to include a left/through optional lane and a right/through optional lane; (2) widening the south side of Sunset Boulevard by two feet to the west of Bellagio Drive and by four feet to the east of Bellagio Drive to provide one left-turn lane and one left/through/right shared lane in the northbound direction; and (3) modification of the signal light to provide north/south opposed phasing. (This improvement was assumed to be completed for the purposes of the LRDP traffic study.) Thus, any potential mitigation for the impact of LRDP implementation would have to be an addition to the planned improvement described above.

To improve the intersection's capacity, additional through or dedicated turn lanes could be provided; although the provision of additional through lanes is considered infeasible, as installation of additional lanes would require widening along a substantial length of the roadway and, therefore, would remove landscaping and reduce the noise and visual buffer between the roadway and adjacent land uses, including private residences. Installation of dedicated turn lanes could be provided for (1) westbound Sunset for cars turning onto northbound Bellagio Way, (2) southbound Bellagio Way for cars turning onto Sunset Boulevard, and (3) northbound Bellagio Drive for cars turning onto eastbound Sunset. Each of these options would result in the removal of landscaping, and in some instances, mature trees, which would have an adverse visual/aesthetic impact and reduce visual and noise buffers between the roadway and the adjacent land uses. In addition, modifications on Bellagio Way (north of Sunset) or on the northern edge of Sunset could require relocation or modification of the Bel-Air west gate, which could result in adverse cultural resource impacts.

Since the identified physical modifications options would result in the loss of landscaping, which may include mature trees, the removal of this landscaping would result in adverse visual quality impacts. The reduction of the landscaped buffer between the street and the adjacent land uses would increase traffic-related noise, air quality, and light and glare impacts on the adjacent land uses, including private residents. Street widening could also result in adverse cultural resource impacts. Therefore, the University considers all of these measures infeasible. No other feasible mitigation measures have been identified to mitigate the potentially significant impact at this location.

Intersection No. 14—Montana Avenue and Levering Avenue

This intersection is currently STOP sign controlled; therefore, ATCS installation is not available as mitigation at this location. Signalization of this intersection would improve capacity and address the potentially significant impacts of LRDP implementation during the regular session. However, prior discussions with local community representatives have indicated opposition to the signalization of this intersection. In general, installation of a signal light has been opposed because of the visual quality impact, the change in the neighborhood character (as street lights are not typically associated with residential areas), and the potential noise impacts (e.g., tire squeal associated with rapid stops and starts or engine racing while waiting for the light to change). In accord with CEQA (PRC §21061.1) which defines feasibility as "...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors...," this mitigation measure is considered infeasible due to local community opposition.

Intersection No.15—Montana Avenue/Gayley Avenue and Veteran Avenue

This intersection is currently controlled by signal light. ATCS has not been installed, nor is it currently planned for installation at this location. Thus, installation of ATCS is available as mitigation at this location:

MM 4.13-1 *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Montana Avenue/Gayley Avenue and Veteran Avenue.*

With installation of ATCS at this intersection, the impact of LRDP implementation during the regular session would be mitigated to a less-than-significant level.

Beyond ATCS installation at this location, physical modification of the intersection could also be used to mitigate potential impacts. In conjunction with the environmental review of previous UCLA projects, one potential option for a physical improvement has been identified: widening of Gayley Avenue (east of Veteran Avenue) to create a dedicated right turn lane for westbound vehicles turning north onto Veteran Avenue. However, this measure has previously been identified as infeasible due to the presence of a utility vault, which would have to be relocated. The vault would either have to be relocated in the area occupied by the jogging path (which could pose a safety hazard to joggers and pedestrians) or the area currently occupied by landscaping and mature trees along the Gayley and Veteran boundaries of the Southern Regional Library facility. In addition, loss of on-street parking could occur, depending on the length of the turn lane.

Because the identified physical modification would result in the loss of landscaping, which may include mature trees, removal of this landscaping would result in adverse visual quality impacts, as the existing landscaping screens views of the Southern Regional Library Facility. The loss of on-street parking would reduce the supply of unrestricted parking, which is very limited adjacent to the campus. Therefore, the University considers this measure infeasible. Except for installation of ATCS, no other feasible mitigation measures have been identified to mitigate the potentially significant impact at this location.

Intersection No.36—Wilshire Boulevard and Veteran Avenue

In conjunction with their approval of the Southwest Campus Housing and Parking project, The Regents adopted a mitigation measure (SWH C-6.2) to fund ATCS installation at Wilshire Boulevard and Veteran Avenue. Thus, installation of ATCS is not available to mitigate the impact of LRDP implementation at this intersection.

Mitigation measure SWH C-6.2 also proposed widening the east side of Veteran Avenue (on University property) and restriping Veteran Avenue to create dual right-turn only lanes in the southbound direction for cars turning onto westbound Wilshire Boulevard. (This improvement was assumed to be completed for the purposes of the LRDP traffic study.) Thus, any potential mitigation for the LRDP impact would have to be in addition to the planned improvement described above. Because of the proximity of adjacent land uses to the intersection, including the Los Angeles National Cemetery (which is surrounded by a concrete and metal fence), the West Los Angeles Federal Building (which is surrounded by concrete bollards), and a private office building, and the presence of street trees along Wilshire Boulevard and Veteran Avenue, additional widening of Wilshire Boulevard (east and west of the intersection) or Veteran Avenue (south of Veteran Avenue, or on the west side of the roadway [north of Wilshire Boulevard]) is not considered feasible. Additional widening of the east side of Veteran Avenue (north of Wilshire Boulevard), on University property, may be possible; however, this would result in an additional offset of the north and south legs of the intersection, requiring vehicles to veer when crossing the intersection, which could pose a traffic hazard. No other feasible mitigation measures have been identified for this intersection.

Residual Impact

As no feasible mitigation measures are available to mitigate the impacts at four intersections, the impact of LRDP implementation during the regular session would remain significant and unavoidable at the following intersections:

5. Sunset Boulevard and Veteran Avenue (A.M. peak)
6. Sunset Boulevard and Bellagio Way (A.M. peak)
14. Montana Avenue and Levering Avenue (A.M. peak)
36. Wilshire Boulevard and Veteran Avenue (A.M. peak)

Implementation of MM 4.13-1 to install ATCS at the intersection of Montana Avenue/Gayley Avenue and Veteran Avenue would reduce the impact to a less-than-significant level. Thus, even with implementation of the identified mitigation measure, implementation of the 2002 LRDP would result in significant and unavoidable impacts during the regular session at four intersections during the A.M. peak hour.

However, because the City of Los Angeles may not elect to proceed with installation of ATCS at a single intersection, ATCS measure may not be available to mitigate the impact of LRDP implementation. No other feasible mitigation measures have been identified at this intersection; therefore, the impact of

LRDP implementation during the regular session at Montana Avenue/Gayley Avenue and Veteran Avenue could also remain significant and unavoidable.

Impact LRDP 4.13-2 **Implementation of the 2002 LRDP would result in additional vehicular trips during the twelve-week period of summer instruction, which would result in a substantial degradation in intersection levels of service. This is considered a *significant* impact.**

Implementation of the 2002 LRDP would result in an increase in student enrollment during the summer session compared to the 2000 baseline (as discussed in Section 4.0 [Introduction to the Analysis]), the employment of additional faculty and staff, and an increase in visitors to campus. The increase in campus population (described in Section 4.10 [Population and Housing]) would increase the demand for parking, and the utilization of additional parking spaces would generate additional vehicle trips compared to existing conditions. The increase in campus-related vehicle trip generation would increase traffic volumes on the local street and regional highway network, which could degrade intersection levels of service.

Future Trip Generation

For an estimate of future trip generation during the summer, the trip generation rates in Table 4.13-22 were used, which include summer-specific trip generation rates for students (which are lower than regular session due to the fewer number of students on campus). In addition, these rates assume that only 90 percent of faculty and staff would be on campus during the summer. Rates for other population groups and uses are conservatively assumed to be the same as the regular session. An estimate of future average daily trip generation during summer session is shown in Table 4.13-25 (Future Campus Trip Generation with 2002 LRDP—Summer Session).

As shown in Table 4.13-25, total future trip generation during the summer session would increase to approximately 123,937 average daily trips. This is an increase of approximately 15,612 average daily trips compared to trip generation during the summer of 2000, but still below the cap of 139,500 average daily trips established by the 1990 LRDP.

Table 4.13-25 Future Vehicle Trip Generation with 2002 LRDP—Summer Session

Permit Group	Number	Daily Trips	A.M. Peak Hour Trips	P.M. Peak Hour Trips
Faculty & Staff				
Health Sciences	6,159	8,337	1,052	1,079
General Campus	14,339	24,021	2,105	2,794
Resident Students				
Undergraduate	878	446	6	37
Graduate	716	686	65	72
Graduate Employed Off Campus[1]	1,284	4,302	360	514
Conference/Program Attendees	1,713	1,395	20	116
Commuter Students				
Academic Student Employee	2,401	2,914	203	356
Other Commuter Students	11,057	9,787	650	879
Other Permits				
Quarterly Guest/Emeritus	6,207	10,584	1,117	552
University Extension	5,336	9,099	0	0
Daily Permit Sales	7,109	21,677	1,251	1,095
Other Parking (e.g., meters)		3,931	85	328
Through Traffic/Drop Offs/Deliveries/ Two-Wheeled Vehicles[2]		22,042	1,345	1,169
Campus Shuttles		2,948	229	245
Main/Southwest Campus Total		*122,169*	*8,589*	*9,236*
Wilshire Center	950	1,768	155	206
Cordon Total		***123,937***	***8,744***	***9,442***

1. A portion of graduate student residents would not be enrolled or employed on campus during the summer. It is assumed they would be employed off campus.
2. Includes trips associated with deliveries, passenger drop-offs, sightseeing, and vehicles that use campus streets to travel to and from destinations in the surrounding community.

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

By adding the peak hour traffic volumes (associated with implementation of the 2002 LRDP during the summer) to the projected future "Without Project" traffic volumes (for the summer in the year 2011), total future summer traffic volumes that would occur with full implementation of the proposed 2002 LRDP, could be estimated. Using these estimated future traffic volumes, a Critical Movement Analysis was conducted to identify future Levels of Service for the year 2011 and identify the impacts associated with implementation of the 2002 LRDP. Summaries of the CMA and LOS "Without Project" and "With Proposed 2002 LRDP" conditions at the fifty-eight study intersections are shown in Table 4.13-26 (Critical Movement Analysis Summary, Existing and Future Conditions—Summer Session).

Table 4.13-26 Critical Movement Analysis Summary, Existing and Future Conditions—Summer Session

No.	Intersection	Peak Hour	Existing CMA	Existing LOS	Future Without Project CMA	Future Without Project LOS	Future With Project CMA	Future With Project LOS	Future With Project Impact
1	Church Lane/Ovada Place and Sepulveda Boulevard	A.M.	0.779	C	0.657	B	0.670	B	0.013
		P.M.	0.971	E	1.176	F	1.208	F	**0.032***
2	San Diego Fwy S/B On/Off Ramps and Church Lane	A.M.	0.973	E	0.642	B	0.658	B	0.016
		P.M.	1.193	F	0.723	C	0.734	C	0.011
3	Sunset Boulevard and Church Lane	A.M.	0.767	C	0.780	C	0.787	C	0.007
		P.M.	0.927	E	0.966	E	0.980	E	**0.014***
4	Sunset Boulevard and San Diego Fwy N/B On/Off-Ramps	A.M.	0.760	C	0.750	C	0.761	C	0.011
		P.M.	0.413	A	0.416	A	0.453	A	0.037
5	Sunset Boulevard and Veteran Avenue	A.M.	0.812	D	0.829	D	0.882	D	**0.053***
		P.M.	0.867	D	0.892	D	0.943	E	**0.051***
6	Sunset Boulevard and Bellagio Way	A.M.	0.939	E	0.885	D	0.939	E	**0.054***
		P.M.	1.042	F	1.066	F	1.122	F	**0.056***
7	Sunset Boulevard and Westwood Boulevard	A.M.	0.486	A	0.484	A	0.529	A	0.045
		P.M.	0.565	A	0.578	A	0.615	B	0.037
8	Sunset Boulevard and Stone Canyon Road	A.M.	0.395	A	0.390	A	0.405	A	0.015
		P.M.	0.582	A	0.591	A	0.618	B	0.027
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Rd.	A.M.	0.798	C	0.813	D	0.856	D	**0.043***
		P.M.	0.808	D	0.855	D	0.898	D	**0.043***
10	Sunset Boulevard and Beverly Glen Boulevard	A.M.	0.926	E	0.947	E	0.956	E	0.009
		P.M.	1.063	F	1.120	F	1.131	F	**0.011***
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard	A.M.	0.885	D	0.904	E	0.925	E	**0.021***
		P.M.	1.079	F	1.195	F	1.208	F	**0.013***
12	San Diego Fwy N/B Off-Ramp and Sepulveda Boulevard	A.M.	0.434	A	0.395	A	0.405	A	0.010
		P.M.	0.509	A	0.437	A	0.438	A	0.001
13	Montana Avenue and Sepulveda Boulevard	A.M.	0.668	B	0.777	C	0.804	D	**0.027***
		P.M.	0.850	D	0.832	D	0.855	D	**0.023***

Table 4.13-26 Critical Movement Analysis Summary, Existing and Future Conditions—Summer Session

No.	Intersection	Peak Hour	Existing		Future Without Project		Future With Project		
			CMA	LOS	CMA	LOS	CMA	LOS	Impact
14	Montana Avenue and Levering Avenue	A.M.	0.859	D	1.011	F	1.075	F	**0.064***
		P.M.	0.748	C	0.855	D	0.905	E	**0.050***
15	Montana Avenue/Gayley Avenue and Veteran Avenue	A.M.	0.778	C	0.855	D	0.933	E	**0.078***
		P.M.	0.969	E	1.053	F	1.125	F	**0.072***
16	Strathmore Place and Gayley Avenue	A.M.	0.623	B	0.658	B	0.727	C	**0.069***
		P.M.	0.466	A	0.532	A	0.574	A	0.042
17	Levering Avenue and Veteran Avenue	A.M.	0.489	A	0.537	A	0.548	A	0.011
		P.M.	0.633	B	0.741	C	0.749	C	0.008
18	Wyton Drive and Hilgard Avenue	A.M.	0.330	A	0.363	A	0.390	A	0.027
		P.M.	0.300	A	0.362	A	0.384	A	0.022
19	Wyton Drive/Comstock Ave. and Beverly Glen Blvd.	A.M.	0.609	B	0.648	B	0.658	B	0.010
		P.M.	0.751	C	0.798	C	0.804	D	0.006
20	Westholme Avenue and Hilgard Avenue	A.M.	0.390	A	0.435	A	0.468	A	0.033
		P.M.	0.404	A	0.478	A	0.519	A	0.041
21	Manning Avenue and Hilgard Avenue	A.M.	0.182	A	0.192	A	0.227	A	0.035
		P.M.	0.223	A	0.237	A	0.269	A	0.032
22	Le Conte Avenue and Gayley Avenue	A.M.	0.567	A	0.615	B	0.643	B	0.028
		P.M.	0.519	A	0.553	A	0.584	A	0.031
23	Le Conte Avenue and Westwood Boulevard	A.M.	0.559	A	0.606	B	0.649	B	0.043
		P.M.	0.553	A	0.626	B	0.667	B	0.041
24	Le Conte Avenue and Tiverton Drive	A.M.	0.311	A	0.367	A	0.400	A	0.033
		P.M.	0.299	A	0.363	A	0.382	A	0.019
25	Le Conte Avenue and Hilgard Avenue	A.M.	0.404	A	0.451	A	0.504	A	0.053
		P.M.	0.439	A	0.508	A	0.541	A	0.033
26	Weyburn Avenue and Gayley Avenue	A.M.	0.406	A	0.389	A	0.421	A	0.032
		P.M.	0.779	C	0.753	C	0.794	C	**0.041***

Table 4.13-26 Critical Movement Analysis Summary, Existing and Future Conditions—Summer Session

No.	Intersection	Peak Hour	Existing CMA	Existing LOS	Future Without Project CMA	Future Without Project LOS	Future With Project CMA	Future With Project LOS	Impact
27	Weyburn Avenue and Westwood Boulevard	A.M.	0.412	A	0.479	A	0.507	A	0.028
		P.M.	0.442	A	0.576	A	0.627	B	0.051
28	Weyburn Avenue and Tiverton Drive	A.M.	0.282	A	0.330	A	0.368	A	0.038
		P.M.	0.389	A	0.474	A	0.486	A	0.012
29	Weyburn Avenue and Hilgard Avenue	A.M.	0.328	A	0.345	A	0.370	A	0.025
		P.M.	0.493	A	0.603	B	0.640	B	0.037
30	Kinross Avenue and Westwood Boulevard	A.M.	0.429	A	0.666	B	0.698	B	0.032
		P.M.	0.560	A	0.817	D	0.863	D	**0.046***
31	Lindbrook Drive and Westwood Boulevard	A.M.	0.364	A	0.381	A	0.397	A	0.016
		P.M.	0.367	A	0.358	A	0.372	A	0.014
32	Lindbrook Drive and Tiverton Avenue	A.M.	0.294	A	0.316	A	0.342	A	0.026
		P.M.	0.311	A	0.337	A	0.360	A	0.023
33	Constitution Avenue and Sepulveda Boulevard	A.M.	0.376	A	0.329	A	0.333	A	0.004
		P.M.	0.531	A	0.532	A	0.537	A	0.005
34	Wilshire Boulevard and San Vicente Boulevard	A.M.	0.885	D	0.976	E	0.982	E	0.006
		P.M.	0.918	E	1.024	F	1.035	F	**0.011***
35	Wilshire Boulevard and Sepulveda Boulevard	A.M.	0.973	E	1.070	F	1.102	F	**0.032***
		P.M.	1.000	E	1.083	F	1.091	F	0.008
36	Wilshire Boulevard and Veteran Avenue	A.M.	0.847	D	0.945	E	0.990	E	**0.045***
		P.M.	1.292	F	1.191	F	1.248	F	**0.057***
37	Wilshire Boulevard and Gayley Avenue	A.M.	0.647	B	0.710	C	0.729	C	0.019
		P.M.	0.742	C	0.781	C	0.814	D	**0.033***
38	Wilshire Boulevard and Westwood Boulevard	A.M.	0.699	B	0.725	C	0.741	C	0.016
		P.M.	0.698	B	0.731	C	0.742	C	0.011
39	Wilshire Boulevard and Glendon Avenue	A.M.	0.621	B	0.660	B	0.684	B	0.024
		P.M.	0.721	C	0.792	C	0.802	D	0.010

Table 4.13-26 Critical Movement Analysis Summary, Existing and Future Conditions—Summer Session

No.	Intersection	Peak Hour	Existing CMA	Existing LOS	Future Without Project CMA	Future Without Project LOS	Future With Project CMA	Future With Project LOS	Future With Project Impact
40	Wilshire Boulevard and Malcolm Avenue	A.M.	0.634	B	0.707	C	0.709	C	0.002
		P.M.	0.824	D	0.919	E	0.932	E	**0.013***
41	Wilshire Boulevard and Westholme Avenue	A.M.	0.630	B	0.738	C	0.750	C	0.012
		P.M.	0.778	C	0.907	E	0.915	E	0.008
42	Wilshire Boulevard and Warner Avenue	A.M.	0.757	C	0.882	D	0.893	D	0.011
		P.M.	0.635	B	0.757	C	0.772	C	0.015
43	Wilshire Boulevard and Beverly Glen Boulevard	A.M.	0.703	C	0.799	C	0.811	D	0.012
		P.M.	0.818	D	0.945	E	0.961	E	**0.016***
44	Ohio Avenue and Sawtelle Boulevard	A.M.	0.861	D	0.909	E	0.916	E	0.007
		P.M.	0.875	D	0.923	E	0.926	E	0.003
45	Ohio Avenue and Sepulveda Boulevard	A.M.	0.815	D	0.945	E	0.959	E	**0.014***
		P.M.	0.965	E	1.051	F	1.059	F	0.008
46	Ohio Avenue and Veteran Avenue	A.M.	0.687	B	0.761	C	0.767	C	0.006
		P.M.	0.890	D	0.964	E	0.989	E	**0.025***
47	Ohio Avenue and Westwood Boulevard	A.M.	0.561	A	0.643	B	0.658	B	0.015
		P.M.	0.641	B	0.699	B	0.713	C	0.014
48	Santa Monica Boulevard and Sawtelle Boulevard	A.M.	0.838	D	0.884	D	0.891	D	0.007
		P.M.	0.886	D	0.936	E	0.942	E	0.006
49	Santa Monica Boulevard and San Diego Fwy (S/B ramp)	A.M.	0.870	D	0.959	E	0.959	E	0.000
		P.M.	0.667	B	0.705	C	0.706	C	0.001
50	Santa Monica Boulevard and San Diego Fwy (N/B ramp)	A.M.	0.783	C	0.826	D	0.834	D	0.008
		P.M.	0.737	C	0.805	D	0.809	D	0.004
51	Santa Monica Boulevard and Sepulveda Boulevard	A.M.	0.901	E	1.035	F	1.037	F	0.002
		P.M.	0.871	D	1.014	F	1.015	F	0.001
52	Santa Monica Boulevard and Veteran Avenue	A.M.	0.729	C	0.806	D	0.817	D	0.011
		P.M.	0.873	D	1.009	F	1.026	F	**0.017***

Table 4.13-26 Critical Movement Analysis Summary, Existing and Future Conditions—Summer Session

No.	Intersection	Peak Hour	Existing		Future Without Project		Future With Project		
			CMA	LOS	CMA	LOS	CMA	LOS	Impact
53	Santa Monica Boulevard and Westwood Boulevard	A.M.	0.771	C	0.860	D	0.876	D	0.016
		P.M.	0.841	D	0.950	E	0.961	E	**0.011***
54	Roscomare Road and Mulholland Dr	A.M.	1.195	F	1.257	F	1.258	F	0.001
		P.M.	0.715	C	0.751	C	0.752	C	0.001
55	Roscomare Road and Stradella Rd/Linda Flora Drive	A.M.	0.498	A	0.524	A	0.526	A	0.002
		P.M.	0.444	A	0.467	A	0.467	A	0.000
56	Chalon Road and Bellagio Road	A.M.	0.523	A	0.588	A	0.600	A	0.012
		P.M.	0.501	A	0.527	A	0.543	A	0.016
57	Beverly Glen Blvd and Mulholland Dr	A.M.	1.026	F	1.079	F	1.090	F	**0.011***
		P.M.	1.048	F	1.102	F	1.107	F	0.005
58	Beverly Glen Blvd and Greendale Dr	A.M.	0.812	D	0.853	D	0.877	D	**0.024***
		P.M.	0.811	D	0.853	D	0.858	D	0.005

* Indicates a significant impact

Regular Session traffic counts of existing traffic conditions were used for intersections No. 42 and 54 through 58.

Source: UCLA LRDP Transportation Systems Analysis, Crain & Associates, October 2002

As summarized in Table 4.13-26, with projected future traffic conditions, based on the identified significance criteria, implementation of the 2002 LRDP would significantly impact four intersections in the A.M. peak hour, eleven intersections in the P.M. peak hour, and ten intersections in both the A.M. and P.M. peak hours during the twelve-week summer session—a time when traffic conditions are generally better than during the regular session because traffic volumes are lower, as indicated by lower CMA values and/or levels of service (LOS). (Note: Of the 25 significantly impacted locations, 5 of the 25 would also be significantly impacted during the regular session, as previously described above under impact 4.13-1.) The significantly impacted intersections during the twelve-week summer session are listed below:

1. Church Lane/Ovada Place and Sepulveda Boulevard (P.M. peak)
3. Sunset Boulevard and Church Lane (P.M. peak)
5. Sunset Boulevard and Veteran Avenue (A.M. and P.M. peak)
6. Sunset Boulevard and Bellagio Way (A.M. and P.M. peak)
9. Sunset Boulevard and Hilgard Avenue/Copa De Oro Road (A.M. and P.M. peak)
10. Sunset Boulevard and Beverly Glen Boulevard/Bel Air Road (P.M. peak)
11. Sunset Boulevard (East I/S) and Beverly Glen Boulevard (A.M. and P.M. peak)
13. Montana Avenue and Sepulveda Boulevard (A.M. and P.M. peak)
14. Montana Avenue and Levering Avenue (A.M. and P.M. peak)
15. Montana Avenue/Gayley Avenue and Veteran Avenue (A.M. and P.M. peak)
16. Strathmore Place and Gayley Avenue (A.M. peak)
26. Weyburn Avenue and Gayley Avenue (P.M. peak)
30. Kinross Avenue and Westwood Boulevard (P.M. peak)
34. Wilshire Boulevard and San Vicente Boulevard (P.M. peak)
35. Wilshire Boulevard and Sepulveda Boulevard (A.M. Peak)
36. Wilshire Boulevard and Veteran Avenue (A.M. and P.M. peak)
37. Wilshire Boulevard and Gayley Avenue (P.M. peak)
40. Wilshire Boulevard and Malcolm Avenue (P.M. peak)
43. Wilshire Boulevard and Beverly Glen Boulevard (P.M. peak)
45. Ohio Avenue and Sepulveda Boulevard (A.M. peak)
46. Ohio Avenue and Veteran Avenue (P.M. peak)
52. Santa Monica Boulevard (North) and Veteran Avenue (P.M. peak)
53. Santa Monica Boulevard (North) and Westwood Boulevard (P.M. peak)
57. Beverly Glen Boulevard and Mulholland Drive (A.M. peak)
58. Beverly Glen Boulevard and Greendale Drive (A.M. peak)

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.13-1(a) — *The campus shall continue to maintain the 1990 LRDP vehicle trip cap of 139,500 average daily trips.*

PP 4.13-1(b) — *The campus shall continue to maintain the 1990 LRDP parking cap of 25,169 spaces.*

PP 4.13-1(c) — *The campus shall continue to provide on-campus housing to continue the evolution of UCLA from a commuter to a residential campus.*

PP 4.13-1(d) — *The campus shall continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective.* (This is identical to Air Quality PP 4.2-1(b) and Noise and Vibration PP 4.9-5(b).)

In addition, to further reduce parking demand and trip generation during the summer session, the following mitigation measure will also be implemented to expand distribution of TDM information to summer session students, many of whom are not regularly enrolled students:

MM 4.13-2(a) — *The TDM program will be extended through the student registration process to provide information concerning alternative transportation options to summer session students to increase awareness of, and participation in, alternative transportation programs during the summer session.* (This is identical to Air Quality MM 4.2-4 and Noise and Vibration MM 4.9-6.)

MM 4.13-2(c) — *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Strathmore Place and Gayley Avenue.*

Although traffic volumes are lower during the summer, to determine the feasibility of mitigating impacts at intersections that would be impacted during the summer, various mitigation options were identified. These include installation of ATCS, which was described under Impact 4.13-1 above. Because the potential impacts associated with the implementation of the 2002 LRDP during the summer session would occur at a limited number of intersections, the City of Los Angeles may not be willing to upgrade selected intersections and, instead, defer the upgrade until such time as the City can fund a comprehensive installation of ATCS in the Westwood area.

Physical modifications, including restriping and widening, have also been evaluated. These modifications include those mitigation options identified in conjunction with the environmental review of previous projects, which were listed under Impact 4.13-1 above. At some locations, it may be possible to restripe the existing roadway to create a dedicated turn lane, and no street widening would be required. Restriping may not be possible on some roadways because it would result in substandard lane widths. At those locations, roadway widening may be possible within the existing right-of-way, including flaring (a minor widening of lanes near an intersection) or installation of a new turn lane (up to 200 feet in length). At some locations, the roadways are fully improved within the existing right-of-way, and, therefore, widening would require acquisition of land by the City of Los Angeles, which is beyond the jurisdiction of The Regents to implement. Because widening would typically result in the loss of landscaping and/or mature trees and this reduction of the landscaped buffer between vehicular traffic and private residences could increase traffic-related noise, air quality, and light and glare impacts (associated with headlights) on adjacent residences, street widening is generally opposed by the local community.

Mitigation options for each intersection are described below.

Intersection No. 1—Church Lane/Ovada Place and Sepulveda Boulevard

ATCS has already been installed at this intersection and is, therefore, not available to mitigate the impact of LRDP implementation at this intersection. In addition, the City of Los Angeles is planning to implement a reversible lane within the center median of Sepulveda Boulevard. Due to the proximity of Sepulveda Boulevard to the San Diego Freeway, widening of Sepulveda Boulevard is not feasible. In addition, because Church Lane utilizes the entire roadway passing underneath the San Diego Freeway, widening of that roadway is not feasible. No other feasible mitigation measures have been identified for this intersection.

Intersection No. 3—Sunset Boulevard and Church Lane

ATCS has already been installed at this intersection and is, therefore, not available to mitigate the impact of LRDP implementation at this intersection. Both Sunset Boulevard and Church Lane are already striped to take full advantage of the existing roadways, including the San Diego Freeway overpass. No other feasible mitigation measures have been identified for this intersection.

Intersection No. 5—Sunset Boulevard and Veteran Avenue

Refer to the discussion under Impact 4.13-1, above, for a discussion of the potential for mitigation at this intersection. No feasible mitigation measures have been identified for this intersection.

Intersection No. 6—Sunset Boulevard and Bellagio Way

Refer to the discussion under Impact 4.13-1, above, for a discussion of the potential for mitigation at this intersection. In conjunction with the approval of the Intramural Field Parking Structure project, The Regents adopted mitigation measures to extend ATCS to this intersection, restripe and widen the roadways, and modify the signal timing to permit opposed phasing (and those improvements were assumed to be completed for the LRDP traffic analysis). No other feasible mitigation measures have been identified to address the 2002 LRDP traffic impacts at this location.

Intersection No. 9—Sunset Boulevard and Hilgard Avenue/Copa De Oro Road

In conjunction with their approval of the Intramural Field Parking Structure project, The Regents adopted a mitigation measure (Intramural Field Parking Structure [IFPS] C-8.2) to extend the ATCS installation along Sunset Boulevard from Bellagio Way to eastern intersection of Beverly Glen Boulevard and Sunset Boulevard. Thus, installation of ATCS at Sunset Boulevard and Hilgard Avenue/Copa De Oro Road is not available to mitigate the impact of LRDP implementation at this intersection.

In conjunction with the environmental analysis of previous projects, the University has considered improving this intersection by (1) restriping Copa De Oro to create a separate left/through and right turn lanes, (2) widening Copa De Oro immediately north of the intersection to provide two southbound approach lanes, or (3) widening Sunset Boulevard west of Hilgard Avenue to create a right-turn lane for eastbound traffic turning onto Hilgard Avenue. The Los Angeles Department of Transportation previously rejected the first measure, because, without widening the roadway, restriping would result in substandard lane widths. To overcome that objection, the second measure to widen the roadway was identified; however, this option would result in the removal of landscaping along one or both sides of the roadway. The third measure, to widen Sunset Boulevard to install a right-turn lane onto Hilgard, would result in the removal of several mature trees located adjacent to the roadway.

Because widening would result in the loss of landscaping and/or mature trees, the removal of landscaping would result in adverse visual quality impacts. The reduction of the landscaped buffer between the street and the adjacent land uses would increase traffic-related noise, air quality, and light and glare impacts on the adjacent land uses, including private residents. The removal of mature trees would change the visual character of the area and reduce the visual screening of buildings on the campus, including Parking Structure 3. Therefore, the University considers all of these measures infeasible. No other feasible mitigation measures have been identified to mitigate the potentially significant impact at this location.

Intersection No. 10—Sunset Boulevard and Beverly Glen Boulevard/Bel Air Road

ATCS installation at this intersection is already planned, in accordance with the adopted Intramural Field Parking Structure mitigation measure (IFPS C-8.2). Thus, installation of ATCS at Sunset Boulevard and Beverly Glen Boulevard/Bel Air Road is not available to mitigate the impact of LRDP implementation at this intersection. Physical modification of the intersection to improve capacity would mitigate potential impacts; however, this intersection is fully improved within the existing right-of-way, and, therefore, restriping is not possible. Widening to install dedicated turn lanes or additional through lanes would require acquisition of land by the City of Los Angeles, and, therefore, is beyond the jurisdiction of The Regents to implement. Because widening would result in the loss of landscaping and/or mature trees, could impede access to the Los Angeles Fire Department Station (No. 71), which is located at the southeastern corner of the intersection, and would likely be opposed by the local community, widening beyond the existing right-of-way is considered infeasible. No other feasible mitigation options have been identified for this intersection.

Intersection No. 11—Sunset Boulevard (East I/S) and Beverly Glen Boulevard

ATCS installation at this intersection is already planned, in accordance with the adopted Intramural Field Parking Structure mitigation measure (IFPS C-8.2). Thus, installation of ATCS at Sunset Boulevard (east intersection) and Beverly Glen Boulevard is not available to mitigate the impact of LRDP implementation at this intersection. Both roadways are already improved to their full width and fully utilized; therefore, restriping is not possible. Widening to install dedicated turn lanes or additional through lanes would require acquisition of land by the City of Los Angeles, and, therefore, is beyond the jurisdiction of The Regents to implement. Because widening would result in the loss of landscaping and/or mature trees and would likely be opposed by the local community, widening beyond the existing right-of-way is considered infeasible. No other feasible mitigation measures have been identified for this intersection.

Intersection No. 13—Montana Avenue and Sepulveda Boulevard

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

2002 LRDP MM 4.13-2(b) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Montana Avenue and Sepulveda Boulevard.*

With installation of ATCS at this intersection, the impact of LRDP implementation during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection could also be used to mitigate potential impacts. A peak hour reversible lane is proposed to be installed on Sepulveda Boulevard by the Los Angeles Department of Transportation, and, thus, is not available to mitigate the impact of the 2002 LRDP during the summer session. Widening of either roadway to install dedicated turn lanes or additional through lanes is not considered feasible due to Montana Avenue's utilization of the entire roadway passing underneath the San Diego Freeway and the proximity of Sepulveda Boulevard to the San Diego Freeway (to the west) or the potential loss of parkway landscaping (on the east)—which would increase traffic-related noise, air quality, and light and glare impacts on the adjacent land uses, including private residences. No other feasible mitigation measures have been identified for this intersection.

Intersection No. 14—Montana Avenue and Levering Avenue

This intersection is currently STOP sign controlled. Refer to the discussion under Impact 4.13-1, above, for a discussion of potential mitigation options at this intersection. No feasible mitigation measures have been identified for this intersection.

Intersection No. 15—Montana Avenue/Gayley Avenue and Veteran Avenue

Refer to the discussion under Impact 4.13-1, above, for a discussion of potential mitigation options at this intersection. MM 4.13-1 would provide for ATCS installation at this intersection; this would mitigate the impact of LRDP implementation during the regular session and would reduce, but not eliminate, the potentially significant impact during the summer session. No other feasible mitigation options have been identified for this intersection.

Intersection No. 16—Strathmore Place and Gayley Avenue

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(c) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Strathmore Place and Gayley Avenue.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection could also be used to mitigate potential impacts. In conjunction with their approval of the Westwood Replacement Project, The Regents adopted a mitigation measure (Academic Health Center and Facilities Reconstruction Plan [AHC] C-7) to restripe Gayley Avenue to create a dedicated northbound right turn lane (for vehicle turning onto Strathmore Place) and a right

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turn/through lane. This modification will result in the removal of on-street parking to accommodate the dedicated turn lane. Provision of additional dedicated lanes would require restriping or widening, which would result in the loss of parkway landscaping and could result in the loss of on-street parking. Further physical modification (beyond the previously adopted mitigation measure for this intersection) would result in the loss of landscaping, which may include mature trees. The reduction of the landscaped buffer would increase traffic-related noise, air quality, and light and glare impacts on the adjacent land uses, including multi-family residences. The loss of on-street parking would reduce the supply of unrestricted parking, which is very limited adjacent to the campus. Therefore the University considers this measure infeasible. No other feasible mitigation measures have been identified at this location.

Intersection No. 26—Weyburn Avenue and Gayley Avenue

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(d)	*The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Weyburn Avenue and Gayley Avenue.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection could also be used to mitigate potential impacts. Restriping of the intersection to provide additional lanes would result in the loss of on-street parking in Westwood Village. Because of the limited supply of daytime parking in Westwood Village, merchants have previously expressed opposition to roadway improvements that result in the loss of street parking. Therefore, because of the loss of on-street parking, this measure is considered infeasible. No other feasible mitigation options have been identified for this intersection.

Intersection No. 30—Kinross Avenue and Westwood Boulevard

This intersection is currently controlled by a signal light, and ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(e)	*The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Kinross Avenue and Westwood Boulevard.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection could also be used to mitigate potential impacts. Restriping or physical modification of the intersection to provide additional lanes would result in the loss of on-street parking in Westwood Village, the loss of landscaped medians, or a reduction in pedestrian sidewalk widths. Because of the limited supply of daytime parking in Westwood Village, merchants have previously expressed opposition to roadway improvements that result in the loss of street parking. Loss of landscaping or reduction in sidewalk widths could impede pedestrian circulation, and result in adverse visual quality impacts. This would not be consistent with efforts to improve the visual character of Westwood Village. Therefore, improvement of this intersection is considered infeasible. No other feasible mitigation options have been identified for this intersection.

Intersection No. 34—Wilshire Boulevard and San Vicente Boulevard

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(f)	*The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Wilshire Boulevard and San Vicente Boulevard.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection could also mitigate potential impact; however, this intersection is fully improved within the existing right-of-way, and, therefore, restriping is not possible. Widening would require acquisition of additional land (by the City of Los Angeles) and is therefore, considered infeasible. No other feasible mitigation options have been identified for this intersection.

Intersection No. 35—Wilshire Boulevard and Sepulveda Boulevard

In conjunction with their approval of the Southwest Campus Housing and Parking (SWH) project, The Regents adopted a mitigation measure (SWH C-6.3) to fund ATCS installation at Wilshire Boulevard and Sepulveda Boulevard. Thus, installation of ATCS is not available to mitigate the impact of LRDP implementation at this intersection.

Physical modification of the intersection to improve capacity could also mitigate potential impacts; however, this intersection is fully improved within the existing right-of-way, and, therefore, restriping is not possible. Widening is not possible, because the roadways under the San Diego Freeway underpasses (including the on- and off-ramps) are fully utilized. No feasible mitigation options have been identified for this intersection.

Intersection No. 36—Wilshire Boulevard and Veteran Avenue

Refer to the discussion under Impact 4.13-1, above, for a discussion of the potential for mitigation at this intersection. No feasible mitigation measures have been identified for this intersection.

Intersection No. 37—Wilshire Boulevard and Gayley Avenue

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(g) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Wilshire Boulevard and Gayley Avenue.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection could also mitigate potential impacts; however, this intersection is fully improved within the existing right-of-way, and, therefore, restriping is not possible. Widening would require acquisition of land by the City of Los Angeles and is likely not feasible due to the proximity of office or retail uses adjacent to the roadways. No other feasible mitigation options have been identified for this intersection.

Intersection No. 40—Wilshire Boulevard and Malcolm Avenue

This intersection is currently STOP-sign controlled. Therefore, ATCS installation is not available as mitigation at this location. Malcolm Avenue could be restriped to provide northbound and southbound right-turn lanes, which would increase the capacity of the intersection.

MM 4.13-2(h) *The campus shall provide fair share funding to the City of Los Angeles for restriping of Malcolm Avenue at the intersection of Wilshire Boulevard to provide dedicated northbound and southbound right-turn lanes.*

With installation of this mitigation measure, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level. Although this measure would result in the loss of up to 15 on-street parking spaces, this is not considered an adverse impact, because ample on-street parking is available in the adjacent single-family neighborhood. No other feasible mitigation measures have been identified at this location.

Intersection No. 43—Wilshire Boulevard and Beverly Glen Boulevard

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(i) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Wilshire Boulevard and Beverly Glen Boulevard.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection to improve capacity could also mitigate potential impacts; however, this intersection is fully improved within the existing right-of-way, and, therefore, restriping is not possible. Widening would also require acquisition of additional land (by the City of Los Angeles), which would result in the loss of landscaping. This could result in increased noise, air quality, and light and glare impacts on adjacent land uses and is, therefore, considered infeasible. No other feasible mitigation options have been identified for this intersection.

Intersection No. 45—Ohio Avenue and Sepulveda Boulevard

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(j) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Ohio Avenue and Sepulveda Boulevard.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection to improve capacity would mitigate potential impacts; however, this intersection is fully improved within the existing right-of-way, and, therefore, restriping is not possible. Widening would require acquisition of additional land (by the City of Los Angeles). This would result in the loss of street trees in the parkway and is, therefore, considered infeasible. No other feasible mitigation options have been identified for this intersection.

Intersection No. 46—Ohio Avenue and Veteran Avenue

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(k) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Ohio Avenue and Veteran Avenue.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection to improve capacity would mitigate potential impacts. As an alternative to ATCS, Veteran Avenue could be restriped to provide northbound and southbound right-turn lanes, which would increase the capacity of the intersection.

MM 4.13-2(l) *If the City of Los Angeles elects not to install ATCS at the intersection of Ohio Avenue and Veteran Avenue, the campus shall provide fair share funding to the City of Los Angeles for restriping of Veteran Avenue at the intersection of Ohio Avenue to provide dedicated northbound and southbound right-turn lanes.*

With installation of this mitigation measure, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level. Although this measure would result in the loss of up to 15 on-street parking spaces, this is not considered an adverse impact, because many of the adjacent multi-family residences typically provide guest parking. No other feasible mitigation measures have been identified at this location.

Intersection No. 52—Santa Monica Boulevard (North) and Veteran Avenue

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(m) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Santa Monica Boulevard (North) and Veteran Avenue.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection to improve capacity would mitigate potential impacts; however, the Santa Monica Boulevard Transitway project would make all feasible improvements to this intersection. No other feasible mitigation measures have been identified for this intersection.

Intersection No. 53—Santa Monica Boulevard (North) and Westwood Boulevard

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

MM 4.13-2(n) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Santa Monica Boulevard (North) and Westwood Boulevard.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection to improve capacity would mitigate potential impacts, however; the Santa Monica Boulevard Transitway project (which will begin construction in 2003 and was assumed to be completed for the purposes of this traffic study) would make all feasible improvements to this intersection. No other feasible mitigation measures have been identified for this intersection.

Intersection No. 57—Beverly Glen Boulevard and Mulholland Drive

The City of Los Angeles has no current plans to install ATCS along Mulholland Highway and, given the distance between this intersection and the next adjacent ATCS installation, it is unlikely that the City would proceed with installation at a single intersection. Thus, installation of ATCS is not available as mitigation at this location.

Physical improvements could improve intersection capacity; however, both roadways at this intersection currently utilize the available roadways and have already been flared along the approach to the intersection. Widening or further flaring of the roadways is not considered feasible due to grade changes adjacent to the roadway and the potential loss of landscaping along this stretch of Mulholland (a designated scenic highway). No feasible mitigation measures have been identified for this intersection.

Intersection No. 58—Beverly Glen Boulevard and Greendale Drive

ATCS has not been installed, nor is currently planned for installation, at this location. Thus, installation of ATCS is available as mitigation at this location.

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MM 4.13-2(o) *The campus shall provide fair share funding to the City of Los Angeles for installation of ATCS at the intersection of Beverly Glen Boulevard and Greendale Drive.*

With installation of ATCS at this intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level.

Physical modification of the intersection to improve capacity could also mitigate potential impacts. As an alternative to ATCS, the west side of Beverly Glen Boulevard could be restriped to provide southbound left-turn and through lanes, which would increase the capacity of the intersection.

MM 4.13-2(p) *If the City of Los Angeles elects not to install ATCS at the intersection of Beverly Glen Boulevard and Greendale Drive, the campus shall provide fair share funding for restriping the west side of Beverly Glen Boulevard by the City of Los Angeles to provide dedicated northbound and southbound right-turn lanes.*

With installation of this mitigation measure, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level. Although this measure would result in the loss of up to 8 on-street parking spaces, this is not considered an adverse impact, because ample on-street parking is available in the the adjacent single-family neighborhood. No other feasible mitigation measures have been identified at this location.

Residual Impacts

Installation of ATCS has been identified as mitigation (of potentially significant impacts during the peak hours noted below) at the following 12 intersections:

13. Montana Avenue and Sepulveda Boulevard (A.M. and P.M. peak)
16. Strathmore Place and Gayley Avenue (A.M. peak)
26. Weyburn Avenue and Gayley Avenue (P.M. peak)
30. Kinross Avenue and Westwood Boulevard (P.M. peak)
34. Wilshire Boulevard and San Vicente Boulevard (P.M. peak)
37. Wilshire Boulevard and Gayley Avenue (P.M. peak)
43. Wilshire Boulevard and Beverly Glen Boulevard (P.M. peak)
45. Ohio Avenue and Sepulveda Boulevard (A.M. peak)
46. Ohio Avenue and Veteran Avenue (P.M. peak)
52. Santa Monica Boulevard (North) and Veteran Avenue (P.M. peak)
53. Santa Monica Boulevard (North) and Westwood Boulevard (P.M. peak)
58. Beverly Glen Boulevard and Greendale Drive (A.M. peak)

In addition, restriping has been identified at the following intersection

40. Wilshire Boulevard and Malcolm Avenue (P.M. peak)

With installation of ATCS at 12 intersections and the proposed restriping at one additional intersection, the impact of implementation of the 2002 LRDP during the summer session would be mitigated to a less-than-significant level at all 13 intersections.

No feasible mitigation measures are available at the following 12 intersections:

1. Church Lane/Ovada Place and Sepulveda Boulevard (P.M. peak)
3. Sunset Boulevard and Church Lane (P.M. peak)
5. Sunset Boulevard and Veteran Avenue (A.M. and P.M. peak)
6. Sunset Boulevard and Bellagio Way (A.M. and P.M. peak)
9. Sunset Boulevard and Hilgard Avenue/Copa De Oro Road (A.M. and P.M. peak)
10. Sunset Boulevard and Beverly Glen Boulevard/Bel Air Road (A.M. and P.M. peak)
11. Sunset Boulevard (East I/S) and Beverly Glen Boulevard (A.M. and P.M. peak)
14. Montana Avenue and Levering Avenue (A.M. and P.M. peak)
15. Montana Avenue/Gayley Avenue and Veteran Avenue (A.M. and P.M. peak)
36. Wilshire Boulevard and Veteran Avenue (A.M. and P.M. peak)
37. Wilshire Boulevard and Gayley Avenue (P.M. peak)
57. Beverly Glen Boulevard and Mulholland Drive (A.M. peak)

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Therefore, the impact of implementation of the 2002 LRDP during the summer session would remain significant and unavoidable at 12 intersections (during the peak hours noted above).

As noted above under Impact 4.13-1, the Los Angeles Department of Transportation has indicated a preference for installation of ATCS at 51 intersections in the Westwood area. Because installation of ATCS is proposed as mitigation for the 2002 LRDP at 13 intersections (including six locations which are not on the list of 51 intersections identified by LADOT), the City of Los Angeles may not be willing to upgrade only 12 intersections, and instead defer the upgrade until such time as the City can fund a comprehensive installation of ATCS in the Westwood area. Because installation of the ATCS is beyond the jurisdiction of The Regents to implement, ATCS may not be available to mitigate the impacts of implementation of the 2002 LRDP during the summer session at those intersections.

As an alternative to ATCS, physical improvements have been identified at two intersections:

46. Ohio Avenue and Veteran Avenue
58. Beverly Glen Boulevard and Greendale Drive

With implementation of the proposed restriping, the impact of 2002 LRDP implementation would be mitigated to a less-than-significant level at the above two intersections. No other feasible mitigation measures have been identified for the other 10 intersections (which could be mitigated with ATCS installation).

In addition, restriping was also proposed at one intersection:

40. Wilshire Boulevard and Malcolm Avenue (P.M. peak)

With implementation of the proposed restriping, the impact of LRDP implementation would be mitigated to a less-than-significant level at that intersection. With implementation of the proposed restriping (but without installation of ATCS) the impact of the LRDP could remain significant and unavoidable at 22 intersections during the summer session.

Because restriping at the three intersections identified above would result in the loss of on-street parking, the City of Los Angeles may not elect to implement the proposed improvements. No other feasible mitigation measures have been identified for these three intersections.

Because installation of ATCS and other physical improvement are beyond the jurisdiction of The Regents to implement, even with continued maintenance of the vehicle trip and parking space caps, development of on-campus housing, and continued implementation of the campus TDM program, the impacts of the LRDP implementation during summer session could remain significant and unavoidable at all 25 intersections during the summer session, when traffic volumes (prior to mitigation) are approximately 3.7 percent lower than during the regular session, as shown in the Table 4.13-27 (Comparison of Future With Project Traffic Conditions at Selected Intersections).

Table 4.13-27 Comparison of Future With Project Traffic Conditions at Selected Intersections[1]

No.	Intersection	Peak Hour	CMA Values			
			Regular Session	Summer Session	Change	Percent Lower[2]
1	Church Lane/Ovada Place and Sepulveda Boulevard	A.M.	0.808	0.670	-0.138	-17.1%
		P.M.	1.160	1.208	0.048	4.1%
3	Sunset Boulevard and Church Lane	A.M.	0.902	0.787	-0.115	-12.7%
		P.M.	0.844	0.980	0.136	16.1%
5	Sunset Boulevard and Veteran Avenue	A.M.	0.925	0.882	-0.043	-4.6%
		P.M.	0.845	0.943	0.098	11.6%
6	Sunset Boulevard and Bellagio Way	A.M.	0.982	0.939	-0.043	-4.4%
		P.M.	1.067	1.122	0.055	5.2%

Table 4.13-27 Comparison of Future With Project Traffic Conditions at Selected Intersections[1]

No.	Intersection	Peak Hour	CMA Values: Regular Session	Summer Session	Change	Percent Lower[2]
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Road	A.M.	0.859	0.856	-0.003	-0.3%
		P.M.	0.905	0.898	-0.007	-0.8%
10	Sunset Boulevard and Beverly Glen Boulevard	A.M.	1.028	0.956	-0.072	-7.0%
		P.M.	1.125	1.131	0.006	0.5%
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard	A.M.	1.071	0.925	-0.146	-13.6%
		P.M.	1.205	1.208	0.003	0.2%
13	Montana Avenue and Sepulveda Boulevard	A.M.	1.086	0.804	-0.282	-26.0%
		P.M.	0.876	0.855	-0.021	-2.4%
14	Montana Avenue and Levering Avenue	A.M.	1.202	1.075	-0.127	-10.6%
		P.M.	0.961	0.905	-0.056	-5.8%
15	Montana Avenue/Gayley Avenue and Veteran Avenue	A.M.	0.970	0.933	-0.037	-3.8%
		P.M.	1.091	1.125	0.034	3.1%
16	Strathmore Place and Gayley Avenue	A.M.	0.751	0.727	-0.024	-3.2%
		P.M.	0.715	0.574	-0.141	-19.7%
26	Weyburn Avenue and Gayley Avenue	A.M.	0.414	0.421	0.007	1.7%
		P.M.	0.663	0.794	0.131	19.8%
30	Kinross Avenue and Westwood Boulevard	A.M.	0.645	0.698	0.053	8.2%
		P.M.	1.009	0.863	-0.146	-14.5%
34	Wilshire Boulevard and San Vicente Boulevard	A.M.	1.109	0.982	-0.127	-11.5%
		P.M.	1.270	1.035	-0.235	-18.5%
35	Wilshire Boulevard and Sepulveda Boulevard	A.M.	1.165	1.102	-0.063	-5.4%
		P.M.	1.152	1.091	-0.061	-5.3%
36	Wilshire Boulevard and Veteran Avenue	A.M.	0.987	0.990	0.003	0.3%
		P.M.	1.248	1.248	0.000	0.0%
37	Wilshire Boulevard and Gayley Avenue	A.M.	0.761	0.729	-0.032	-4.2%
		P.M.	0.834	0.814	-0.020	-2.4%
40	Wilshire Boulevard and Malcolm Avenue	A.M.	0.692	0.709	0.017	2.5%
		P.M.	0.857	0.932	0.075	8.8%
43	Wilshire Boulevard and Beverly Glen Boulevard	A.M.	0.963	0.811	-0.152	-15.8%
		P.M.	0.983	0.961	-0.022	-2.2%
45	Ohio Avenue and Sepulveda Boulevard	A.M.	1.169	0.959	-0.210	-18.0%
		P.M.	1.033	1.059	0.026	2.5%
46	Ohio Avenue and Veteran Avenue	A.M.	0.909	0.767	-0.142	-15.6%
		P.M.	1.071	0.989	-0.082	-7.7%
52	Santa Monica Boulevard (North) and Veteran Avenue	A.M.	0.971	0.817	-0.154	-15.9%
		P.M.	1.056	1.026	-0.030	-2.8%

Table 4.13-27 Comparison of Future With Project Traffic Conditions at Selected Intersections[1]

No.	Intersection	Peak Hour	CMA Values			
			Regular Session	Summer Session	Change	Percent Lower[2]
53	Santa Monica Boulevard and Westwood Boulevard	A.M.	0.908	0.876	-0.032	-3.5%
		P.M.	0.964	0.961	-0.003	-0.3%
57	Beverly Glen Boulevard and Mulholland Drive	A.M.	1.081	1.090	0.009	0.8%
		P.M.	1.102	1.107	0.005	0.5%
58	Beverly Glen Boulevard and Greendale Drive	A.M.	0.858	0.877	0.019	2.2%
		P.M.	0.853	0.858	0.005	0.6%
	Average Change					**-3.7%**

1. Intersections where potentially significant impacts would occur during the summer session.
2. As represented by the change in CMA values as a percentage of regular session traffic.

Source: UCLA LRDP Transportation Systems Analysis, Crain & Associates, October 2002

With implementation of the LRDP and without implementation of the identified mitigation measures, traffic conditions would be better in the summer than the regular session (as demonstrated by average CMA values that would be approximately 3.7 percent lower during the summer session). Nevertheless, the impact of implementation of the 2002 LRDP would remain significant and unavoidable at up to 25 intersections during the summer session.

Impact LRDP 4.13-3 **The 2002 LRDP construction would result in the generation of construction-related vehicle trips, which would impact traffic conditions along roadway segments and at individual intersections. This is considered a *significant* impact.**

Implementation of the 2002 LRDP could result in the construction of up to 1.71 million gsf of additional buildings and facilities on the campus during the LRDP planning horizon. Construction of buildings and facilities could involve demolition of existing structures and removal of construction debris, grading and/or excavation of the site (for building foundation or below grade levels) and associated export of earth materials, as well as delivery of construction materials and trips associated with construction workers. In general, construction of individual buildings during the LRDP planning horizon is not anticipated to result in substantial construction-related trip volumes, except for those facilities that could involve substantial excavation and export of earth materials, which could result in periods of heavy truck traffic that could negatively affect road segments and intersections in the vicinity of the project.

Several projects are currently under construction on the campus, or are soon to begin construction, including the Intramural Field Parking Structure, the Westwood Replacement Hospital, and the Southwest Campus Housing and Parking project. As described in the EIRs for the Intramural Field

Parking Structure and the Southwest Campus Housing and Parking project, the overlap of those (and other ongoing) projects could result in significant and unavoidable traffic impacts at some intersections (including Wilshire Boulevard and Veteran Avenue) due to the utilization of Wilshire as the primary haul route to project sites.

Future construction projects (implemented under the 2002 LRDP) could overlap with current construction projects and create the potential for overall campus-related construction traffic that could result in localized impacts, as previously analyzed and disclosed in prior EIRs. As existing projects are completed, the construction-related traffic impacts associated with those projects would cease; however, as new projects are approved and implemented, additional construction-related trips could result in impacts at individual intersections in proximity to construction sites or along the designated haul routes used for export or delivery of construction materials. Because of the constrained nature of access to and from the campus (due to the presence of residential streets, the Los Angeles National Cemetery, the Santa Monica Mountains, and Westwood Village) as a practical matter, two roadways, (Wilshire and Sunset Boulevards) provide the primary access route for construction vehicles. Because the LRDP does not include specific projects (beyond the NHIP analyzed in Volume 2 of this EIR), it would be speculative to identify which specific roadway segments or intersections could be affected by future construction projects. However, as a conservative assumption, it is assumed that the net effect of campus construction activities could result in localized traffic impacts in the vicinity of the campus, including the Wilshire and Sunset Boulevard intersections that provide north/south access to the campus, including Veteran Avenue.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.13-3 *UCLA Capital Programs will assess construction schedules of major projects to determine the potential for overlapping construction activities to result in periods of heavy construction vehicle traffic on individual roadway segments, and adjust construction schedules, work hours, or access routes to the extent feasible to reduce construction-related traffic congestion.*

Although coordination of major construction projects would minimize construction traffic impacts to the extent feasible, due to the uncertainty of construction schedules, material deliveries, and the potential for lane closures or other access restrictions, construction traffic impacts are expected to remain significant and unavoidable. No feasible mitigation is available.

Threshold	Would the project exceed, either individually or cumulatively, a level of service standard established by the County Congestion Management Agency for designated roads or highways?

Impact LRDP 4.13-4 **Implementation of the 2002 LRDP would result in additional vehicular traffic volumes, but would not exceed established service levels on roadways designated by the Los Angeles Congestion Management Program. This is considered a *less-than-significant* impact.**

The Land Use Analysis program of the Congestion Management Program (CMP) provides decision-makers with the project-specific traffic impacts created by large projects on the CMP highway network. In order to analyze the impact of the 2002 LRDP on the regional transportation system (e.g., the freeway network), the results of the computerized transportation model were examined. Similar to the forecast performed for the surface street study intersections, the freeway volumes in year 2011 were determined. The future year 2011 freeway volumes for both regular and summer sessions are provided in Table 4.13-28 (Future [2011] Freeway Volumes and Levels of Service—Regular Session) and Table 4.13-29 (Future [2011] Freeway Volumes and Levels of Service—Summer Session), respectively. The CMP defines regional project impacts as significant if the demand/capacity (D/C) ratio increases by 0.020 (two percent) or more and the final (With Project) LOS is F. Although all of the analyzed freeway segments would be operating at LOS E or F in one or both peak hours, the San Diego Freeway (I-405) and the Santa Monica Freeway (I-10) would not experience an increase in traffic volumes of two percent or greater, and, therefore, the impact of implementation of the proposed 2002 LRDP would be less than significant on the regional highway network. No mitigation is required.

Table 4.13-28 Future (2011) Freeway Volumes and Levels of Service—Regular Session

No.	Location	Dir.	Peak Hour	No. Lanes	Freeway Capacity	Daily Volume	Peak Hr Volume	D/C	LOS	Impact
1	San Diego Freeway (I-405) South of Santa Monica Freeway	N/B	A.M.	5	10,000	322,900	13,089	1.309	F(1)	0.002
			P.M.	5	10,000		11,761	1.176	F(0)	0.000
		S/B	A.M.	5	10,000		7,832	0.783	D	0.000
			P.M.	5	10,000		10,955	1.096	F(0)	0.001
2	San Diego Freeway (I-405) between Santa Monica Freeway & Santa Monica Boulevard	N/B	A.M.	5	10,000	329,500	8,704	0.870	D	0.003
			P.M.	5	10,000		11,933	1.193	F(0)	0.000
		S/B	A.M.	5	10,000		12,524	1.252	F(1)	0.000
			P.M.	5	10,000		11,119	1.112	F(0)	0.001
3	San Diego Freeway (I-405) between Wilshire Boulevard & Santa Monica Boulevard	N/B	A.M.	6	12,000	307,200	8,145	0.679	C	0.003
			P.M.	6	12,000		11,864	0.989	E	0.001
		S/B	A.M.	6	12,000		11,714	0.976	E	0.000
			P.M.	6	12,000		9,709	0.809	D	0.001

Table 4.13-28 Future (2011) Freeway Volumes and Levels of Service—Regular Session

No.	Location	Dir.	Peak Hour	No. Lanes	Freeway Capacity	Daily Volume	Peak Hr Volume	D/C	LOS	Impact
4	San Diego Freeway (I-405) between Sunset Boulevard & Wilshire Boulevard	N/B	A.M.	5	10,000	278,300	7,333	0.733	C	0.001
			P.M.	5	10,000		12,553	1.255	F(1)	0.000
		S/B	A.M.	5	10,000		10,555	1.056	F(0)	0.001
			P.M.	5	10,000		6,874	0.687	C	0.000
5	San Diego Freeway (I-405) North of Sunset Boulevard	N/B	A.M.	5	10,000	276,200	7,203	0.621	C	0.000
			P.M.	5	10,000		12,347	1.064	F(0)	0.000
		S/B	A.M.	4	9,600		10,408	1.084	F(0)	0.002
			P.M.	4	9,600		6,771	0.705	C	0.000
6	Santa Monica Freeway (I-10) between Bundy Drive & San Diego Freeway	W/B	A.M.	5	10,000	268,700	7,971	0.797	D	0.000
			P.M.	5	10,000		10,342	1.034	F(0)	0.000
		E/B	A.M.	5	10,000		10,586	1.059	F(0)	0.001
			P.M.	5	10,000		9,831	0.983	E	0.000
7	Santa Monica Freeway (I-10) between Overland Avenue & National Boulevard	W/B	A.M.	4	10,000	281,500	7,800	0.780	D	0.001
			P.M.	4	10,000		7,931	0.793	D	0.000
		E/B	A.M.	5	8,000		8,812	1.102	F(0)	0.001
			P.M.	5	8,000		10,123	1.265	F(1)	0.000

LOS designations based on criteria detailed in Appendix D to the traffic technical report (provided in Appendix 4 of this document).

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Table 4.13-29 Future (2011) Freeway Volumes and Levels of Service—Summer Session

No.	Location	Dir.	Peak Hour	No. Lanes	Freeway Capacity	Daily Volume	Peak Hr Volume	D/C	LOS	Impact
1	San Diego Freeway (I-405) south of Santa Monica Freeway	N/B	A.M.	5	10,000	324,100	13,154	1.315	F(1)	0.008
			P.M.	5	10,000		11,780	1.178	F(0)	0.002
		S/B	A.M.	5	10,000		7,840	0.784	D	0.001
			P.M.	5	10,000		11,021	1.102	F(0)	0.007
2	San Diego Freeway (I-405) between Santa Monica Freeway & Santa Monica Boulevard	N/B	A.M.	5	10,000	331,600	8,823	0.882	D	0.015
			P.M.	5	10,000		11,974	1.197	F(0)	0.004
		S/B	A.M.	5	10,000		12,539	1.254	F(1)	0.002
			P.M.	5	10,000		11,234	1.123	F(0)	0.012
3	San Diego Freeway (I-405) between Wilshire Boulevard & Santa Monica Boulevard	N/B	A.M.	6	12,000	309,400	8,270	0.689	C	0.013
			P.M.	6	12,000		11,908	0.992	E	0.004
		S/B	A.M.	6	12,000		11,729	0.977	E	0.001
			P.M.	6	12,000		9,825	0.819	D	0.011
4	San Diego Freeway (I-405) between Sunset Boulevard & Wilshire Boulevard	N/B	A.M.	5	10,000	279,400	7,381	0.738	C	0.006
			P.M.	5	10,000		12,584	1.258	F(1)	0.003
		S/B	A.M.	5	10,000		10,572	1.057	F(0)	0.002
			P.M.	5	10,000		6,925	0.693	C	0.006

Table 4.13-29 Future (2011) Freeway Volumes and Levels of Service—Summer Session

No.	Location	Dir.	Peak Hour	No. Lanes	Freeway Capacity	Daily Volume	Peak Hr Volume	D/C	LOS	Impact
5	San Diego Freeway (I-405) North of Sunset Boulevard	N/B	A.M. P.M.	5 5	10,000 10,000	277,500	7,212 12,430	0.622 1.072	C F(0)	0.001 0.008
		S/B	A.M. P.M.	4 4	9,600 9,600		10,474 6,789	1.091 0.707	F(0) C	0.009 0.002
6	Santa Monica Freeway (I-10) between Bundy Dr. & San Diego Freeway	W/B	A.M. P.M.	5 5	10,000 10,000	269,000	7,974 10,365	0.797 1.037	D F(0)	0.000 0.003
		E/B	A.M. P.M.	5 5	10,000 10,000		10,607 9,838	1.061 0.984	F(0) E	0.003 0.001
7	Santa Monica Freeway (I-10) between Overland Ave. & National Boulevard	W/B	A.M. P.M.	4 4	10,000 10,000	282,300	7,836 7,946	0.784 0.795	D D	0.005 0.002
		E/B	A.M. P.M.	5 5	8,000 8,000		8,818 10,161	1.102 1.270	F(0) F(1)	0.001 0.005

LOS designations based on criteria detailed in Appendix D to the traffic technical report (provided in Appendix 4 of this document).

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Threshold	Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact LRDP 4.13-5 **Implementation of the 2002 LRDP would not substantially increase hazards due to design features or incompatible uses. This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP would result in an increase in student enrollment, the employment of additional faculty and staff, and an increase in visitors to campus. As the 2002 LRDP is implemented, new buildings and parking facilities would be constructed, subject to the limitations on available building space and the parking cap. It is anticipated that the development of new buildings and parking facilities would not result in the need for any new roadway segments (except to provide access to parking facilities) or any substantive changes in existing roadway configurations. As individual projects are proposed and implemented, design development would include the use of standard engineering practices (e.g., use of standard road and driveway widths, provision of adequate sight lines, and avoidance of sharp turning radii) to avoid design elements that could result in hazards due to features such as sharp curves or dangerous intersections.

The 2002 LRDP proposes to accommodate enrollment growth and academic program requirements within the existing boundaries of the UCLA campus and within the building space capacity remaining in the 1990 LRDP. The campus is divided into eight land use zones that serve as organizing land use elements. Each of these land use zones contains uses specific to that zone. For example, the Northwest zone consists of residential and supporting recreational uses, while the Core Campus zone contains a majority of the academic and research buildings on campus. The Health Sciences zone contains a new teaching and research hospital (currently under construction), the existing medical center, and other healthcare-related buildings. Under the 2002 LRDP, the campus would maintain the eight existing land use zones and would continue to develop uses in each of the zones that are compatible with the existing uses. A key planning objective in the 2002 LRDP states that all new building projects are sited in established land use zones to ensure compatibility with existing use to the extent feasible. Thus, traffic hazards related to land use incompatibilities resulting from implementation of the 2002 LRDP would be less than significant. No mitigation is required.

Impact LRDP 4.13-6 **The 2002 LRDP construction would not substantially increase vehicular hazards due to closure of traffic lanes or roadway segments. This is considered a *less-than-significant* impact.**

Construction activities during implementation of the 2002 LRDP could result in temporary closure of traffic lanes or roadway segments to permit the delivery of construction materials or to provide adequate site access. The reduction of roadway capacity, the narrowing of traffic lanes, and the occasional interruption of traffic flow on streets could pose hazards to vehicular traffic due to localized traffic congestion, decreased turning radii, or the condition of roadway surfaces.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.13-6 *To the extent feasible, the campus shall maintain at least one unobstructed lane in both directions on campus roadways. At any time only a single lane is available, the campus shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway segment, the campus shall provide appropriate signage indicating alternative routes.* (This is identical to Hazards and Hazardous Materials PP 4.6-8(a).)

Following PP 4.13-6 would ensure that impacts associated with construction-related traffic lane or roadway closures would remain less than significant by either maintaining at least one lane of travel on affected roadways during construction activities and/or by providing appropriate signage for alternative routes. No mitigation is required.

Impact LRDP 4.13-7 **The 2002 LRDP construction would not substantially increase pedestrian hazards due to closure of sidewalks or paths. This is considered a *less-than-significant* impact.**

Construction activities during implementation of the 2002 LRDP could result in temporary closure of on-campus pedestrian sidewalks and paths or the provision of temporary pedestrian routes. The arrival or departure of construction vehicles and delivery of construction materials could intermittently disrupt pedestrian travel along pedestrian routes adjacent to construction sites.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.13-7 *For any construction-related closure of pedestrian routes, the campus shall provide appropriate signage indicating alternative route and provide curb cuts and street crossings to assure alternate routes are accessible.*

Following PP 4.13-7 would ensure that impacts associated with construction-related pedestrian sidewalk or path closures would remain less than significant by providing appropriate signage for alternative pedestrian routes. No mitigation is required.

Threshold	Would the project result in inadequate emergency access?

Impact LRDP 4.13-8 **Implementation of the 2002 LRDP would not result in inadequate emergency access. This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP would result in an increase in student enrollment, the employment of additional faculty and staff, and an increase in visitors to campus. The increase in campus population would increase the demand for parking, and the utilization of additional parking spaces would generate additional vehicle trips compared to existing conditions. The increase in campus-related vehicle trip generation would increase traffic volumes on the local street and regional highway network, which could degrade intersection levels of service. With implementation of the 2002 LRDP, the campus would generate approximately 131,150 average daily trips during the regular session (as shown in Table 4.13-23), an increase of approximately 1,327 daily trips (compared to the future "Without Project" trip generation detailed in Table 4.13-18). As discussed above under Impact 4.13-1, this increase in vehicle trips would result in significant impacts at five of the 58 study intersections during the regular session. Feasible mitigation has been identified to reduce these impacts to a less-than-significant level at one of the five intersections. Implementation of the 2002 LRDP would increase trip generation to 123,937 average daily trips during the summer session (as shown in Table 4.13-25), an increase of approximately 10,394 daily trips (compared to the future "Without Project" conditions provided in Table 4.13-19). This increase in trip generation would result in significant impacts at twenty-five of the 58 study intersections during the summer session. With implementation of the identified mitigation measures, impacts would be reduced to less-than-significant levels at all but 13 intersections. However, those impacts would occur at times when traffic volumes are 3.7 percent lower than during the regular session. In addition, implementation of the 2002 LRDP will not restrict access to the campus. Thus, implementation of the 2002 LRDP would not result in a substantive increase in traffic volumes that would impede the ability of emergency vehicles to provide emergency police, fire, or medical services, and a less-than-significant impact would occur. In addition, as described above under Impact 4.13-4, implementation of the 2002 LRDP would not result in hazards due to design features or land use incompatibilities, which could impair emergency access. A less-than-significant impact would occur, and no mitigation is required.

Impact LRDP 4.13-9 **The 2002 LRDP construction would not result in inadequate emergency access. This is considered a *less-than-significant* impact.**

Construction activities during implementation of the 2002 LRDP could result in temporary closure of traffic lanes or roadway segments, which could impair emergency access during the closure.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.13-9 *To ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, UCLA shall consult with the UCPD, EH&S, and the LAFD to disclose temporary lane or roadway closures and alternative travel routes.* (This is identical to Hazards and Hazardous Materials PP 4.6-8(b).)

Following PP 4.13-9 would ensure that impacts associated with construction-related lane or roadway closures on emergency access would remain less than significant by facilitating emergency access when there are temporary lane or roadway closures. No mitigation is required.

Threshold	Would the project result in inadequate parking capacity?

Impact LRDP 4.13-10 Implementation of the 2002 LRDP would not result in inadequate parking capacity during the regular session. This is considered a *less-than-significant* impact.

Implementation of the 2002 LRDP would result in an increase in student enrollment, the employment of additional faculty and staff, and an increase in visitors to campus. The increase in campus population would result in an increase in the demand for parking, which would be accommodated through strategic allocation of campus parking spaces and through continuing implementation of UCLA's TDM Program. In addition, implementation of the LRDP will reduce the commuter student population through the development of on-campus housing. As a result, the 2002 LRDP will not result in an inadequate supply, or capacity, of parking.

Similar to most university campuses located in urban areas, UCLA is a popular educational and cultural destination. Visitors to UCLA arrive on campus through a variety of means, including personal motor vehicles as well as alternative transportation. Because the use of a motor vehicle is often the preferred choice of transportation, especially in Southern California, destinations such as UCLA are often perceived to have an inadequate supply of parking when those individuals who would prefer to arrive by motor vehicle find it difficult to locate a parking space upon demand. However, for planning purposes, the University believes that it is not appropriate to evaluate the adequacy of on-campus parking in terms of whether every potential motorist who desires a parking space can readily obtain one. Instead, good planning practice dictates that the University consider whether the supply of on-campus parking, when considered in conjunction with other available means of transportation, is adequate to serve the needs of campus students, faculty, staff, and visitors while simultaneously promoting the goal of reducing traffic in the area.

The 1990 LRDP established a limit on parking (25,169 spaces) to reduce the generation of vehicle trips. The limit, or "cap," on on-campus parking spaces was intended to satisfy the parking needs of campus students, faculty, employees, and visitors while maximizing the University's goals of promoting alternative methods of transportation consistent with the campus' TDM program, which includes van pools, ride-sharing incentives, shuttles, and other transportation modes and incentives. Recognizing the local and regional need to reduce reliance on the automobile, UCLA continues to strive to reduce the need for on-campus parking through the implementation of these and other measures. As discussed in the Transportation Systems Analysis, UCLA's TDM program is highly effective in reducing reliance upon the automobile—out of the current total of 45,529 commuters to campus, approximately 21,662 (47 percent) utilize alternative modes to travel to and from campus. The combination of on-campus parking and the wide variety of available alternative transportation methods and programs continues to make UCLA accessible to all campus students, faculty, employees, and visitors.

UCLA currently maintains an on-campus parking space inventory of 22,330 spaces (including 1,310 stack spaces). Upon the completion of the Westwood Replacement Hospital, the Southwest Campus Housing and Parking, and the Intramural Field Parking Structure projects (which have been previously approved and/or are under construction and would add approximately 3,552 spaces), and the reduction of stack parking to approximately 597 spaces, the inventory would be maintained at or below the 25,169-space limit adopted in the 1990 LRDP. As required by PP 4.13-1(b), the parking space cap would be maintained under the 2002 LRDP.

Use of parking spaces at UCLA is controlled through a permit system. Employees (who work more than 49 percent time) are eligible to purchase a parking permit. A number of spaces are allocated to university guests, emeritus faculty, vendors, medical center patients, and other visitors (through both quarterly and daily permit sales). A number of student permits are also allocated based on institutional priorities to students with disabilities, highly recruited scholars, scholarship athletes, and teaching and research assistants. Additional spaces are allocated to resident students. The remainder of on-campus parking spaces is available to commuter students, which are allocated based on a priority point system.

As shown in Table 4.13-20, the supply of parking allocated to faculty, staff, resident students and academic student employees would increase to accommodate projected demand, based upon current permit demand rates and the estimated increase in those population groups (as shown in Tables 4.10-3 and 4.10-8).

Parking for campus visitors (i.e., everyone except enrolled students, faculty and staff) is generally accommodated through the sale of daily parking permits, and under the 2002 LRDP, the supply of parking available to meet visitor demand would be increased. As shown in Table 4.10-3, the current campus population includes approximately 10,588 daily campus "visitors" a group of individuals that includes health sciences clinical and affiliated faculty, patients, visitors, and volunteers; daytime University Extension and special program students; pre-school and elementary school children; other campus visitors and volunteers; vendors; and construction workers. With implementation of the 2002

LRDP, the number of daily visitors is projected to increase by 1,447 individuals, to a total of 12,035 (see Table 4.10-7).[28]

As shown in Table 4.13-6, currently 2,196 spaces are allocated for daily parking permits, which accommodates the sale of approximately 6,155 daily permits (to meet the parking demand from an estimated 10,558 "other individuals"). An additional 4,875 evening and weekend permits provide parking for University Extension and other special program participants. Thus, approximately 11,030 parking permits are currently provided to accommodate demand from visitors and extension students.

As shown in Table 4.13-20, the future number of spaces allocated to daily permit sales would increase to 2,461 spaces, which would accommodate the sale of approximately 7,109 daily parking permits to meet the parking demand from an estimated 12,035 "other individuals". Sale of an additional 5,336 evening, and weekend permits is also projected. Thus, a total of 12,445 daily, evening, and weekend parking permits are projected with implementation of the 2002 LRDP. With an increase of approximately 1,415 daytime, evening and weekend permits over current conditions, the estimated future supply of visitor parking would be adequate to meet projected demand associated with implementation of the 2002 LRDP.

The remaining portion of the on-campus parking inventory is allocated to commuter students on a space-available basis and governed by a need-based point system. Students with off-campus jobs or other special circumstances are given higher priority to purchase parking permits. Those students most able to use other modes of transportation, such as those that live close to campus, are given the lowest priority.

As described in the Transportation Systems Analysis, trip generation for commuter students will vary with the available supply of student parking. If more parking spaces become available for student use, trip generation by commuter students would increase. Similarly, if the number of available parking spaces is reduced, commuter student trip generation will decline, as such students take increasing advantage of alternative transportation modes to campus. In adopting the parking space cap of 25,169 spaces as part of the 1990 LRDP, the University recognized the relationship between parking space supply and trip generation. The parking space cap was established as a considered balance between the need to accommodate vehicle trips to campus and the benefits of reducing campus trip generation by creating wider use and acceptance of the various components of the TDM Program. As described by the *CEQA Air Quality Handbook* published by the South Coast Air Quality Management District, a reduction in

[28] Tables 4.10-3 and 4.10-7 define this group of campus visitors as "other individuals" to distinguish this segment of the campus population from enrolled students, faculty and staff.

air quality impacts from vehicle trips is achieved by constricting the availability of parking spaces through limiting supply and implementing a pricing structure for parking, because such measures increase the attractiveness of alternative means of transportation. The TDM Program, in addition to reducing congestion on surface streets and improving air quality, also has positive effects on noise and other environmental impacts associated with vehicle use.

The University has found that even students with low priority for obtaining a parking permit often prefer to use a motor vehicle to arrive at campus rather than utilizing the available means of alternative transportation, and, thus, these students submit an application for a parking permit. This results in a student waiting list for parking. The student waiting list for parking varies from year to year, based upon student enrollment, the on-campus parking inventory, and parking demand from faculty, staff, visitors, and other population groups. The Fall 2001 waiting list was approximately 3,000 students, a decrease from the Fall 1999 waiting list of approximately 3,970 students. Historically, the waiting list is greatest in the fall and generally declines through the winter and into spring.

In addition, as discussed above with respect to Impact 4.13-1, development of the Northwest Housing Infill Project (NHIP), proposed as part of the 2002 LRDP, will reduce the number of students commuting to campus by increasing the amount of available on-campus housing. This will reduce the number of vehicle trips associated with commuter students, as well as the related demand for on-campus parking. As discussed in Section 4.10 (Population and Housing) development of the NHIP is an important component of UCLA's continuing evolution from a commuter to a residential campus. With the completion of the NHIP, approximately 58 percent of UCLA students would reside in university-owned housing or within walking distance of the campus (see Table 4.10-10).

UCLA will continue to implement the campus TDM Program, and parking would continue to be provided to faculty, staff, visitors, and other population groups. The 2002 LRDP will further reduce trip generation and parking demand from the commuter student population through the development of additional on-campus housing. As a result, implementation of the 2002 LRDP would not result in an inadequate parking capacity, and this impact is less-than significant. No mitigation is required.

Impact LRDP 4.13-11 **Implementation of the 2002 LRDP would not result in inadequate parking capacity during the summer session. This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP would result in an increase in student enrollment during the summer session, the employment of additional faculty and staff, and an increase in visitors to campus. The increase in campus population would result in an increase in the demand for parking, which would be accommodated during the regular session through strategic allocation of campus parking spaces and continued implementation of UCLA's TDM Program.

Although summer vacations, off-campus research, and sabbaticals may reduce the campus population during the summer, as a conservative assumption, the allocation of parking spaces during the summer would be the same as during the regular session. During the summer session, demand for parking by faculty, staff, and visitors would continue to be accommodated at levels that are consistent with regular session allocations (which are depicted in depicted in Table 4.13-20). Since the supply of parking in the summer for faculty, staff and visitors would be the same as during regular session, implementation of the 2002 LRDP will not result in an inadequate supply, or capacity, of parking during the summer for those population groups.

Student enrollment in the summer is anticipated to increase from an average weekday population of approximately 8,979 persons (in the Summer of 2000) to an estimated 12,751 students (in 2010–11, as discussed in Section 4.10 [Population and Housing]), an increase of approximately 3,772 students. As discussed under Impact 4.13-2, MM 4.13-2(a) shall be implemented to expand notification of campus TDM programs to summer session students through the registration process.

In addition to enrolled students, up to 2,000 graduate students that reside in the Southwest Campus project are also anticipated to be on campus during the summer. Parking for those students would be provided within the Southwest Campus Housing and Parking complex, and some of these graduate student residents may be enrolled during summer session.)

The supply of parking allocated to students during the regular session can be used to determine availability during the summer session. As shown in Table 4.13.20, during the regular session, slightly over 6,100 spaces will be available to meet the demand for approximately 32,445 students (not including the 2,000 graduate student residents of Southwest Campus, who will be allocated 1,917 spaces). As discussed under Impact 4.13-10, the supply of parking would be adequate to meet student demand during the regular session.

With more than 6,100 spaces available, and a projected average weekday student population of 12,751 students in the summer, implementation of the 2002 LRDP would not result in an inadequate parking capacity during the summer, and this impact is less-than significant. No mitigation is required.

Impact LRDP 4.13-12 The 2002 LRDP construction could result in temporary elimination of on-campus parking spaces and could require additional temporary parking for construction workers. This is considered a *potentially significant* impact.

During the 2002 LRDP planning horizon, construction of new structures could result in elimination of parking spaces in existing parking lots and/or structures to provide access to the construction site or space for staging of construction materials. In addition, construction employees would contribute to parking demand. Typically, very few on-site parking spaces are available for construction employees due to site constraints. Thus, parking for construction employees has historically been provided within existing on-campus parking facilities, with typical demand estimated at between 300 to 525 spaces per day over the past decade. As current construction projects are completed (e.g., Intramural Field Parking Structure, Men's Gym Seismic Renovation) those spaces currently allocated for construction employees would become available to accommodate the demand for future construction projects. However, at times, the combined effect of construction worker parking demand and the loss of parking spaces (for construction site access or material storage) could result in a net increase in construction-related parking demand that exceeds the historical average or available supply.

The following mitigation measure will ensure that impacts associated with parking for construction workers will be reduced to a less-than-significant level:

MM 4.13-12 *To the extent that construction worker parking demand exceeds historical levels or available supply, off-site construction worker parking shall be provided with shuttle service to the remote parking location.*

Implementation of MM 4.13-12 would reduce the impact of construction activities on parking supply to a less-than-significant level.

Threshold	Would the project conflict with adopted programs, practices, or procedures supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Impact LRDP 4.13-13 Implementation of the 2002 LRDP would not conflict with adopted policies, plans, or programs supporting alternative transportation. This is considered a *less-than-significant* impact.

As discussed above in the Environmental Setting section, the UCLA TDM program is a comprehensive program that offers a broad range of services to encourage and assist UCLA commuters in utilizing alternatives to the single-occupancy vehicle. As part of its on-going TDM program, UCLA actively provides and promotes: vanpools; carpool matching and parking incentive programs; financial incentives for carpool and vanpool participants; accommodation of the use of other modes of transit, including bicycles, motorcycles, and scooters; alternative work schedules and telecommuting; annual distribution of the UCLA Commuter's Guide; parking control management; and restricting access to main campus parking facilities for on-campus housing residents. As a result, UCLA has one of the most comprehensive TDM programs in the country with the largest vanpool program of any public or private university. The UCLA campus is also served by eighteen bus lines operated by six public transit operators. Since 1990, when the SCAQMD first required a survey of all employees to determine Average Vehicle Ridership (AVR),[29] the TDM program increased the campuswide AVR from 1.26 to 1.51 by Spring 2000, exceeding the goal of 1.5 set by the SCAQMD.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.13-1(d) *The campus shall continue to implement a TDM program that meets or exceeds all trip reduction and AVR requirements of the SCAQMD. The TDM program may be subject to modification as new technologies are developed or alternate program elements are found to be more effective.* (This is identical to Air Quality PP 4.2-1(b) and Noise and Vibration 4.9-5(b).)

Continued implementation of the TDM program is necessary to ensure that reductions in parking demand that have been achieved to date are maintained throughout the 2002 LRDP planning horizon.

In addition, as noted above for Impact LRDP 4.13-2, to further reduce parking demand and trip generation and encourage use of alternative transportation modes during the summer session, the following mitigation measure will also be implemented to expand distribution of TDM information to summer session students, many of whom are not regularly enrolled students.

MM 4.13-2(a) *The TDM program will be extended through the student registration process to provide information concerning alternative transportation options to summer session students to increase awareness of, and participation in, alternative transportation programs during the summer session.* (This is identical to Air Quality MM 4.2-4 and Noise and Vibration MM 4.9-6.)

In addition to the components of the campus TDM program, which are required pursuant to PP 4.9-5(b), the campus has implemented a Student Housing Master Plan (SHMP) that provides for the continuing development of on-campus student housing to enhance the educational experience for

[29] The AVR is the ratio of employees arriving between 6 A.M. and 10 A.M. to the motor vehicles they drive to campus.

students and continue the evolution of UCLA from a commuter to a residential campus, which would reduce vehicle trips by commuter students and encourage use of alternative transportation modes (including bicycles, campus shuttles, and walking to campus). The following campus program, practice, and procedure related to on-campus housing shall be continued throughout the 2002 LRDP planning horizon:

PP 4.13-1(c) *The campus shall continue to provide on-campus housing to continue the evolution of UCLA from a commuter to a residential campus.* (This is identical to Air Quality PP 4.2-1(a) and Noise and Vibration PP 4.9-5(a).)

Therefore, following PP 4.13-1(c) and PP 4.13-1(d) and implementing MM 4.13-2(a) would ensure that impacts associated with compliance with adopted programs, practices, and procedures supporting alternative transportation (during either the regular or summer session) remain less than significant.

Impact LRDP 4.13-14 Implementation of the 2002 LRDP would not increase demand for public transit during the regular session. This is considered a *less-than-significant* impact.

As shown in Table 4.13-30 (Current and Future Commuters), there are currently about 45,529 persons that are employed on campus or are nonresident students at UCLA. In 2001, 23,917 parking permits were issued to those persons; that indicates that about half of those persons commute to UCLA in an automobile. The remainder (21,662 "Other Commuters") either do not request or do not receive a parking permit, and, therefore, must utilize an alternative mode to travel to and from campus, including vanpools, carpools, public transit, campus shuttles, or other alternative means (such as walking or bicycling).

Table 4.13-30 Current and Future Commuters

Permit Group	Number	Parking Permits	Other Commuters
Current (2001) Commuters			
Faculty & Staff	18,553	14,841	3,762
Commuter Students	26,976	9,076	17,900
Total	***45,529***	***23,917***	***21,662***
Future (2011) Commuters without 2002 LRDP			
Faculty & Staff	18,691	14,920	3,781
Commuter Students	24,976	11,449	13,527
Total	***43,667***	***26,359***	***17,308***
Future (2011) Commuters with 2002 LRDP			
Faculty & Staff	20,448	16,355	4,093
Commuter Students	25,436	8,812	16,615
Total	***45,884***	***25,176***	***20,708***

Source: Crain & Associates, UCLA LRDP Transportation Systems Analysis, October 2002

In the future (with implementation of the 2002 LRDP) with an increase in student enrollment and the total campus population (as discussed in Section 4.10 [Population and Housing]), the total number of "Other Commuters" would increase by approximately 3,400 persons. This could result in an increase in public ridership (compared to future without project conditions. However, compared to current conditions, the total number of other commuters is anticipated to decline (as shown in Table 4.13-30) by approximately 954 persons during the regular session (compared to current conditions) due in part to the proposed NHIP. Thus, because the number of "other commuters" would be slightly less than current conditions, utilization of alternative transportation modes would also decrease, and campus-related demand for public transit would also decline slightly.

Assuring adequate capacity for public transit service is the responsibility of the individual service providers, who generally modify service in response to changes in demand. Changes in bus service, including the addition of new lines or an increase in the frequency of service, is typically undertaken after a public consultation process. In addition, changes in service that would result in additional bus layovers at the Hilgard Bus Terminal or along Westwood Plaza (for the Culver City Bus Line No. 6) would require input from the campus. Because of the projected decline in the number of "Other Commuters," no changes in bus service are anticipated as a result of implementation of the 2002 LRDP. The projected slight decline in campus-related public transit ridership is not substantial, and any decline in fare revenue is not anticipated to have any adverse effects on the transit providers. Therefore, impacts on alternative transportation modes, including public transit during the regular session, would be less than significant. No mitigation is required.

Impact LRDP 4.13-15 **Implementation of the 2002 LRDP could slightly increase demand for public transit during the summer session, but would not require an increase in transit service. This is considered a *less-than-significant* impact.**

With implementation of the 2002 LRDP, the average weekday campus population during the summer is anticipated to increase (as discussed in Section 4.10 [Population and Housing]) from approximately 34,126 persons (in 2000–01) to approximately 41,118 persons (in 2010–11), an increase of approximately 6,992 persons. This increase in campus population would increase demand for parking and other modes of transportation, compared to current summer conditions. However, because the campus population during the summer would remain substantially less than during the regular session (when the estimated average weekday population would be 61,541 in 2010–11), demand for alternative transportation modes during the summer would be less than during the regular session. Thus, although demand for alternative transportation modes, including public transit, would increase (compared to current conditions), demand would remain substantially below regular session levels. Since no changes in service would be required during the regular session, demand during summer session could also be accommodated without any changes in service.

Transit service providers generally base service levels, including the number of lines and the frequency of service, upon demand and occasionally adjust those service levels as demand warrants. However, the major service providers do not reduce or curtail service to the UCLA campus during the summer. Thus, although transit demand from UCLA commuters drops during the summer, service frequency is maintained. With implementation of the 2002 LRDP, summer demand for public transit would increase (related to the increase in summer enrollment), however, total demand would remain less than during the regular session. Therefore, no changes in bus service during the summer session are anticipated as a result of implementation of the 2002 LRDP, and the impact of the 2002 LRDP on public transit during the summer would be less than significant. No mitigation is required.

4.13.3 Cumulative Impacts

The geographic context for the analysis of cumulative transportation/traffic impacts includes the list of off-campus related projects and other future development within the general boundaries of the community of Westwood in the of the City of Los Angeles (included on Table 4.13-15). In addition, cumulative impacts are based on the future traffic volumes estimated by the SCAG Regional Transportation Model, which includes population and socio-economic projections for the entire five-county region covered by SCAG. As discussed in the methodology section, future traffic volumes for the project study area were projected using the SCAG transportation model, which was modified to account for future highway improvements. The larger of the traffic volumes (from the SCAG data or the list of related projects) was added to the existing traffic volumes to estimate future traffic conditions. This was conservative in that the highest potential traffic volumes were used for each zone. The results of this analysis are shown in Table 4.13-24 (for regular session) and Table 4.13-26 (for summer session), which show future traffic conditions both with and without implementation of the 2002 LRDP.

By comparing existing (2001) traffic conditions (in Table 4.13-1) to the future (2011) "Without Project" traffic conditions (in Table 4.13-24), an estimate of the traffic impact of regional growth, the off-campus related projects, previously-approved UCLA projects, and planned highway improvements can be developed, as shown in Table 4.13-31 (Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Regular Session). This table shows that cumulative traffic growth during the regular session, even without implementation of the 2002 LRDP and/or approval of any new projects at UCLA, could result in increases in traffic volumes that could be considered significant at 30 of the 58 study intersections in the A.M. peak hour and 33 intersections in the P.M. peak hour. Significance is defined by LADOT as a cumulative increase in the CMA value of 0.01 or more, when the final ("With Project") LOS is E or F; a CMA increase of 0.02 or more when the final LOS is D; or an increase of 0.04 or more at LOS C. The same comparison for summer indicates that cumulative increases in traffic volumes could be considered significant at 25 of the 58 study intersections in the A.M. peak hour and 29 intersections in the P.M. peak hour, as shown in Table 4.13-32 (Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Summer Session).

With implementation of the 2002 LRDP, the number of campus-related vehicle trips would increase during the regular session by approximately 1,327 average daily trips compared to future "Without Project" conditions. During the summer session (with implementation of the 2002 LRDP), the number of campus-related vehicle trips would increase by approximately 10,394 average daily trips. These increases in average daily trips would contribute to the cumulative increases in traffic on local streets, as shown in Table 4.13-33 (Cumulative Change in Traffic Conditions with 2002 LRDP—Regular Session) for regular session and Table 4.13-34 (Cumulative Change in Traffic Conditions with 2002 LRDP—Summer Session) for summer session.

Table 4.13-31 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Regular Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future Without Project CMA	Future Without Project LOS	Change	Significant Increase?[a]
1	Church Lane/Ovada Place and Sepulveda Boulevard	A.M.	0.925	E	0.805	D	-0.120	No
		P.M.	0.960	E	1.158	F	0.198	Yes
2	San Diego Fwy S/B On/Off Ramps and Church Lane	A.M.	0.950	E	0.629	B	-0.321	No
		P.M.	0.953	E	0.589	A	-0.364	No
3	Sunset Boulevard and Church Lane	A.M.	0.884	D	0.902	E	0.018	Yes
		P.M.	0.814	D	0.844	D	0.030	Yes
4	Sunset Boulevard and San Diego Fwy N/B On/Off-Ramps	A.M.	0.823	D	0.777	C	-0.046	No
		P.M.	0.544	A	0.553	A	0.009	No
5	Sunset Boulevard and Veteran Avenue	A.M.	0.892	D	0.913	E	0.021	Yes
		P.M.	0.820	D	0.840	D	0.020	Yes
6	Sunset Boulevard and Bellagio Way	A.M.	0.941	E	0.971	E	0.030	Yes
		P.M.	1.008	F	1.063	F	0.055	Yes
7	Sunset Boulevard and Westwood Boulevard	A.M.	0.599	A	0.604	B	0.005	No
		P.M.	0.609	B	0.624	B	0.015	No
8	Sunset Boulevard and Stone Canyon Road	A.M.	0.505	A	0.504	A	-0.001	No
		P.M.	0.604	B	0.616	B	0.012	No
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Rd.	A.M.	0.833	D	0.850	D	0.017	No
		P.M.	0.851	D	0.901	E	0.050	Yes
10	Sunset Boulevard and Beverly Glen Boulevard	A.M.	1.001	F	1.026	F	0.025	Yes
		P.M.	1.066	F	1.124	F	0.058	Yes
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard	A.M.	1.039	F	1.066	F	0.027	Yes
		P.M.	1.087	F	1.205	F	0.118	Yes
12	San Diego Fwy N/B Off-Ramp and Sepulveda Boulevard	A.M.	0.506	A	0.470	A	-0.036	No
		P.M.	0.564	A	0.487	A	-0.077	No

Table 4.13-31 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Regular Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future Without Project CMA	Future Without Project LOS	Change	Significant Increase?[a]
13	Montana Avenue and Sepulveda Boulevard	A.M.	0.931	E	1.081	F	0.150	Yes
		P.M.	0.890	D	0.874	D	-0.016	No
14	Montana Avenue and Levering Avenue	A.M.	1.012	F	1.188	F	0.176	Yes
		P.M.	0.837	D	0.957	E	0.120	Yes
15	Montana Avenue/Gayley Avenue and Veteran Avenue	A.M.	0.866	D	0.952	E	0.086	Yes
		P.M.	0.999	E	1.085	F	0.086	Yes
16	Strathmore Place and Gayley Avenue	A.M.	0.697	B	0.736	C	0.039	No
		P.M.	0.625	B	0.712	C	0.087	Yes
17	Levering Avenue and Veteran Avenue	A.M.	0.491	A	0.540	A	0.049	Yes
		P.M.	0.637	B	0.743	C	0.106	Yes
18	Wyton Drive and Hilgard Avenue	A.M.	0.427	A	0.475	A	0.048	No
		P.M.	0.300	A	0.361	A	0.061	No
19	Wyton Drive/Comstock Ave. and Beverly Glen Blvd.	A.M.	0.782	C	0.830	D	0.048	Yes
		P.M.	0.787	C	0.836	D	0.049	Yes
20	Westholme Avenue and Hilgard Avenue	A.M.	0.450	A	0.504	A	0.054	No
		P.M.	0.469	A	0.551	A	0.082	No
21	Manning Avenue and Hilgard Avenue	A.M.	0.273	A	0.288	A	0.015	No
		P.M.	0.320	A	0.341	A	0.021	No
22	Le Conte Avenue and Gayley Avenue	A.M.	0.646	B	0.699	B	0.053	No
		P.M.	0.548	A	0.583	A	0.035	No
23	Le Conte Avenue and Westwood Boulevard	A.M.	0.602	B	0.651	B	0.049	No
		P.M.	0.572	A	0.647	B	0.075	No
24	Le Conte Avenue and Tiverton Drive	A.M.	0.315	A	0.372	A	0.057	No
		P.M.	0.297	A	0.362	A	0.065	No

Table 4.13-31 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Regular Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future Without Project CMA	Future Without Project LOS	Change	Significant Increase?[1]
25	Le Conte Avenue and Hilgard Avenue	A.M.	0.543	A	0.602	B	0.059	No
		P.M.	0.621	B	0.716	C	0.095	Yes
26	Weyburn Avenue and Gayley Avenue	A.M.	0.421	A	0.406	A	-0.015	No
		P.M.	0.691	B	0.659	B	-0.032	No
27	Weyburn Avenue and Westwood Boulevard	A.M.	0.428	A	0.499	A	0.071	No
		P.M.	0.459	A	0.587	A	0.128	No
28	Weyburn Avenue and Tiverton Drive	A.M.	0.327	A	0.383	A	0.056	No
		P.M.	0.378	A	0.463	A	0.085	No
29	Weyburn Avenue and Hilgard Avenue	A.M.	0.356	A	0.375	A	0.019	No
		P.M.	0.525	A	0.641	B	0.116	No
30	Kinross Avenue and Westwood Boulevard	A.M.	0.407	A	0.639	B	0.232	No
		P.M.	0.705	C	1.005	F	0.300	Yes
31	Lindbrook Drive and Westwood Boulevard	A.M.	0.369	A	0.387	A	0.018	No
		P.M.	0.431	A	0.451	A	0.020	No
32	Lindbrook Drive and Tiverton Avenue	A.M.	0.599	A	0.653	B	0.054	No
		P.M.	0.525	A	0.577	A	0.052	No
33	Constitution Avenue and Sepulveda Boulevard	A.M.	0.415	A	0.360	A	-0.055	No
		P.M.	0.590	A	0.571	A	-0.019	No
34	Wilshire Boulevard and San Vicente Boulevard	A.M.	1.006	F	1.107	F	0.101	Yes
		P.M.	1.142	F	1.270	F	0.128	Yes
35	Wilshire Boulevard and Sepulveda Boulevard	A.M.	1.056	F	1.162	F	0.106	Yes
		P.M.	1.065	F	1.152	F	0.087	Yes
36	Wilshire Boulevard and Veteran Avenue	A.M.	0.934	E	0.977	E	0.043	Yes
		P.M.	1.361	F	1.243	F	-0.118	No

Table 4.13-31 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Regular Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future Without Project CMA	Future Without Project LOS	Change	Significant Increase?
37	Wilshire Boulevard and Gayley Avenue	A.M.	0.689	B	0.757	C	0.068	Yes
		P.M.	0.785	C	0.831	D	0.046	Yes
38	Wilshire Boulevard and Westwood Boulevard	A.M.	0.715	C	0.728	C	0.013	No
		P.M.	0.709	C	0.745	C	0.036	No
39	Wilshire Boulevard and Glendon Avenue	A.M.	0.770	C	0.818	D	0.048	Yes
		P.M.	0.867	D	0.950	E	0.083	Yes
40	Wilshire Boulevard and Malcolm Avenue	A.M.	0.622	B	0.692	B	0.070	No
		P.M.	0.768	C	0.857	D	0.089	Yes
41	Wilshire Boulevard and Westholme Avenue	A.M.	0.814	D	0.950	E	0.136	Yes
		P.M.	0.805	D	0.938	E	0.133	Yes
42	Wilshire Boulevard and Warner Avenue	A.M.	0.757	C	0.882	D	0.125	Yes
		P.M.	0.635	B	0.757	C	0.122	Yes
43	Wilshire Boulevard and Beverly Glen Boulevard	A.M.	0.846	D	0.961	E	0.115	Yes
		P.M.	0.849	D	0.981	E	0.132	Yes
44	Ohio Avenue and Sawtelle Boulevard	A.M.	0.943	E	0.995	E	0.052	Yes
		P.M.	0.871	D	0.919	E	0.048	Yes
45	Ohio Avenue and Sepulveda Boulevard	A.M.	1.008	F	1.166	F	0.158	Yes
		P.M.	0.949	E	1.032	F	0.083	Yes
46	Ohio Avenue and Veteran Avenue	A.M.	0.819	D	0.905	E	0.086	Yes
		P.M.	0.989	E	1.069	F	0.080	Yes
47	Ohio Avenue and Westwood Boulevard	A.M.	0.730	C	0.833	D	0.103	Yes
		P.M.	0.779	C	0.850	D	0.071	Yes
48	Santa Monica Boulevard and Sawtelle Boulevard	A.M.	0.874	D	0.922	E	0.048	Yes
		P.M.	0.836	D	0.882	D	0.046	Yes

Table 4.13-31 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Regular Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future Without Project CMA	Future Without Project LOS	Change	Significant Increase?[1]
49	Santa Monica Boulevard and San Diego Fwy (S/B)	A.M.	0.816	D	0.872	D	0.056	Yes
		P.M.	0.675	B	0.713	C	0.038	No
50	Santa Monica Boulevard and San Diego Fwy (N/B)	A.M.	1.039	F	1.097	F	0.058	Yes
		P.M.	0.837	D	0.913	E	0.076	Yes
51	Santa Monica Boulevard and Sepulveda Boulevard	A.M.	0.970	E	1.115	F	0.145	Yes
		P.M.	1.016	F	1.181	F	0.165	Yes
52	Santa Monica Boulevard and Veteran Avenue	A.M.	0.875	D	0.967	E	0.092	Yes
		P.M.	0.914	E	1.055	F	0.141	Yes
53	Santa Monica Boulevard and Westwood Boulevard	A.M.	0.812	D	0.913	E	0.101	Yes
		P.M.	0.852	D	0.938	E	0.086	Yes
54	Roscomare Road and Mulholland Dr	A.M.	1.195	F	1.457	F	0.262	Yes
		P.M.	0.715	C	0.872	D	0.157	Yes
55	Roscomare Road and Stradella Rd/Linda Flora Drive	A.M.	0.498	A	0.606	B	0.108	Yes
		P.M.	0.444	A	0.540	A	0.096	No
56	Chalon Road and Bellagio Road	A.M.	0.523	A	0.551	A	0.028	No
		P.M.	0.501	A	0.527	A	0.026	No
57	Beverly Glen Blvd and Mulholland Dr	A.M.	1.026	F	1.177	F	0.151	Yes
		P.M.	1.048	F	1.279	F	0.231	Yes
58	Beverly Glen Blvd and Greendale Dr	A.M.	0.812	D	0.919	E	0.107	Yes
		P.M.	0.811	D	0.989	E	0.178	Yes

1. Change in CMA value in comparison to City of Los Angeles significance thresholds

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Table 4.13-32 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Summer Session

	Intersection	Peak Hour	Current		Future Without Project		Change	Significant Increase?[1]
			CMA	LOS	CMA	LOS		
1	Church Lane/Ovada Place and Sepulveda Boulevard	A.M.	0.779	C	0.657	B	-0.122	No
		P.M.	0.971	E	1.176	F	0.205	Yes
2	San Diego Fwy S/B On/Off Ramps and Church Lane	A.M.	0.973	E	0.642	B	-0.331	No
		P.M.	1.193	F	0.723	C	-0.470	No
3	Sunset Boulevard and Church Lane	A.M.	0.767	C	0.780	C	0.013	No
		P.M.	0.927	E	0.966	E	0.039	Yes
4	Sunset Boulevard and San Diego Fwy N/B On/Off-Ramps	A.M.	0.760	C	0.750	C	-0.010	No
		P.M.	0.413	A	0.416	A	0.003	No
5	Sunset Boulevard and Veteran Avenue	A.M.	0.812	D	0.829	D	0.017	No
		P.M.	0.867	D	0.892	D	0.025	Yes
6	Sunset Boulevard and Bellagio Way	A.M.	0.939	E	0.885	D	-0.054	No
		P.M.	1.042	F	1.066	F	0.024	Yes
7	Sunset Boulevard and Westwood Boulevard	A.M.	0.486	A	0.484	A	-0.002	No
		P.M.	0.565	A	0.578	A	0.013	No
8	Sunset Boulevard and Stone Canyon Road	A.M.	0.395	A	0.390	A	-0.005	No
		P.M.	0.582	A	0.591	A	0.009	No
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Rd.	A.M.	0.798	C	0.813	D	0.015	No
		P.M.	0.808	D	0.855	D	0.047	Yes
10	Sunset Boulevard and Beverly Glen Boulevard	A.M.	0.926	E	0.947	E	0.021	Yes
		P.M.	1.063	F	1.120	F	0.057	Yes
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard	A.M.	0.885	D	0.904	E	0.019	Yes
		P.M.	1.079	F	1.195	F	0.116	Yes
12	San Diego Fwy N/B Off-Ramp and Sepulveda Boulevard	A.M.	0.434	A	0.395	A	-0.039	No
		P.M.	0.509	A	0.437	A	-0.072	No

Table 4.13-32 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Summer Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future Without Project CMA	Future Without Project LOS	Change	Significant Increase?[1]
13	Montana Avenue and Sepulveda Boulevard	A.M.	0.668	B	0.777	C	0.109	Yes
		P.M.	0.850	D	0.832	D	-0.018	No
14	Montana Avenue and Levering Avenue	A.M.	0.859	D	1.011	F	0.152	Yes
		P.M.	0.748	C	0.855	D	0.107	Yes
15	Montana Avenue/Gayley Avenue and Veteran Avenue	A.M.	0.778	C	0.855	D	0.077	Yes
		P.M.	0.969	E	1.053	F	0.084	Yes
16	Strathmore Place and Gayley Avenue	A.M.	0.623	B	0.658	B	0.035	No
		P.M.	0.466	A	0.532	A	0.066	No
17	Levering Avenue and Veteran Avenue	A.M.	0.489	A	0.537	A	0.048	No
		P.M.	0.633	B	0.741	C	0.108	Yes
18	Wyton Drive and Hilgard Avenue	A.M.	0.330	A	0.363	A	0.033	No
		P.M.	0.300	A	0.362	A	0.062	No
19	Wyton Drive/Comstock Ave. and Beverly Glen Blvd.	A.M.	0.609	B	0.648	B	0.039	No
		P.M.	0.751	C	0.798	C	0.047	Yes
20	Westholme Avenue and Hilgard Avenue	A.M.	0.390	A	0.435	A	0.045	No
		P.M.	0.404	A	0.478	A	0.074	No
21	Manning Avenue and Hilgard Avenue	A.M.	0.182	A	0.192	A	0.010	No
		P.M.	0.223	A	0.237	A	0.014	No
22	Le Conte Avenue and Gayley Avenue	A.M.	0.567	A	0.615	B	0.048	No
		P.M.	0.519	A	0.553	A	0.034	No
23	Le Conte Avenue and Westwood Boulevard	A.M.	0.559	A	0.606	B	0.047	No
		P.M.	0.553	A	0.626	B	0.073	No
24	Le Conte Avenue and Tiverton Drive	A.M.	0.311	A	0.367	A	0.056	No
		P.M.	0.299	A	0.363	A	0.064	No

Table 4.13-32 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Summer Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future Without Project CMA	Future Without Project LOS	Change	Significant Increase?[1]
25	Le Conte Avenue and Hilgard Avenue	A.M.	0.404	A	0.451	A	0.047	No
		P.M.	0.439	A	0.508	A	0.069	No
26	Weyburn Avenue and Gayley Avenue	A.M.	0.406	A	0.389	A	-0.017	No
		P.M.	0.779	C	0.753	C	-0.026	No
27	Weyburn Avenue and Westwood Boulevard	A.M.	0.412	A	0.479	A	0.067	No
		P.M.	0.442	A	0.576	A	0.134	No
28	Weyburn Avenue and Tiverton Drive	A.M.	0.282	A	0.330	A	0.048	No
		P.M.	0.389	A	0.474	A	0.085	No
29	Weyburn Avenue and Hilgard Avenue	A.M.	0.328	A	0.345	A	0.017	No
		P.M.	0.493	A	0.603	B	0.110	No
30	Kinross Avenue and Westwood Boulevard	A.M.	0.429	A	0.666	B	0.237	No
		P.M.	0.560	A	0.817	D	0.257	Yes
31	Lindbrook Drive and Westwood Boulevard	A.M.	0.364	A	0.381	A	0.017	No
		P.M.	0.367	A	0.358	A	-0.009	No
32	Lindbrook Drive and Tiverton Avenue	A.M.	0.294	A	0.316	A	0.022	No
		P.M.	0.311	A	0.337	A	0.026	No
33	Constitution Avenue and Sepulveda Boulevard	A.M.	0.376	A	0.329	A	-0.047	No
		P.M.	0.531	A	0.532	A	0.001	No
34	Wilshire Boulevard and San Vicente Boulevard	A.M.	0.885	D	0.976	E	0.091	Yes
		P.M.	0.918	E	1.024	F	0.106	Yes
35	Wilshire Boulevard and Sepulveda Boulevard	A.M.	0.973	E	1.070	F	0.097	Yes
		P.M.	1.000	E	1.083	F	0.083	Yes
36	Wilshire Boulevard and Veteran Avenue	A.M.	0.847	D	0.945	E	0.098	Yes
		P.M.	1.292	F	1.191	F	-0.101	No

Table 4.13-32 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Summer Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future Without Project CMA	Future Without Project LOS	Change	Significant Increase?[1]
37	Wilshire Boulevard and Gayley Avenue	A.M.	0.647	B	0.710	C	0.063	Yes
		P.M.	0.742	C	0.781	C	0.039	No
38	Wilshire Boulevard and Westwood Boulevard	A.M.	0.699	B	0.725	C	0.026	No
		P.M.	0.698	B	0.731	C	0.033	No
39	Wilshire Boulevard and Glendon Avenue	A.M.	0.621	B	0.660	B	0.039	No
		P.M.	0.721	C	0.792	C	0.071	Yes
40	Wilshire Boulevard and Malcolm Avenue	A.M.	0.634	B	0.707	C	0.073	Yes
		P.M.	0.824	D	0.919	E	0.095	Yes
41	Wilshire Boulevard and Westholme Avenue	A.M.	0.630	B	0.738	C	0.108	Yes
		P.M.	0.778	C	0.907	E	0.129	Yes
42	Wilshire Boulevard and Warner Avenue	A.M.	0.757	C	0.882	D	0.125	Yes
		P.M.	0.635	B	0.757	C	0.122	Yes
43	Wilshire Boulevard and Beverly Glen Boulevard	A.M.	0.703	C	0.799	C	0.096	Yes
		P.M.	0.818	D	0.945	E	0.127	Yes
44	Ohio Avenue and Sawtelle Boulevard	A.M.	0.861	D	0.909	E	0.048	Yes
		P.M.	0.875	D	0.923	E	0.048	Yes
45	Ohio Avenue and Sepulveda Boulevard	A.M.	0.815	D	0.945	E	0.130	Yes
		P.M.	0.965	E	1.051	F	0.086	Yes
46	Ohio Avenue and Veteran Avenue	A.M.	0.687	B	0.761	C	0.074	Yes
		P.M.	0.890	D	0.964	E	0.074	Yes
47	Ohio Avenue and Westwood Boulevard	A.M.	0.561	A	0.643	B	0.082	No
		P.M.	0.641	B	0.699	B	0.058	No
48	Santa Monica Boulevard and Sawtelle Boulevard	A.M.	0.838	D	0.884	D	0.046	Yes
		P.M.	0.886	D	0.936	E	0.050	Yes

Table 4.13-32 Cumulative Change in Traffic Conditions from Regional Growth and Related Projects—Summer Session

	Intersection	Peak Hour	Current		Future Without Project		Change	Significant Increase?[1]
			CMA	LOS	CMA	LOS		
49	Santa Monica Boulevard and San Diego Fwy (S/B)	A.M.	0.870	D	0.959	E	0.089	Yes
		P.M.	0.667	B	0.705	C	0.038	No
50	Santa Monica Boulevard and San Diego Fwy (N/B)	A.M.	0.783	C	0.826	D	0.043	Yes
		P.M.	0.737	C	0.805	D	0.068	Yes
51	Santa Monica Boulevard and Sepulveda Boulevard	A.M.	0.901	E	1.035	F	0.134	Yes
		P.M.	0.871	D	1.014	F	0.143	Yes
52	Santa Monica Boulevard and Veteran Avenue	A.M.	0.729	C	0.806	D	0.077	Yes
		P.M.	0.873	D	1.009	F	0.136	Yes
53	Santa Monica Boulevard and Westwood Boulevard	A.M.	0.771	C	0.860	D	0.089	Yes
		P.M.	0.841	D	0.950	E	0.109	Yes
54	Roscomare Road and Mulholland Dr	A.M.	1.195	F	1.257	F	0.062	Yes
		P.M.	0.715	C	0.751	C	0.036	No
55	Roscomare Road and Stradella Rd/Linda Flora Drive	A.M.	0.498	A	0.524	A	0.026	No
		P.M.	0.444	A	0.467	A	0.023	No
56	Chalon Road and Bellagio Road	A.M.	0.523	A	0.588	A	0.065	No
		P.M.	0.501	A	0.527	A	0.026	No
57	Beverly Glen Blvd and Mulholland Dr	A.M.	1.026	F	1.079	F	0.053	Yes
		P.M.	1.048	F	1.102	F	0.054	Yes
58	Beverly Glen Blvd and Greendale Dr	A.M.	0.812	D	0.853	D	0.041	Yes
		P.M.	0.811	D	0.853	D	0.042	Yes

1. Change in CMA value in comparison to City of Los Angeles significance thresholds

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

Table 4.13-33 Cumulative Change in Traffic Conditions with 2002 LRDP—Regular Session

	Intersection	Peak Hour	Current		Future With Project		Change	Significant Increase?[1]
			CMA	LOS	CMA	LOS		
1	Church Lane/Ovada Place and Sepulveda Boulevard	A.M.	0.925	E	0.808	D	-0.117	No
		P.M.	0.960	E	1.16	F	0.200	Yes
2	San Diego Fwy S/B On/Off Ramps and Church Lane	A.M.	0.950	E	0.633	B	-0.317	No
		P.M.	0.953	E	0.59	A	-0.363	No
3	Sunset Boulevard and Church Lane	A.M.	0.884	D	0.902	E	0.018	Yes
		P.M.	0.814	D	0.844	D	0.030	Yes
4	Sunset Boulevard and San Diego Fwy N/B On/Off-Ramps	A.M.	0.823	D	0.781	C	-0.042	No
		P.M.	0.544	A	0.555	A	0.011	No
5	Sunset Boulevard and Veteran Avenue	A.M.	0.892	D	0.925	E	0.033	Yes
		P.M.	0.820	D	0.845	D	0.025	Yes
6	Sunset Boulevard and Bellagio Way	A.M.	0.941	E	0.982	E	0.041	Yes
		P.M.	1.008	F	1.067	F	0.059	Yes
7	Sunset Boulevard and Westwood Boulevard	A.M.	0.599	A	0.614	B	0.015	No
		P.M.	0.609	B	0.626	B	0.017	No
8	Sunset Boulevard and Stone Canyon Road	A.M.	0.505	A	0.508	A	0.003	No
		P.M.	0.604	B	0.618	B	0.014	No
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Rd.	A.M.	0.833	D	0.859	D	0.026	Yes
		P.M.	0.851	D	0.905	E	0.054	Yes
10	Sunset Boulevard and Beverly Glen Boulevard	A.M.	1.001	F	1.028	F	0.027	Yes
		P.M.	1.066	F	1.125	F	0.059	Yes
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard	A.M.	1.039	F	1.071	F	0.032	Yes
		P.M.	1.087	F	1.205	F	0.118	Yes
12	San Diego Fwy N/B Off-Ramp and Sepulveda Boulevard	A.M.	0.506	A	0.473	A	-0.033	No
		P.M.	0.564	A	0.487	A	-0.077	No
13	Montana Avenue and Sepulveda Boulevard	A.M.	0.931	E	1.086	F	0.155	Yes
		P.M.	0.890	D	0.876	D	-0.014	No

Table 4.13-33 Cumulative Change in Traffic Conditions with 2002 LRDP—Regular Session

Intersection		Peak Hour	Current CMA	Current LOS	Future With Project CMA	Future With Project LOS	Change	Significant Increase?[1]
14	Montana Avenue and Levering Avenue	A.M.	1.012	F	1.202	F	0.190	Yes
		P.M.	0.837	D	0.961	E	0.124	Yes
15	Montana Avenue/Gayley Avenue and Veteran Avenue	A.M.	0.866	D	0.97	E	0.104	Yes
		P.M.	0.999	E	1.091	F	0.092	Yes
16	Strathmore Place and Gayley Avenue	A.M.	0.697	B	0.751	C	0.054	Yes
		P.M.	0.625	B	0.715	C	0.090	Yes
17	Levering Avenue and Veteran Avenue	A.M.	0.491	A	0.543	A	0.052	No
		P.M.	0.637	B	0.744	C	0.107	Yes
18	Wyton Drive and Hilgard Avenue	A.M.	0.427	A	0.483	A	0.056	No
		P.M.	0.300	A	0.363	A	0.063	No
19	Wyton Drive/Comstock Ave. and Beverly Glen Blvd.	A.M.	0.782	C	0.832	D	0.050	Yes
		P.M.	0.787	C	0.837	D	0.050	Yes
20	Westholme Avenue and Hilgard Avenue	A.M.	0.450	A	0.511	A	0.061	No
		P.M.	0.469	A	0.554	A	0.085	No
21	Manning Avenue and Hilgard Avenue	A.M.	0.273	A	0.296	A	0.023	No
		P.M.	0.320	A	0.344	A	0.024	No
22	Le Conte Avenue and Gayley Avenue	A.M.	0.646	B	0.705	C	0.059	Yes
		P.M.	0.548	A	0.585	A	0.037	No
23	Le Conte Avenue and Westwood Boulevard	A.M.	0.602	B	0.658	B	0.056	No
		P.M.	0.572	A	0.651	B	0.079	No
24	Le Conte Avenue and Tiverton Drive	A.M.	0.315	A	0.38	A	0.065	No
		P.M.	0.297	A	0.363	A	0.066	No
25	Le Conte Avenue and Hilgard Avenue	A.M.	0.543	A	0.614	B	0.071	No
		P.M.	0.621	B	0.717	C	0.096	Yes
26	Weyburn Avenue and Gayley Avenue	A.M.	0.421	A	0.414	A	-0.007	No
		P.M.	0.691	B	0.663	B	-0.028	No

Table 4.13-33 Cumulative Change in Traffic Conditions with 2002 LRDP—Regular Session

	Intersection	Peak Hour	Current		Future With Project		Change	Significant Increase?[1]
			CMA	LOS	CMA	LOS		
27	Weyburn Avenue and Westwood Boulevard	A.M.	0.428	A	0.504	A	0.076	No
		P.M.	0.459	A	0.592	A	0.133	No
28	Weyburn Avenue and Tiverton Drive	A.M.	0.327	A	0.392	A	0.065	No
		P.M.	0.378	A	0.463	A	0.085	No
29	Weyburn Avenue and Hilgard Avenue	A.M.	0.356	A	0.381	A	0.025	No
		P.M.	0.525	A	0.643	B	0.118	No
30	Kinross Avenue and Westwood Boulevard	A.M.	0.407	A	0.645	B	0.238	No
		P.M.	0.705	C	1.009	F	0.304	Yes
31	Lindbrook Drive and Westwood Boulevard	A.M.	0.369	A	0.391	A	0.022	No
		P.M.	0.431	A	0.452	A	0.021	No
32	Lindbrook Drive and Tiverton Avenue	A.M.	0.599	A	0.66	B	0.061	No
		P.M.	0.525	A	0.581	A	0.056	No
33	Constitution Avenue and Sepulveda Boulevard	A.M.	0.415	A	0.361	A	-0.054	No
		P.M.	0.590	A	0.571	A	-0.019	No
34	Wilshire Boulevard and San Vicente Boulevard	A.M.	1.006	F	1.109	F	0.103	Yes
		P.M.	1.142	F	1.27	F	0.128	Yes
35	Wilshire Boulevard and Sepulveda Boulevard	A.M.	1.056	F	1.165	F	0.109	Yes
		P.M.	1.065	F	1.152	F	0.087	Yes
36	Wilshire Boulevard and Veteran Avenue	A.M.	0.934	E	0.987	E	0.053	Yes
		P.M.	1.361	F	1.248	F	-0.113	No
37	Wilshire Boulevard and Gayley Avenue	A.M.	0.689	B	0.761	C	0.072	Yes
		P.M.	0.785	C	0.834	D	0.049	Yes
38	Wilshire Boulevard and Westwood Boulevard	A.M.	0.715	C	0.732	C	0.017	No
		P.M.	0.709	C	0.745	C	0.036	No
39	Wilshire Boulevard and Glendon Avenue	A.M.	0.770	C	0.822	D	0.052	Yes
		P.M.	0.867	D	0.951	E	0.084	Yes

Table 4.13-33 Cumulative Change in Traffic Conditions with 2002 LRDP—Regular Session

	Intersection	Peak Hour	Current		Future With Project		Change	Significant Increase?[1]
			CMA	LOS	CMA	LOS		
40	Wilshire Boulevard and Malcolm Avenue	A.M.	0.622	B	0.692	B	0.070	No
		P.M.	0.768	C	0.857	D	0.089	Yes
41	Wilshire Boulevard and Westholme Avenue	A.M.	0.814	D	0.952	E	0.138	Yes
		P.M.	0.805	D	0.938	E	0.133	Yes
42	Wilshire Boulevard and Warner Avenue	A.M.	0.757	C	0.884	D	0.127	Yes
		P.M.	0.635	B	0.757	C	0.122	Yes
43	Wilshire Boulevard and Beverly Glen Boulevard	A.M.	0.846	D	0.963	E	0.117	Yes
		P.M.	0.849	D	0.983	E	0.134	Yes
44	Ohio Avenue and Sawtelle Boulevard	A.M.	0.943	E	0.996	E	0.053	Yes
		P.M.	0.871	D	0.919	E	0.048	Yes
45	Ohio Avenue and Sepulveda Boulevard	A.M.	1.008	F	1.169	F	0.161	Yes
		P.M.	0.949	E	1.033	F	0.084	Yes
46	Ohio Avenue and Veteran Avenue	A.M.	0.819	D	0.909	E	0.090	Yes
		P.M.	0.989	E	1.071	F	0.082	Yes
47	Ohio Avenue and Westwood Boulevard	A.M.	0.730	C	0.837	D	0.107	Yes
		P.M.	0.779	C	0.851	D	0.072	Yes
48	Santa Monica Boulevard and Sawtelle Boulevard	A.M.	0.874	D	0.924	E	0.050	Yes
		P.M.	0.836	D	0.882	D	0.046	Yes
49	Santa Monica Boulevard and San Diego Fwy (S/B)	A.M.	0.816	D	0.872	D	0.056	Yes
		P.M.	0.675	B	0.713	C	0.038	No
50	Santa Monica Boulevard and San Diego Fwy (N/B)	A.M.	1.039	F	1.098	F	0.059	Yes
		P.M.	0.837	D	0.913	E	0.076	Yes
51	Santa Monica Boulevard and Sepulveda Boulevard	A.M.	0.970	E	1.116	F	0.146	Yes
		P.M.	1.016	F	1.181	F	0.165	Yes
52	Santa Monica Boulevard and Veteran Avenue	A.M.	0.875	D	0.971	E	0.096	Yes
		P.M.	0.914	E	1.056	F	0.142	Yes

Table 4.13-33 Cumulative Change in Traffic Conditions with 2002 LRDP—Regular Session

	Intersection	Peak Hour	Current CMA	Current LOS	Future With Project CMA	Future With Project LOS	Change	Significant Increase?[1]
53	Santa Monica Boulevard and Westwood Boulevard	A.M.	0.812	D	0.908	E	0.096	Yes
		P.M.	0.852	D	0.964	E	0.112	Yes
54	Roscomare Road and Mulholland Dr	A.M.	1.195	F	1.258	F	0.063	Yes
		P.M.	0.715	C	0.751	C	0.036	No
55	Roscomare Road and Stradella Rd/Linda Flora Drive	A.M.	0.498	A	0.525	A	0.027	No
		P.M.	0.444	A	0.467	A	0.023	No
56	Chalon Road and Bellagio Road	A.M.	0.523	A	0.591	A	0.068	No
		P.M.	0.501	A	0.527	A	0.026	No
57	Beverly Glen Blvd and Mulholland Dr	A.M.	1.026	F	1.081	F	0.055	Yes
		P.M.	1.048	F	1.102	F	0.054	Yes
58	Beverly Glen Blvd and Greendale Dr	A.M.	0.812	D	0.858	D	0.046	Yes
		P.M.	0.811	D	0.853	D	0.042	Yes

1. Change in CMA value in comparison to City of Los Angeles significance thresholds

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

		Peak Hour	Current CMA	Current LOS	Future With Project CMA	Future With Project LOS	Change	Significant Increase?[1]
Table 4.13-34 Cumulative Change in Traffic Conditions with 2002 LRDP—Summer Session								
1	Church Lane/Ovada Place and Sepulveda Boulevard	A.M.	0.779	C	0.670	B	-0.109	No
		P.M.	0.971	E	1.208	F	0.237	Yes
2	San Diego Fwy S/B On/Off Ramps and Church Lane	A.M.	0.973	E	0.658	B	-0.315	No
		P.M.	1.193	F	0.734	C	-0.459	No
3	Sunset Boulevard and Church Lane	A.M.	0.767	C	0.787	C	0.020	No
		P.M.	0.927	E	0.980	E	0.053	Yes
4	Sunset Boulevard and San Diego Fwy N/B On/Off-Ramps	A.M.	0.760	C	0.761	C	0.001	No
		P.M.	0.413	A	0.453	A	0.040	No
5	Sunset Boulevard and Veteran Avenue	A.M.	0.812	D	0.882	D	0.070	Yes
		P.M.	0.867	D	0.943	E	0.076	Yes
6	Sunset Boulevard and Bellagio Way	A.M.	0.939	E	0.939	E	0.000	Yes
		P.M.	1.042	F	1.122	F	0.080	Yes
7	Sunset Boulevard and Westwood Boulevard	A.M.	0.486	A	0.529	A	0.043	No
		P.M.	0.565	A	0.615	B	0.050	No
8	Sunset Boulevard and Stone Canyon Road	A.M.	0.395	A	0.405	A	0.010	No
		P.M.	0.582	A	0.618	B	0.036	No
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Rd.	A.M.	0.798	C	0.856	D	0.058	Yes
		P.M.	0.808	D	0.898	D	0.090	Yes
10	Sunset Boulevard and Beverly Glen Boulevard	A.M.	0.926	E	0.956	E	0.030	Yes
		P.M.	1.063	F	1.131	F	0.068	Yes
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard	A.M.	0.885	D	0.925	E	0.040	Yes
		P.M.	1.079	F	1.208	F	0.129	Yes
12	San Diego Fwy N/B Off-Ramp and Sepulveda Boulevard	A.M.	0.434	A	0.405	A	-0.029	No
		P.M.	0.509	A	0.438	A	-0.071	No
13	Montana Avenue and Sepulveda Boulevard	A.M.	0.668	B	0.804	D	0.136	Yes
		P.M.	0.850	D	0.855	D	0.005	No

Table 4.13-34 Cumulative Change in Traffic Conditions with 2002 LRDP—Summer Session								
		Peak Hour	Current		Future With Project		Change	Significant Increase?[1]
			CMA	LOS	CMA	LOS		
14	Montana Avenue and Levering Avenue	A.M.	0.859	D	1.075	F	0.216	Yes
		P.M.	0.748	C	0.905	E	0.157	Yes
15	Montana Avenue/Gayley Avenue and Veteran Avenue	A.M.	0.778	C	0.933	E	0.155	Yes
		P.M.	0.969	E	1.125	F	0.156	Yes
16	Strathmore Place and Gayley Avenue	A.M.	0.623	B	0.727	C	0.104	Yes
		P.M.	0.466	A	0.574	A	0.108	No
17	Levering Avenue and Veteran Avenue	A.M.	0.489	A	0.548	A	0.059	No
		P.M.	0.633	B	0.749	C	0.116	Yes
18	Wyton Drive and Hilgard Avenue	A.M.	0.330	A	0.390	A	0.060	No
		P.M.	0.300	A	0.384	A	0.084	No
19	Wyton Drive/Comstock Ave. and Beverly Glen Blvd.	A.M.	0.609	B	0.658	B	0.049	No
		P.M.	0.751	C	0.804	D	0.053	Yes
20	Westholme Avenue and Hilgard Avenue	A.M.	0.390	A	0.468	A	0.078	No
		P.M.	0.404	A	0.519	A	0.115	No
21	Manning Avenue and Hilgard Avenue	A.M.	0.182	A	0.227	A	0.045	No
		P.M.	0.223	A	0.269	A	0.046	No
22	Le Conte Avenue and Gayley Avenue	A.M.	0.567	A	0.643	B	0.076	No
		P.M.	0.519	A	0.584	A	0.065	No
23	Le Conte Avenue and Westwood Boulevard	A.M.	0.559	A	0.649	B	0.090	No
		P.M.	0.553	A	0.667	B	0.114	No
24	Le Conte Avenue and Tiverton Drive	A.M.	0.311	A	0.400	A	0.089	No
		P.M.	0.299	A	0.382	A	0.083	No
25	Le Conte Avenue and Hilgard Avenue	A.M.	0.404	A	0.504	A	0.100	No
		P.M.	0.439	A	0.541	A	0.102	No
26	Weyburn Avenue and Gayley Avenue	A.M.	0.406	A	0.421	A	0.015	No
		P.M.	0.779	C	0.794	C	0.015	No

Table 4.13-34 Cumulative Change in Traffic Conditions with 2002 LRDP—Summer Session								
		Peak Hour	Current CMA	Current LOS	Future With Project CMA	Future With Project LOS	Change	Significant Increase?[1]
27	Weyburn Avenue and Westwood Boulevard	A.M.	0.412	A	0.507	A	0.095	No
		P.M.	0.442	A	0.627	B	0.185	No
28	Weyburn Avenue and Tiverton Drive	A.M.	0.282	A	0.368	A	0.086	No
		P.M.	0.389	A	0.486	A	0.097	No
29	Weyburn Avenue and Hilgard Avenue	A.M.	0.328	A	0.370	A	0.042	No
		P.M.	0.493	A	0.640	B	0.147	No
30	Kinross Avenue and Westwood Boulevard	A.M.	0.429	A	0.698	B	0.269	No
		P.M.	0.560	A	0.863	D	0.303	Yes
31	Lindbrook Drive and Westwood Boulevard	A.M.	0.364	A	0.397	A	0.033	No
		P.M.	0.367	A	0.372	A	0.005	No
32	Lindbrook Drive and Tiverton Avenue	A.M.	0.294	A	0.342	A	0.048	No
		P.M.	0.311	A	0.360	A	0.049	No
33	Constitution Avenue and Sepulveda Boulevard	A.M.	0.376	A	0.333	A	-0.043	No
		P.M.	0.531	A	0.537	A	0.006	No
34	Wilshire Boulevard and San Vicente Boulevard	A.M.	0.885	D	0.982	E	0.097	Yes
		P.M.	0.918	E	1.035	F	0.117	Yes
35	Wilshire Boulevard and Sepulveda Boulevard	A.M.	0.973	E	1.102	F	0.129	Yes
		P.M.	1.000	E	1.091	F	0.091	Yes
36	Wilshire Boulevard and Veteran Avenue	A.M.	0.847	D	0.990	E	0.143	Yes
		P.M.	1.292	F	1.248	F	-0.044	No
37	Wilshire Boulevard and Gayley Avenue	A.M.	0.647	B	0.729	C	0.082	Yes
		P.M.	0.742	C	0.814	D	0.072	Yes
38	Wilshire Boulevard and Westwood Boulevard	A.M.	0.699	B	0.741	C	0.042	No
		P.M.	0.698	B	0.742	C	0.044	No
39	Wilshire Boulevard and Glendon Avenue	A.M.	0.621	B	0.684	B	0.063	No
		P.M.	0.721	C	0.802	D	0.081	Yes

Table 4.13-34 Cumulative Change in Traffic Conditions with 2002 LRDP—Summer Session

		Peak Hour	Current CMA	Current LOS	Future With Project CMA	Future With Project LOS	Change	Significant Increase?[1]
40	Wilshire Boulevard and Malcolm Avenue	A.M.	0.634	B	0.709	C	0.075	Yes
		P.M.	0.824	D	0.932	E	0.108	Yes
41	Wilshire Boulevard and Westholme Avenue	A.M.	0.630	B	0.750	C	0.120	Yes
		P.M.	0.778	C	0.915	E	0.137	Yes
42	Wilshire Boulevard and Warner Avenue	A.M.	0.757	C	0.893	D	0.136	Yes
		P.M.	0.635	B	0.772	C	0.137	Yes
43	Wilshire Boulevard and Beverly Glen Boulevard	A.M.	0.703	C	0.811	D	0.108	Yes
		P.M.	0.818	D	0.961	E	0.143	Yes
44	Ohio Avenue and Sawtelle Boulevard	A.M.	0.861	D	0.916	E	0.055	Yes
		P.M.	0.875	D	0.926	E	0.051	Yes
45	Ohio Avenue and Sepulveda Boulevard	A.M.	0.815	D	0.959	E	0.144	Yes
		P.M.	0.965	E	1.059	F	0.094	Yes
46	Ohio Avenue and Veteran Avenue	A.M.	0.687	B	0.767	C	0.080	Yes
		P.M.	0.890	D	0.989	E	0.099	Yes
47	Ohio Avenue and Westwood Boulevard	A.M.	0.561	A	0.658	B	0.097	No
		P.M.	0.641	B	0.713	C	0.072	Yes
48	Santa Monica Boulevard and Sawtelle Boulevard	A.M.	0.838	D	0.891	D	0.053	Yes
		P.M.	0.886	D	0.942	E	0.056	Yes
49	Santa Monica Boulevard and San Diego Fwy (S/B)	A.M.	0.870	D	0.959	E	0.089	Yes
		P.M.	0.667	B	0.706	C	0.039	No
50	Santa Monica Boulevard and San Diego Fwy (N/B)	A.M.	0.783	C	0.834	D	0.051	Yes
		P.M.	0.737	C	0.809	D	0.072	Yes
51	Santa Monica Boulevard and Sepulveda Boulevard	A.M.	0.901	E	1.037	F	0.136	Yes
		P.M.	0.871	D	1.015	F	0.144	Yes
52	Santa Monica Boulevard and Veteran Avenue	A.M.	0.729	C	0.817	D	0.088	Yes
		P.M.	0.873	D	1.026	F	0.153	Yes

Table 4.13-34 Cumulative Change in Traffic Conditions with 2002 LRDP—Summer Session

		Peak Hour	Current		Future With Project		Change	Significant Increase?[1]
			CMA	LOS	CMA	LOS		
53	Santa Monica Boulevard and Westwood Boulevard	A.M.	0.771	C	0.876	D	0.105	Yes
		P.M.	0.841	D	0.961	E	0.120	Yes
54	Roscomare Road and Mulholland Dr	A.M.	1.195	F	1.258	F	0.063	Yes
		P.M.	0.715	C	0.752	C	0.037	No
55	Roscomare Road and Stradella Rd/Linda Flora Drive	A.M.	0.498	A	0.526	A	0.028	No
		P.M.	0.444	A	0.467	A	0.023	No
56	Chalon Road and Bellagio Road	A.M.	0.523	A	0.600	A	0.077	No
		P.M.	0.501	A	0.543	A	0.042	No
57	Beverly Glen Blvd and Mulholland Dr	A.M.	1.026	F	1.090	F	0.064	Yes
		P.M.	1.048	F	1.107	F	0.059	Yes
58	Beverly Glen Blvd and Greendale Dr	A.M.	0.812	D	0.877	D	0.065	Yes
		P.M.	0.811	D	0.858	D	0.047	Yes

1. Change in CMA value in comparison to City of Los Angeles significance thresholds

Source: Crain and Associates, UCLA LRDP Transportation Systems Analysis, October 2002

During the regular session (with implementation of the 2002 LRDP), cumulative increases in traffic volumes could be considered significant at 33 of the 58 study intersections in the A.M. peak hour and 33 intersections in the P.M. peak hour; this is an increase of 3 intersections in the A.M. peak hour, compared to future "Without Project" conditions. Those intersections are

9. Sunset Boulevard and Hilgard Avenue/Copa De Oro Road (A.M. peak)
16. Strathmore Place and Gayley Avenue (A.M. peak)
22. Le Conte and Gayley Avenue (A.M. peak)

During the summer session (with implementation of the 2002 LRDP), cumulative increases in traffic volumes could be considered significant at 29 of the 58 study intersections in the A.M. peak hour and 31 intersections in the P.M. peak hour; this is an increase of 4 intersections in the A.M. peak hour and 2 intersections in the P.M. peak hour. Those intersections are

5. Sunset Boulevard and Veteran Avenue (A.M. peak)
6. Sunset Boulevard and Bellagio Way (A.M. peak)
9. Sunset Boulevard and Hilgard Avenue/Copa De Oro Road (A.M. peak)
16. Strathmore Place and Gayley Avenue (A.M. peak)
37. Wilshire Boulevard and Gayley Avenue (P.M. peak)
47. Ohio Avenue and Westwood Boulevard (P.M. peak)

The feasibility of mitigating the potentially significant cumulative increases in traffic at the identified intersections was evaluated. As discussed above (under Impacts 4.13-1 and 4.13-2), no feasible mitigation measures have been identified at the following intersections:

5. Sunset Boulevard and Veteran Avenue
6. Sunset Boulevard and Bellagio Way
9. Sunset Boulevard and Hilgard Avenue/Copa De Oro Road
16. Strathmore Place and Gayley Avenue

Intersection No. 37 (Wilshire Boulevard and Gayley Avenue) was identified above (under Impact 4.13-2) as a candidate for ATCS installation, which would reduce the impact of both project-specific and cumulative increases in traffic.

Intersection No. 22 (Le Conte and Gayley Avenue) was not identified as the location of a project-specific impact. However, the intersection is included in the list of 51 intersections that the Los Angeles Department of Transportation has identified for a comprehensive installation of ATCS in the Westwood area. Because of the potential contribution of the LRDP to cumulative traffic increases at this intersection, the University would provide fair share funding to the City of Los Angeles for the installation of ATCS at the intersection of Le Conte and Gayley Avenue.

Intersection No. 47 (Ohio Avenue and Westwood Boulevard) was not identified as the location of a project-specific impact. The intersection is not on the list of 51 intersections that the LADOT has identified for a comprehensive ATCS installation. However, the proposed list of intersections does include two other intersections on Westwood Boulevard (south of Wilshire Boulevard) at Wellworth Avenue and Rochester Avenue. Extending the ATCS installation south to Ohio Avenue (the next signalized intersection to the south) would be technically feasible. If LADOT is willing to extend installation of ATCS, the University would provide fair share funding to the City of Los Angeles for the installation of ATCS at the intersection of Ohio Avenue and Westwood Boulevard. Regional plans to improve some of the cumulative traffic conditions have been developed in the SCAG Regional Mobility Element, the Los Angeles County Congestion Management Plan, and the transportation elements of the Los Angeles General Plan, Westwood Community Plan, and certain interim control ordinances. However, a comprehensive traffic mitigation program for the Westwood/West Los Angeles area is still under development by the City of Los Angeles. Since most of these improvements have not yet been approved or funded, this EIR does not assume implementation of any such programs during the planning horizon. In addition, because off-campus roadway improvements and regional transportation strategies are not within the jurisdiction of The Regents to implement and because some of these improvements and strategies are unfunded or are otherwise uncertain from a technical, economic, legal or political perspective, these cumulative traffic impacts are considered significant and unavoidable for purposes of this EIR. This is considered to be a *significant and unavoidable* impact.

It is expected that construction of the related projects (shown on Table 4.13-15) and other future development during the timeframe of the 2002 LRDP will result in periods of heavy truck traffic as a result of the delivery of construction materials and the hauling of demolition waste and earth materials. Although the timeframe for construction of these projects is uncertain (as well as the degree to which construction of these projects will overlap among themselves and the locations at which impacts could occur), it is likely that construction and hauling activity associated with these future projects will significantly affect road segments and intersections, resulting in a significant cumulative impact. Due to the potential overlap between the 2002 LRDP construction and other current and future campus construction projects, it was conservatively assumed that the net effect of campus construction activities could result in localized traffic impacts in the vicinity of campus, particularly at the Wilshire and Sunset Boulevard intersections that provide access to the campus. While PP 4.13-3 will reduce construction traffic impacts to the extent feasible by monitoring and adjusting construction schedules and access routes, it is anticipated that significant impacts may occur from time to time during the construction of development under the 2002 LRDP. It is further possible that construction activities under the 2002 LRDP will overlap with construction activities associated with the off-campus related projects. While the exact contribution of the 2002 LRDP to cumulative construction-related traffic impacts would be impossible to quantify, and will vary on a periodic basis, it is anticipated that at times the contribution of the 2002 LRDP to cumulative impacts will be considerable and, therefore, significant. This is considered to be a *significant and unavoidable* impact.

By its nature, the Los Angeles County Congestion Management Program (CMP) is a cumulative scenario that considers the impact of single projects in the context of cumulative traffic demand on CMP roadways. The CMP defines regional project impacts as significant (in terms of its contribution to the cumulative impact) if a project results in an increase in the demand to capacity ratio by more than 0.020 (two percent) and the final LOS is F. It is possible that traffic impacts created by regional growth (including the related projects) will combine to exceed the CMP standard of significance, and, to the extent that this occurs, a significant cumulative impact would be the result. However, as indicated in Table 4.13-18, the maximum contribution of the 2002 LRDP to increases in traffic volume on the two CMP roadways analyzed (the San Diego and Santa Monica Freeways) is 0.003 percent. While growth associated with the related projects and regional growth in general may result in additional and potentially significant increases in traffic volume on these CMP roadways, the contribution of the 2002 LRDP is not cumulatively considerable and, thus, less than significant. This is considered to be a *less-than-significant* impact.

It is anticipated that future development of the related projects and other future development would be required to adhere to standard engineering practices and requirements and would be subject to planning and design review by the City of Los Angeles to avoid traffic hazards created by design features and land use incompatibilities. For this reason, and because such impacts (if and where they occur) are relatively site specific, cumulative impacts associated with such traffic hazards are less than significant. As discussed under Impact 4.13-5, the 2002 LRDP would not result in the need for any new roadway segments or substantive changes in roadway configuration. All design development under the 2002 LRDP would include the use of standard engineering practices to avoid design elements that would increase roadway hazards. Moreover, development under the 2002 LRDP will not result in land use incompatibilities that would lead to the creation of traffic hazards. For these reasons, the contribution of the 2002 LRDP to any cumulative impacts from traffic hazards is also less than significant. This is considered to be a *less-than-significant* impact.

Due to the dispersed location of future development (including the related projects) and the anticipation that the related projects will be required to implement safety and access measures during construction (in accordance with City of Los Angeles requirements), cumulative impacts associated with vehicular and pedestrian hazards during construction are expected to be less than significant. Impacts 4.13-6 and 4.13-7 discuss the potential of the 2002 LRDP to increase vehicular or pedestrian hazards as a result of the closure of traffic lanes, roadway segments, or sidewalks. As indicated, the campus follows procedures (PP 4.13-6 and PP 4.13-7) to maintain safety and accessibility during construction periods. As a result, these potential impacts, which are localized at the area of construction activity, will remain less than significant, making the 2002 LRDP's contribution to cumulative impacts less than significant. This is considered to be a *less-than-significant* impact.

It is anticipated that construction and operation of the related projects (and other future growth in the area over during the 2002 LRDP planning horizon) will generate additional traffic on surface streets and intersections in the area of cumulative analysis and will, from time to time, result in lane closures and other temporary constraints to access. However, as discussed above, operational traffic associated with the related projects and future growth in general is captured within the assumptions that form the future "Without Project" traffic volumes utilized in this EIR and which represent an incremental change over existing conditions. It is not anticipated that future levels of traffic associated with the related projects would result in a significant impairment of emergency access. Impacts from closure due to construction of the related projects and other future projects (like those associated with the 2002 LRDP) are relatively site-specific, and, thus, it is not considered likely that the construction of the related projects would have a cumulative effect above and beyond the immediate effects of this construction at the location in question. For these reasons, the cumulative impact of the related projects on emergency access is less than significant. As discussed in Impacts 4.13-8 and 4.13-9, the 2002 LRDP will not result in inadequate emergency access. As a result, trip generation on surface arterials, construction activity, and (as discussed in Impact 4.13-8) traffic associated with the 2002 LRDP would not be a considerable addition to future traffic volumes in terms of its effect on emergency access. For these reasons, the contribution of the 2002 LRDP to the less-than-significant cumulative impacts on emergency access is less than significant. This is considered to be a *less-than-significant* impact.

Under the City of Los Angeles Zoning Code, the related projects and other future development would be required to provide adequate on-site (off-street) parking as a condition of development approval, and, thus, it is unlikely that future development will have a significant cumulative effect on parking supply and demand in the area. In addition, as shown on Figure 4.13-5, most of the related projects are a sufficient distance from one another (and far enough from the UCLA campus) to reduce the potential for parking shortages at one location from having an effect elsewhere. It is further anticipated that on-site parking at many of the related project sites, particularly those located in Westwood Village, will continue to be regulated by monthly permit sales and user fees (generally limited to building tenants and visitors), validation by merchants and other businesses, and physical barriers such as gates. For these reasons, cumulative impacts on parking are not anticipated to be significant. As discussed under Impacts 4.13-10 and 4.13-11, UCLA will continue to provide adequate on-campus parking during both the regular and summer session to satisfy student, faculty, and visitor demand. In addition, UCLA will continue to provide and support alternative transportation to reduce vehicle trips to campus and to increase on-campus student housing to reduce the number of commuters to campus. For these reasons, the contribution of the 2002 LRDP to cumulative parking supply impacts is less than significant. This is considered to be a *less-than-significant* impact.

In accordance with City of Los Angeles requirements, it is anticipated that related projects and other future development will either accommodate construction worker parking on-site or through other suitable means to reduce impacts on surrounding parking facilities. For these reasons, cumulative construction activity associated with the related projects will be less than significant. As discussed under Impact 4.13-12, the 2002 LRDP will not result in significant impacts due to the elimination of parking spaces necessary to accommodate construction activity and construction workers. As required by Mitigation Measure 4.13-12, off-campus parking for construction workers, with shuttle service, will be provided, if necessary. For this reason, construction activity as a result of the 2002 LRDP will not significantly displace other users of on-campus parking and will not create significant impacts to off-campus parking facilities. Consequently, the contribution of the 2002 LRDP to cumulative impacts associated with construction worker parking is less than significant. This is considered to be a *less-than-significant* impact.

It is anticipated that development associated with the related projects and other future development will result in an increased demand on alternative transportation, although due to the locations of the various related projects, it is expected that cumulative increases in demand will be distributed among the various bus routes that serve the area. As indicated in Tables 4.13-3 and 4.13-4, all bus routes are currently operating under capacity. While it is possible that ridership demand on a particular bus route associated with future development could be significant when compared to existing conditions, it can generally be expected that cumulative impacts on bus service will be less than significant as a whole. Impacts of the 2002 LRDP on alternative transportation during both the regular and summer sessions are discussed as Impacts 4.13-14 and 4.13-15, respectively. Although (with the implementation of the 2002 LRDP) student enrollment and the on-campus population will increase, the number of commuters to campus will slightly decrease under the 2002 LRDP, primarily as a result of the provision of on-campus housing associated with the Northwest Campus Housing Infill project. Because the number of commuters as a whole will be less, demand for alternative transportation will also experience a slight decrease. As a result, the contribution of the 2002 LRDP to such cumulative impacts on alternative transportation as might occur in the future is less than significant. This is considered to be a *less-than-significant* impact.

4.13.4 References

Crain & Associates. 2002. *UCLA Long Range Development Plan Transportation Systems Analysis*, October.

Los Angeles, City of. 1996. *Los Angeles General Plan Framework Draft Environmental Impact Report (SCH No. 94071030).*

University of California, Los Angeles. 1996. *Parking Structure 4 Expansion Final Environmental Impact Report (SCH No. 96041018).*

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———. 2001. *UCLA Intramural Field Parking Structure Final Environmental Impact Report* (*SCH No. 1999091001*).

———. 2001. *UCLA Southwest Campus Housing and Parking Final Environmental Impact Report* (*SCH No. 200005104*).

University of California, Merced. 2002. *University of California Merced Campus Long Range Development Plan Final Environmental Impact Report (SCH No. 2001021065).*

4.14 UTILITIES AND SERVICE SYSTEMS

This section evaluates the effects on utilities and service systems related to implementation of the 2002 LRDP by identifying anticipated demand and existing and planned utility availability. For purposes of this EIR, utilities include domestic water supply, solid waste collection and disposal, wastewater conveyance and treatment, and energy (electricity and natural gas). Stormwater drainage facilities are discussed in Section 4.7 (Hydrology and Water Quality) of this document.

Data used to prepare this section was taken from various sources, including previous environmental documentation prepared for the UCLA campus, other campus data sources, and contacts with utility providers. Full bibliographic entries for all reference materials are provided in Section 4.14.5 (References) of this section.

The University received no comment letters related to utilities in response to the Notice of Preparation circulated for the project.

4.14.1 Water Supply

Environmental Setting

The City of Los Angeles Department of Water and Power (LADWP), a public water agency formed in 1902, supplies domestic water to UCLA. The LADWP obtains water from the Los Angeles Aqueduct (LAA), local wells, water purchases from the Metropolitan Water District (MWD), and reclamation of wastewater for certain irrigation uses. Additional sources of water may become available to LADWP through seawater and brackish water desalinization, increased conservation of stormwater runoff, exchanges and transfers of water, and the restructuring of water pricing.

Recent court decisions have limited the City's ability to provide additional aqueduct deliveries from the LAA to benefit the environment in the Mono Basin and the Owens Valley. As a result, the median annual LAA delivery over the next 20 years is expected to be approximately 321,000 acre-feet (104.6 billion gallons), which will satisfy approximately 50 percent of the City's water needs (LADWP 2001).

The City is also entitled to extract 108,100 acre-feet/year (35.7 billion gallons) from the San Fernando Basin (SFB), Central, and Sylmar, groundwater basins. The SFB also holds a water reserve totaling 255,000 acre-feet (83.1 billion gallons) as of October 1999, and LADWP has the right to pump water from this reserve in the case of temporary interruption of water imports or in case of a drought that reduces production from the LAA. Since 1970, local wells have produced about 95,000 acre-feet/year

(31.0 billion gallons), accounting for 15 percent of the City's total water supply. About 80 percent of this groundwater comes from the SFB, with the remaining basins making up the balance. In emergencies or during prolonged drought periods, additional groundwater can be extracted from the SFB. The availability of groundwater supplies is expected to increase to 150,000 acre-feet/year (48.9 billion gallons) by 2020, when recycled water will be used to recharge and replenish groundwater stored in the SFB (LADWP 2001).

On average, MWD currently provides approximately 35 percent of the City's water supply. LADWP has historically purchased MWD water to make up the deficit between demand and the City's own supplies. The City has made significant investments in MWD's infrastructure and plans to continue relying on MWD to meet its supplemental water needs.

Current annual water demands in Los Angeles are about 665,000 acre-feet (216.7 billion gallons), with an average per capita use of 150 gallons per day (gpd). About two-thirds of the City's demand goes to residential uses, almost equally shared by single-family and multi-family units. About one-quarter of the demand goes to commercial and governmental uses, with a very small amount used by industry.

LADWP's 2000 Urban Water Management Plan states that normal-year water use in Los Angeles is projected to increase to 718,000 acre-feet/year (234 billion gallons) in 2010. While substantial additional development is anticipated within the LADWP service area, indoor per capita water usage is expected to decline. The City has employed various conservation measures to balance demand with a sustainable source of water supply to the City. These include tiered water pricing, financial incentives for the installation of ultra-low-flush toilets and water-efficient washing machines, technical assistance programs for business and industry, and large landscape irrigation efficiency programs. Despite a population increase of slightly over 35 percent since 1970 (nearly one million people), current water use has grown by only 7 percent and per capita usage has been reduced by 15 percent.

Approximately 89 percent of the year 2010 demand is projected to be met by the aqueduct and local sources operated primarily by the City of Los Angeles. The unmet need will be provided from the City's MWD water entitlement of 1.3 million acre-feet (424 billion gallons) per year.

The LADWP has indicated in its Urban Water Management Plan that it will provide an adequate water supply to meet current and future growth until at least 2020.

Water Treatment Facilities

The LADWP actively monitors every well pumped to supply water to the City of Los Angeles for water quality, as required by the California Department of Health Services. LADWP's groundwater monitoring program consists of

- *Quarterly Organic Monitoring*—the sampling of all wells where organic compounds have been detected
- *Organic Monitoring*—the sampling of the full range of organic compounds at all wells every three years
- *Inorganic Monitoring*—the sampling of the full range of inorganic compounds at all wells every three years
- *Radiological Monitoring*—radiological testing of all wells every three years

Monitoring for organic and inorganic compounds is performed at different points in the distribution system close to the wells. These procedures ensure that all extracted water complies with or exceeds the water quality standards set by regulatory agencies. LADWP operates the LAA Filtration Plant, and within the next ten years LADWP plans to invest $724 million of its Capital Improvement Program on projects to provide additional safety for City water supplies. LADWP prepares annual reports on water quality for four areas within the City, including Western Los Angeles, where the UCLA campus is located. LADWP has made the necessary commitments (i.e., planning and financial) to adequately treat all water supplied to the City of Los Angeles through 2020 (Year 2000 Urban Water Management Plan) within existing and/or planned water treatment facilities.

UCLA Campus Water Demand

The LADWP supplies water to the UCLA campus and ensures that the water meets all applicable State water quality standards. In 2001, the total campus water consumption was approximately 2.44 million gallons per day (mgd). Approximately 80 to 85 percent of total campus water consumption is attributed to indoor use, with approximately 15 percent to 20 percent used for landscape irrigation. The largest portion of indoor water use is primarily attributable to mechanical equipment used to air-condition campus buildings using the Energy Systems Facility cooling towers, steam boilers and other stand-alone chiller equipment. Other indoor water uses include residence halls, research laboratories, medical and patient care activities, dining facilities, restrooms, gymnasium showers, custodial areas, and drinking fountains.

UCLA Campus Water Conservation Efforts

In the 1990 LRDP, UCLA adopted measures to reduce overall water consumption by at least 15 percent from the levels used in academic year 1987–88. A water-conservation retrofitting program on the UCLA campus included technological advances in cooling equipment to air-condition campus buildings; the installation of low-flow showers, toilets, and urinals throughout campus, except for patient care facilities in the Medical Center; and improvements in irrigation techniques. UCLA has also established maintenance programs to reduce water loss from leaky faucets and water main breaks, and has installed hot water circulating pumps that provide almost instantaneous hot water in lavatory faucets, thereby preventing the wasteful use of running water until it becomes hot. UCLA has replaced older galvanized irrigation pipes with new polyvinyl chloride (PVC) pipes and automatic sprinkler controls to activate irrigation systems during evening or early morning hours. Such changes significantly reduce irrigation water loss through leaks and evaporation. Water use in 2001 has decreased approximately 25 percent from that of 1987–88, exceeding the 15 percent reduction goal adopted in the 1990 LRDP.

The campus also has a process whereby condensate water from mechanical equipment (such as air circulation fans) at the Center for the Health Sciences is captured for use in the Energy Systems Facility (ESF) cooling system. Similarly, groundwater obtained from site dewatering activities for the Academic Health Center Replacement Hospital is being pumped for use in the ESF cooling system. Both of these processes generate approximately 210,000 gpd of manufactured water for cooling that is essentially reused, rather than entering the wastewater system. UCLA recycles approximately 50 percent of cooling water used in the ESF (chiller-cogeneration facility) and continues to achieve reductions in water usage for cooling campus buildings. The campus has continued to improve its cooling water treatment program through alterations to water chemistry, thereby extending the number of times the water can be recycled through the system.

Regulatory Framework

Federal and State

The LADWP is responsible for meeting federal and State laws and regulations regarding water supply and water quality. Such regulations include water supply treatment system testing and monitoring, as specified in Title 23, Division 4, Chapter 1, Article 4 of the California Code of Regulations (CCR), and federal regulations promulgated by the Environmental Protection Agency.

Urban Water Management Planning Act (California Water Code, Division 6, Part 2.6, Section 10610 et seq.*)*

The Urban Water Management Planning Act was developed due to concerns for potential water supply shortages throughout the State of California. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required, as part of the Act, to develop and implement Urban Water Management Plans to describe their efforts to promote efficient use and management of water resources.

Water Conservation Projects Act

The State of California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950–11954), as reflected below:

> *11952. (a)* It is the intent of the Legislature in enacting this chapter to encourage local agencies and private enterprise to implement potential water conservation and reclamation projects….

Project Impacts and Mitigation

Analytic Method

The baseline water use for the UCLA campus includes current water use associated with existing development and projected water use from projects that are under construction, approved, and/or for which an environmental document has been prepared in accordance with CEQA. Projected water use as a result of implementation of the 2002 LRDP may be analyzed and calculated by one of three methods: (1) using standard use (or demand) factors (usually published by a water provider)[30] that correlate the type of land use with a water use rate; (2) determining a water demand factor specific to the campus by dividing the total existing campus water usage by the total developed gross square feet; or (3) applying a 2 percent annual growth factor to the total existing campus water usage, which has been determined by the LADWP in the Urban Water Management Plan to be a reasonable projection of future water demand growth.

In preparing this EIR, projected water use was calculated using all three methods, and the results were analyzed to determine which method yielded data closest to actual campus water use. Based upon this analysis, it was determined that utilization of a campus water demand factor provided the most accurate yet conservative results, and it is also the method utilized by other University of California (UC) campuses for programmatic analyses. The use of both a standard water provider demand factor and a 2 percent annual growth factor resulted in less water demand as compared to the use of a campus water

[30] Water providers, including the LADWP, do not have standard demand factors for all of the uses that are unique to a University environment.

demand factor. Therefore, the campus water demand factor of 0.17577 gpd per gross square foot (gsf), which was derived by dividing the 2001 total campus water use by the total gross square footage of occupied campus facilities shown in Table 4.14-1, is used to estimate future water usage for UCLA.

The campus water demand factor was calculated using existing development, excluding parking structures since water use for parking structures is negligible. While water is periodically used to wash parking structure surfaces with portable steamers, the amount of water used for this purpose is negligible, representing only 0.00078 percent of the total existing campus water use. Table 4.14-1 (Existing and Projected 2002 LRDP Water Use) provides the water use associated with existing campus development (provided as gsf), development that is under construction, approved, and/or analyzed in an environmental document, and projected 2002 LRDP development.

Table 4.14-1 Existing and Projected 2002 LRDP Water Use[1]

	Development (gsf)[2]	*Water Use (gpd)*
2001–02 Existing Use (actual)	13,881,695	2,440,000
Under Construction, Approved, and/or Analyzed in an Environmental Document (estimated)	1,505,435	264,610
Subtotal: 2002 LRDP Baseline	*15,387,130*	*2,704,610*
2002 LRDP (estimated)	1,706,465	299,945[3]
Total	***17,093,595***	***3,004,555***

1. Includes indoor and outdoor water use.
2. Excludes parking structures.
3. The water demand factor is calculated by dividing the 2001–02 water usage by the campus occupied square footage (e.g., 2,440,000 gpd/13,881,695 gsf = 0.17577 gpd/gsf). Therefore, the UCLA water demand factor for projection purposes is 0.17577 gpd/gsf.

Source: UCLA Capital Programs, 2002

To determine impacts on water supply resulting from implementation of the 2002 LRDP, the projected increase in campus water use was compared to LADWP water supplies in 2010 to evaluate whether there will be an adequate and reliable source of water for the 2002 LRDP and whether any infrastructure improvements would be necessary. In addition, a Water Supply Assessment was completed by the LADWP (LADWP 2002) to confirm whether there are adequate projected water supplies to serve the project. The Water Supply Assessment is provided in Appendix 10 of this EIR.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines, except where noted. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on water supply if it would result in any of the following:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Require new or expanded water entitlements and resources if there are not sufficient water supplies available to serve the project from existing entitlements and resources[31]

Effects Not Found to Be Significant

The Initial Study did not identify any Effects Not Found to Be Significant related to water supply; therefore, all potential water supply impacts are discussed in this EIR.

Impacts and Mitigation

Threshold	Would the project require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Impact LRDP 4.14-1 **Implementation of the 2002 LRDP would not require or result in the construction of new or expanded water treatment facilities, the construction of which could cause significant environmental effects. This is considered a *less-than-significant* impact.**

As noted in Section 4.14.1 (Environmental Setting), the LADWP is responsible for ensuring the treatment of all water supplies to the City of Los Angeles. As required by the California Department of Health Services, LADWP routinely monitors the water quality of each well that supplies potable water to the City. LADWP also operates the LAA Filtration Plant, and within the next ten years LADWP plans to invest $724 million in projects that would provide additional safety for City water supplies. As described in detail under Impact LRDP 4.14-2, there are sufficient water supplies from existing entitlements and resources to serve development under the 2002 LRDP, and the projected demand from the 2002 LRDP is considered in the demand projections utilized in the LADWP 2000 Urban Water Management Plan (UWMP). Further, the Water Supply Assessment prepared by LADWP for the proposed project and approved by the Board of Water and Power Commissioners of the City of Los Angeles on July 2, 2002, indicated that an adequate water supply exists for the project, as well as LADWP's other commitments in the region. In addition to the delivery of adequate water supplies, LADWP has also made the necessary commitments (i.e., planning and financial) to adequately treat all water supplied to the City of Los Angeles through 2020 (Year 2000 Urban Water Management Plan) within existing and/or planned water treatment facilities. Implementation of the 2002 LRDP would not

[31] This standard has been slightly modified for ease of comprehension.

require or result in the construction of new water treatment facilities or the expansion of existing facilities, and impacts would be less than significant. No mitigation is required.

Threshold	Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Impact LRDP 4.14-2 **Implementation of the 2002 LRDP would generate an additional demand for water, but would not require water supplies in excess of existing entitlements and resources or result in the need for new or expanded entitlements. This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP would increase campus water demand by 299,945 gpd,[32] an 11 percent increase over the 2002 LRDP baseline. Total campus water use in 2010, which is approximately 3.0 mgd, as shown in Table 4.14-1, includes existing water use, projected water use that would result from projects under construction, approved, and/or analyzed in an environmental document, and the projected water use that would result from implementation of the 2002 LRDP. The 1990 LRDP assumed a total water use of 4.59 mgd in 2005–06, which is higher than the current projection of 3.0 mgd for water use in 2010–11. UCLA has reduced water use by approximately 25 percent since the 1987–88 academic year by applying various water conservation practices previously described, which will continue through the 2002 LRDP planning horizon.

While the UC is not subject to municipal policies, such as local zoning ordinances and land use plans, various local and regional planning documents incorporate the campus into their projections, which is relevant to the determination that adequate water supplies exist to serve UCLA through the planning horizon of the 2002 LRDP. The projected water use for the 2002 LRDP has been taken into account in the demand projections provided in the 2000 UWMP. Although the UWMP did not list individual future projects in its water demand projections, population growth projections developed by the Southern California Association of Governments (SCAG) were used as the basis for the UWMP's water demand projections. Thus, if the growth proposed by the 2002 LRDP would occur at a rate equal to, or lower than that which was projected for the Westwood Community Plan Area and the City as a whole, which also relied upon SCAG data, it can be concluded that the projected water use for the 2002 LRDP have been accounted for in the demand projections of the 2000 UWMP.

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[32] The water demand attributable to the 2002 LRDP is calculated by multiplying 1,706,465 gsf by the campus water demand factor of 0.17577 gpd/gsf.

Review of planning studies confirm that growth anticipated under the 2002 LRDP will occur at a rate lower than that projected for both the Westwood Community Plan Area and for the entire City, and also lower than that projected in the demand analysis of the 2000 UWMP. UCLA population growth between 1990 and 2010 is projected to be 12 percent, or 0.6 percent per year. According to the 1996 General Plan Framework and the General Plan Framework Environmental Impact Report (EIR), the City of Los Angeles had a population of 3,485,399 in 1990 and was projected to have a population of 4,306,564 by 2010. This represents a total increase of 23.6 percent, or 1.2 percent per year. The General Plan Framework also anticipated that growth in the Westwood Community Plan Area, which includes the UCLA campus, between 1990 and 2010 would total 20.1 percent, or 1.0 percent per year. In addition, the 2000 UWMP also anticipated a similar growth rate in the City population. In the 2000 UWMP, the City population was projected to grow an average of 1.3 percent a year (LADWP UWMP, 2000). Consequently, it can be concluded that the water demand projections provided in the 2002 UWMP accommodate the water use projections for the 2002 LRDP.

A Water Supply Assessment (WSA) was prepared by LADWP to determine whether adequate supplies exist to provide water to the proposed project, and a supplementary analysis of water supplies was also prepared by the campus. The data used in the supplementary analysis consists of the composite projections of water production from existing or planned water sources. Both the WSA and the supplementary analysis are provided in Appendix 10 to this document and are summarized in the following paragraphs.

The LAA conveys water from the Owens Valley and Mono Lake, east of the Sierra Nevada, to the City of Los Angeles. The City of Los Angeles owns the rights to the water that is collected in the Owens Valley and also owns the LAA, the means by which the water is transported. According to the LADWP, the LAA has historically provided a large portion of the water needed to satisfy the City's water demands. Environmental concerns, however, forced the City to reduce its production from the LAA in 1989.

Local wells also produce water from three groundwater basins to which the City has rights: the San Fernando Basin, the Sylmar Basin, and the Central Basin. These sources are considered to be reliable and with the implementation of programs to store wet-year surplus water in these underground basins, they are projected to produce more water than in the past. The LADWP plans to maximize production from groundwater basins in the future in order to counter reductions in imported water supplies.

The MWD is also a major supplier of City water supplies from the Colorado River and the State Water Project. The Report on Metropolitan's Water Supplies (MWD 2002) indicates that MWD will be able to supply all of its constituent agencies' demands, including dry-year needs, while maintaining a water surplus.

LADWP also plans on increasing the usage of recycled water through the expansion of treatment facilities and transport infrastructure. Recycled water will be marketed for commercial, industrial, and irrigation uses.

According to the 2000 UWMP, there will be sufficient water supplies to serve all projected growth between 2000 and 2010, including the 2002 LRDP. The supplies will be adequate in both normal and dry years. Further, the WSA assessment indicated that LADWP can provide sufficient domestic water supplies to accommodate the development and growth associated with the 2002 LRDP. The projected water use for the 2002 LRDP is within the 20-year water demand growth projected in the 2000 UWMP update, and the water availability information used to develop the WSA was based on data provided in the UWMP. The Water Availability Assessment for UCLA was adopted by resolution of the Board of Water and Power Commissioners of the City of Los Angeles on July 2, 2002.

While water supplies are anticipated to be adequate to accommodate projected 2010 campus water use, and impacts are considered less than significant, PP 4.14-2(a) through PP 4.14-2(g) require continued water conservation practices for all campus uses.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.14-2(a)	*New facilities and renovations (except for patient care facilities in the Medical Center) shall be equipped with low-flow showers, toilets, and urinals.*
PP 4.14-2(b)	*Measures to reduce landscaping irrigation needs shall be used, such as automatic timing systems to apply irrigation water during times of the day when evaporation rates are low, installing drip irrigation systems, using mulch for landscaping, subscribing to the California Irrigation Management Information System Network for current information on weather and evaporation rates, and incorporating drought-resistant plants as appropriate.*
PP 4.14-2(c)	*The campus shall promptly detect and repair leaks in water and irrigation pipes.*
PP 4.14-2(d)	*The campus shall minimize the use of water to clean sidewalks, walkways, driveways and parking areas.*

PP 4.14-2(e) — *The campus shall avoid serving water at UCLA food service facilities except upon request.*

PP 4.14-2(f) — *The campus shall provide ongoing water treatment programs for campus cooling equipment by adding biodegradable chemicals to achieve reductions in water usage.*

PP 4.14-2(g) — *The campus shall educate the campus community on the importance of water conservation measures.*

Following PP 4.14-2(a) through PP 4.14-2(g) would ensure that this impact remains less than significant by continuing water conservation practices to reduce campus water use. No mitigation is required.

4.14.2 Solid Waste

Environmental Setting

Solid waste generated in the City of Los Angeles, which is estimated to be about 3,400 tons of refuse per day (Los Angeles County Sanitation Districts 2001), is disposed of at privately owned landfills. Table 4.14-2 (Existing Waste Disposal Facilities [2001]) shows the annual capacity, annual disposal quantity, and remaining permitted capacity for each of the private landfills used to dispose of solid waste generated in the City of Los Angeles. The six landfills previously owned and operated by the City of Los Angeles have been permanently closed (Fortune 2002).

Table 4.14-2 Existing Waste Disposal Facilities (2001)

Site	Location	Solid Waste Facility Permit Max. Daily Capacity (12/31/00) (tons)	Land Use Permit Max. Daily Capacity (tons)	Annual Capacity x 10^6 (tons)[1]	Annual Disposal Quantities x 10^6 (tons)[2]	Total Remaining Permitted Capacity x 10^6 (tons)[3]	Notes
Class III Landfills							
Antelope Valley #1	Palmdale	1,800	1,800	0.56	0.17	8.72	Expansion in the County unincorporated area included. The facility's proposed 5.78 million expansion fully permitted as of 6/12/1997
BFI/Sunshine Canyon	Sylmar	6,600	6,600	4.118	1.486	8.78	Expansion permit issued 12/8/1999; life expectancy 21 years (2020)
Bradley	Sun Valley	10,000	—	3.12	2.342	3.10	4/13/2007

Table 4.14-2 Existing Waste Disposal Facilities (2001)

Site	Location	Solid Waste Facility Permit Max. Daily Capacity (12/31/00) (tons)	Land Use Permit Max. Daily Capacity (tons)	Annual Capacity x 10^6 (tons)[1]	Annual Disposal Quantities x 10^6 (tons)[2]	Total Remaining Permitted Capacity x 10^6 (tons)[3]	Notes
Burbank	Burbank	240	—	0.075	0.04	3.39	Limited to City of Burbank's use only for waste collected by City's crews
Chiquita Canyon	Santa Clarita	6,000	6,000	3.744	1.375	19.79	Granted new land use permit (LUP) with expansion capacity of 12.5 million tons; LUP expires 8/1/2012
Lancaster	Lancaster	1,700	1,700	0.53	0.15	14.37	
Pebbly Beach	Catalina Island (Uninc.)	49	49	0.015	0.003	0.17	
Whittier (Savage Canyon)	Whittier	350	—	0.011	0.088	5.10	
	Total	46,839	29,349	18.463	10.119	93.75	
Waste-to-Energy							
Commerce Refuse to Energy Facility	Commerce	1,000	—	0.312	0.104	467	Assumed to remain operational during 15-year planning horizon
Southeast Resource Recovery Facility	Long Beach	2,240	—	0.699	0.438	1,602[4]	Assumed to remain operational during 15-year planning horizon
	Total	3,240	0	1.011	0.542	2,0695	

Out-of-County Disposal—Waste exported in 2000 by jurisdictions in Los Angeles County to Out-of-County Class III Disposal Facilities = 794.910 tons

1. Estimated by multiplying April 2001 solid waste facility permit daily capacity by operation (days/week) by 52 (weeks per year).
2. Disposal quantities based on actual tonnages reported by owners/operators of permitted solid waste disposal facilities to the DPW for period 1/1–12/31/2000.
3. Estimated remaining permitted capacity as of April 2001 based on landfill owner/operator responses to a written survey conducted by the DPW in March 2001 as well as a review of site-specific permit criteria established by land use agencies, local enforcement agencies, the California Regional Water Quality Control Board, and the South Coast Air Quality Management District.
4. Based on Solid Waste Facility Permit limit of 2,800 tons per week, expressed as a daily average, six days/week.
5. Based on EPA limit of 500,000 tons per year, expressed as a daily average, six days/week.

Source: Los Angeles County Countywide Integrated Waste Management Plan, 2000 Annual Report, Part II: Siting Element Assessment, Appendix E-2.1.

The City collects most of the residential solid waste generated in the City of Los Angeles, with a small amount handled by private contractors. Private contractors, however, collect commercial solid waste. Construction debris, including debris generated by demolition activities, is often transported by demolition contractors to privately owned and operated facilities that specialize in debris recycling and provide for landfilling of materials that cannot be recycled.

Currently, landfills operated by the County Sanitation Districts do not accept City-generated solid waste, which includes the solid waste generated at the UCLA campus. According to the Los Angeles County Sanitation Districts, insufficient permitted disposal capacity exists within the system serving Los Angeles County to provide for the County's long-term disposal needs (County Sanitation Districts, December 2001). A capacity shortfall could occur in Los Angeles County as early as 2003, depending on the economy, population growth, diversion rates, and permitted capacity available. This estimate was based on future disposal needs assuming a 50 percent diversion rate (by 2000) as required by the Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939). Additional capacity could be created within Los Angeles County through the expansions of the Puente Hills Landfill and the Sunshine Canyon Landfill. While this additional capacity is needed, the necessary permits and approvals have not yet been issued. Nearly all of the County's fourteen major (Class III) landfills have expansion proposals under review and the life expectancy of these landfills depends on their approval.

With respect to future disposal options, Los Angeles County Sanitation Districts has entered into a Joint Powers Agreement with the City to develop a transfer station in the central Los Angeles area that will allow Los Angeles access to desert rail-haul disposal facilities. In addition, the City and County continue to explore recycling options to manage future projected waste volumes in the region, and the campus participates in such efforts. Total refuse disposed of in 2000 citywide was 3.75 million tons, including waste disposed of in landfills and at waste-to-energy facilities, with a diversion rate of 58.8 percent[33] (City of Los Angeles AB 939 2000 Report).

Campus Solid Waste Handling and Minimization Efforts

UCLA contracts with a private solid waste disposal company to dispose of campus-generated solid waste. Under this contract, the private solid-waste hauler is responsible for all on-campus classroom facilities and residence halls, the medical center, the Student Union buildings, and the Associated Student food service areas, and all solid waste is transported to the American Waste Transfer Station in Gardena. Trash ultimately destined for landfill disposal is then transported to Chiquita Canyon Landfill in Santa Clarita. As reflected in Table 4.14-3 (Existing and Projected [2002 LRDP] Solid Waste Generation), which is provided in Section 4.14.2 (Solid Waste, Project Impacts and Mitigation, Analytic Method), the campus generated a total of 18,804 tons of solid waste in 2001, some of which was disposed of in local privately operated landfills and some of which was diverted from the solid waste stream through recycling or incineration. The campus disposed of a total of 9,026 tons of solid waste (or 48 percent of the total solid waste generated) in the local landfill in 2001–02 at a rate of approximately 752 tons per

[33] 2001 diversion data for the City of Los Angeles is not yet available.

month, including nonhazardous solid waste generated by the Center for Health Sciences (CHS). The remaining solid waste, consisting of 9,778 tons (or 52 percent), was diverted from the solid waste stream through recycling or incineration (i.e., solid waste to energy facilities). In fact, in 2001–02, approximately 22 percent of campus solid waste was recycled and approximately 30 percent of campus solid waste was transported to a SCAQMD-approved waste-to-energy plant in the City of Commerce for incineration. The incineration heat is used to generate electricity and the remaining ash is used for road base projects. One hundred percent of this waste stream is utilized.

On-campus waste separation for recycling has been implemented for white paper, mixed (colored) paper, cardboard, green waste, wood, metal, and rock. Campus-generated green waste is kept and used as mulch in campus landscape areas or sorted and transported to an off-campus composting facility. In addition, in 1999, a special beverage container (glass, plastics, and aluminum cans) recycling component was added to the program, and in 2001 a program to recycle inkjet and laser printer cartridges was started.

Regulatory Framework

Federal

With the exception of determining where disposal sites are located and operational standards, there are no applicable federal laws, regulations, or policies that pertain to solid waste.

State

At the State level, the management of solid waste is governed by regulations established by the California Integrated Waste Management Board (CIWMB), which delegates local permitting, enforcement, and inspection responsibilities to Local Enforcement Agencies. In 1997, some of the regulations adopted by the State Water Quality Control Board pertaining to landfills (Title 23, Chapter 15) were incorporated with CIWMB regulations (Title 14) to form Title 27 of the California Code of Regulations.

AB 939—California Integrated Waste Management Act

In 1989, the Legislature adopted the California Integrated Waste Management Act of 1989 (AB 939), which established an integrated waste management hierarchy that consists of the following in order of importance: source reduction, recycling, composting, and land disposal of solid waste. The law also required that each county prepare a new Integrated Waste Management Plan. The Act further required each city to prepare a Source Reduction and Recycling Element by July 1, 1991. Each source reduction element includes a plan for achieving a solid waste goal of 25 percent by January 1, 1995, and 50 percent by January 1, 2000. Senate Bill (SB) 2202 made a number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000.

Project Impacts and Mitigation

Analytic Method

The baseline solid waste generated on the UCLA campus includes solid waste associated with existing development and projected solid waste from projects that are under construction, approved, and/or for which an environmental document has been prepared in accordance with CEQA. As with water demand, solid waste generated as a result of implementation of the 2002 LRDP may be analyzed and calculated by one of the three methods previously described in Section 4.14.1 (Water Supply, Project Impacts and Mitigation, Analytic Method), which includes the use of standard generation rates,[34] a generation rate developed specifically for the campus, or a 2 percent annual growth factor. Based upon the analysis, it was determined that the use of a solid waste generation factor that is specific to the campus would provide the most accurate yet conservative results. The use of both a standard solid waste generation factor and a 2 percent annual growth factor resulted in the generation of less solid waste as compared to the use of a solid waste generation factor developed specifically for the campus.

The campus solid waste generation factor was calculated using existing development, including parking structures that could indirectly generate solid waste. The annual baseline solid waste generation was divided by the existing developed square footage to determine the generation factor, which was then applied to projects under construction, approved, and/or analyzed in an environmental document, as well as development anticipated under the 2002 LRDP, to calculate projected solid waste generation in 2010. Table 4.14-3 (Existing and Projected 2002 LRDP Solid Waste Generation) depicts this data.

To determine impacts on solid waste disposal resulting from implementation of the 2002 LRDP, the projected increase in the amount of solid waste generation was compared to the total anticipated remaining capacity at landfills that serve the UCLA campus in 2010.

[34] The County Sanitation Districts of Los Angeles County does not develop standard solid waste generation rates; however, the California Integrated Waste Management Board publishes solid waste generation rates.

Table 4.14-3 Existing and Projected 2002 LRDP Solid Waste Generation

	Development (gsf)	*Solid Waste Generation (tons per year)*
2001–02 Existing (actual)	20,086,746[1]	18,804
Estimated Under Construction, Approved, and/or Analyzed in an Environmental Document	2,944,435[1]	2,756[2]
Subtotal: 2002 LRDP Baseline	*23,031,181*	*21,560*
2002 LRDP	1,886,162[3]	1,766[3]
Total Solid Waste Generation	***24,917,343***	***23,326***

1. Includes parking structures.
2. Includes 1,706,465 gsf of proposed development and an allocation of 179,697 gsf of additional parking area in the event that 597 stack parking spaces are converted to permanent parking spaces (assuming a factor of 301 gsf per parking spaces) in conjunction with development under the 2002 LRDP.
3. The solid waste generation factor is calculated by dividing the total solid waste generated on campus by the total existing baseline square footage (e.g., 18,804 tons per year/20,086,746 gsf = 0.0009361 tons per year/square foot or 0.9361 tons per year/1,000 square feet). Therefore, the UCLA solid waste generation factor is 0.9361 tons per year/1,000 square feet.

Source: UCLA Capital Programs, 2002

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on solid waste if it would do any of the following:

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs[35]
- Fail to comply with applicable federal, State, and local statutes and regulations related to solid waste[36]

Effects Not Found to Be Significant

The Initial Study did not identify any Effects Not Found to Be Significant related to solid waste; therefore all potential solid waste impacts are discussed in this EIR.

[35] This standard has been re-written from a positive sense ("sufficient") to a negative sense ("insufficient") for ease of comprehension.

[36] This standard has been re-written from a positive sense ("Comply") to a negative sense ("Fail to comply") for ease of comprehension.

Impacts and Mitigation

Threshold	Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Impact LRDP 4.14-3 Implementation of the 2002 LRDP would not generate solid waste that exceeds the permitted capacity of landfills serving the campus. This is considered a *less-than-significant* impact.

In 2001, UCLA generated a total of 18,804 tons of solid waste, of which 9,026 tons (or 48 percent) were disposed of in the Chiquita Canyon Landfill and 9,778 tons (or 52 percent) were diverted from the solid waste stream through recycling or incineration (i.e., solid waste to energy facilities). Projects under construction, approved, and/or analyzed in an environmental document would result in the generation of approximately 2,756 tons of solid waste per year, and implementation of the 2002 LRDP would result in the generation of approximately 1,766 additional tons of solid waste per year. Annual projected solid waste generation at full implementation of the 2002 LRDP is 23,326 tons, which represents an 8.2 percent increase over the 2002 LRDP baseline. Total solid waste generated over the 2002 LRDP planning horizon is 186,608 tons, which is 23,326 tons per year multiplied by the eight years remaining in the 2002 LRDP planning horizon.

It is anticipated that approximately 22 percent of the total campus solid waste generation would continue to be recycled and approximately 30 percent would continue to be transferred to waste-to-energy facilities in Commerce and Long Beach. These facilities are assumed to remain operational during a 15-year planning horizon (2000–15, Los Angeles County Countywide Integrated Waste Management Plan), although utilization of waste-to-energy facilities is limited by the facilities' daily ceiling in the amount these facilities may take in for incineration, and these facilities do not accept any metal waste. Assuming continued implementation of all campus waste diversion and recycling programs, and at a 52 percent diversion rate, the total projected campus solid waste disposed of in landfills would total 89,572 tons over the planning horizon (or 11,197 tons per year).[37]

According to the City of Los Angeles General Plan Framework (City of Los Angeles 1996), the City will dispose of 6.5 million tons (before diversion) of solid waste in regional landfills in 2010, the year of projected build-out of the General Plan. Of this total, the Westside Planning Region (Southwest Los Angeles and West Los Angeles Planning Subregions) will contribute 1.1 million tons before diversion, and the West Los Angeles Community Planning Area (CPA) will contribute an estimated 256,106 tons

[37] This figure is determined by multiplying the total solid waste generated on campus (e.g., 23,326 tons per year) by 48 percent.

before diversion. Consistent with AB 939, which requires a diversion rate of 50 percent, these figures translate to 3.3 million tons per year for the City; 554,182 tons for the Westside Planning Region; and 128,053 tons for the West Los Angeles CPA.

The City of Los Angeles General Plan Framework EIR indicates that the solid waste disposal demand within the City (which includes UCLA) can be met through 2010 if expansion of the Chiquita Canyon Landfill and Lopez Canyon Landfill is approved. An expansion to the Chiquita Canyon Landfill was approved in 1998, extending the facility's land use permit to 2012 and increasing the landfill capacity to 23 million tons. While the City-owned Lopez Canyon Landfill has been closed, the landfill capacity was expanded to 19.2 million tons prior to its closure. Collectively, these landfills provide a total capacity of 42.2 million tons, which is in excess of the 39.7 million tons determined to be adequate to serve the City's solid waste disposal needs through 2010. As reflected in Table 4.14-2 (Existing Waste Disposal Facilities), the remaining permitted capacity in the Chiquita Canyon Landfill, which is the facility serving the UCLA campus, is approximately 20 million tons as of March 2001[38]. Therefore, because UCLA is included in the population and land use projections provided in the City of Los Angeles General Plan Framework EIR (as further described in Impact 4.10-1 in Section 4.10 [Population and Housing]), the solid waste generated by the campus is also included within the projections for the total solid waste generated in the City in 2010 (which is the same horizon year for the 2002 LRDP). Because sufficient capacity exists at the Chiquita Canyon Landfill and the solid waste disposal demand within the City can be met through 2010, which includes the campus, this impact is considered less than significant. Further, the UCLA campus has achieved a greater than 50 percent reduction of solid waste consistent with AB 939 (the Integrated Waste Management Act), and the campus remains committed to waste reduction and minimization efforts, as required by PP 4.14-3.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.14-3	*The campus shall continue to implement a solid waste reduction and recycling program designed to limit the total quantity of campus solid waste that is disposed of in landfills during the LRDP plan horizon.*

Following PP 4.14-3 would ensure that the impacts on solid waste from implementation of the 2002 LRDP remains less than significant by continuing its commitment to recycling and minimization of solid waste on campus, which reduces the campus contribution to solid waste disposed of in local landfills.

[38] All data taken from Los Angeles County Integrated Waste Management Plan, 2000 Annual Report; landfill owners survey March 2001.

Threshold	Would the project fail to comply with applicable federal, State, and local statutes and regulations related to solid waste?

Impact LRDP 4.14-4 **Implementation of the 2002 LRDP would comply with all applicable federal, State, and local statutes and regulations related to solid waste. This is considered a *less-than-significant* impact.**

As an entity created by the State Constitution, the University of California (UC) is exempt from local regulations pertaining to solid waste. However, as described in Regulatory Framework, the California Integrated Waste Management Act of 1989 (AB 939) requires that local jurisdictions divert at least 50 percent of all solid waste generated by January 1, 2000. As noted above, the UCLA campus has achieved a 52 percent diversion rate in 2001, and remains committed, through campus PP 4.14-3, to continue existing waste reduction and minimization efforts. Therefore, implementation of the 2002 LRDP would be consistent with AB 939, and a less-than-significant impact would occur. No mitigation is required.

4.14.3 Wastewater

Environmental Setting

This section evaluates the effects of development under the 2002 LRDP on campus and City wastewater conveyance systems and City wastewater treatment systems.

City of Los Angeles Wastewater Collection and Treatment Facilities

The City of Los Angeles provides wastewater (or sewer) transmission facilities from the campus to the City of Los Angeles' Hyperion Treatment Plant (HTP), located in Playa del Rey, directly west of the Los Angeles World Airport. The HTP treats wastewater from Santa Monica, Beverly Hills, Burbank, Culver City, El Segundo, Glendale, San Fernando, portions of Los Angeles County, twenty-nine contract agencies, and most of the City of Los Angeles. The neighboring cities and agencies contract with the City of Los Angeles to treat their wastewater at the City's facilities.

The HTP has a design capacity of 480 million gallons per day (mgd) and currently treats an average of 355 mgd to primary and secondary treatment standards, using three levels of filtration treatment before discharging the treated wastewater five miles offshore. The HTP currently operates at 75 percent of capacity (City of Los Angeles 2002). With the implementation of improvements currently under construction or proposed for the Hyperion Treatment System, it is anticipated to have adequate treatment capacity through the year 2010. While existing capacity remains at the HTP, and is anticipated to remain in the future, the City limits wastewater disposal from individual private projects to 5 mgd. The City has also taken steps to improve the quality of the discharge into Santa Monica Bay.

A tertiary wastewater treatment facility on Terminal Island in San Pedro treats an average of 16 mgd of wastewater from the Los Angeles Basin. Originally built in 1935, the Terminal Island Plant has been providing effluent treatment since 1977. It currently discharges treated water into Los Angeles Harbor, but with the completion of the Advanced Wastewater Treatment Facility, a portion of this water can be used for groundwater recharge and industrial and irrigation purposes (Year 2000 Urban Water Management Plan, LADWP).

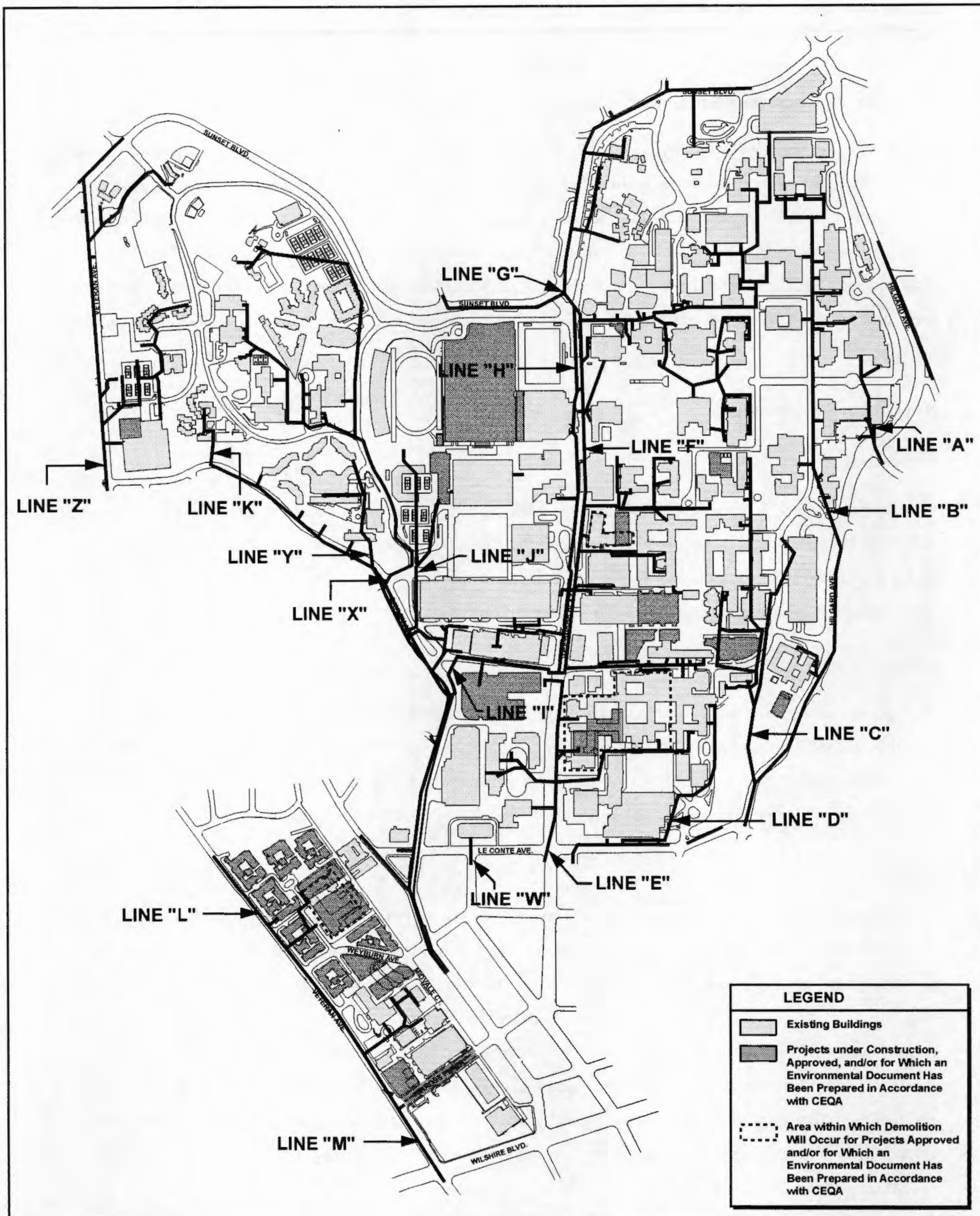
UCLA Wastewater Disposal System

UCLA's Facilities Management Department maintains the campus sanitary sewer system. A number of separate sewer lines, generally running north/south, service campus buildings. The pipes in the system vary in size from six to 21 inches in diameter. A primary sewer line that conveys discharges from off-campus areas north of UCLA enters the campus system through the City connection at Sunset Boulevard and Westwood Plaza. Minor lateral sewer lines along the periphery of the campus connect a few campus buildings directly to off-campus sewer mains. Figure 4.14-1 (Campus Sewer System) shows the general location of the campus sewer lines.

The UCLA Capital Programs Department determines utility needs and plans improvements to the sanitary sewer system. System conveyance enhancements are made, as appropriate, in conjunction with project-specific development requirements. The UCLA Office of Environment, Health & Safety (EH&S) ensures compliance with industrial wastewater regulations and oversees a campus-wide program that teaches and enforces procedures for proper industrial wastewater disposal.

Wastewater generation is directly related to water use. As previously described in Section 4.14.1 (Water Supply), approximately 80 to 85 percent of water used by the campus is related to indoor use with the greatest portion attributable to mechanical air conditioning (cooling) equipment. Of the water used for cooling, roughly one-third is discharged as wastewater (after being recycled through the chiller/cogeneration system), with the remaining two-thirds lost to evaporation. Approximately 15 to 20 percent of water use is attributable to irrigation, which does not enter the wastewater system.

A sewer system analysis conducted by RBF Consulting of Irvine, California, measured the average flows (at 15-minute intervals) for fifteen sewer lines on campus. Flow for the entire campus system was measured at an average of 1.85 million gpd over a 7-day period in early June 2002.



Not to Scale

SOURCE: RBF Consulting

10328-07

EIP ASSOCIATES

FIGURE **4.14-1**

Campus Sewer System

Campus Wastewater Reduction Efforts

As previously described in Section 4.14.1 (Water Supply), the campus has implemented water conservation programs that have resulted in substantial decreases in water use. Because wastewater generation is directly related to water use, the reduction in water use is estimated to have resulted in an associated decrease in wastewater generation of approximately 20 percent assuming that 80 percent of water use is discharged into the sewer system (e.g., if water use has decreased approximately 25 percent, then wastewater generation has been reduced by approximately 20 percent, which is 80 percent of 25 percent).

Regulatory Framework

Federal

The major piece of federal legislation dealing with wastewater is the Federal Water Pollution Control Act, which is designed to restore and preserve the integrity of the nation's waters. In addition to the Federal Water Pollution Control Act, other federal environmental laws have a bearing on the location, type, planning, and funding of wastewater treatment facilities.

State

The quality of effluent that the HTP can discharge is established by the Los Angeles Regional Water Quality Control Board (RWQCB) through an NPDES permit that specifies Waste Discharge Requirements (WDRs). Operation of the HTP is subject to regulations set forth by the California Department of Health Services (DHS) and State Water Resources Control Board (SWRCB).

Local

The Industrial Waste management Division (IWMD) of the Bureau of Sanitation, Department of Public Works, protects the local receiving waters by regulating industrial wastewater discharge to the City's sewer system and by administering and enforcing the Los Angeles Municipal Code, as well as federal regulations. All of the treatment plants operated by the City of Los Angeles are subject to the requirements and limitations of the National Pollutant Discharge Elimination System (NPDES) permits, which are issued by the Regional Water Quality Control Board. NPDES permits are required for all of the facilities (including sewage treatment plants) discharging to navigable waters or surface waters of the state. In order to meet and maintain the requirements of the NPDES permits, the City, through the IWMD, regulates industries discharging to the sewer system.

Project Impacts and Mitigation

Analytic Method

A sewer system analysis conducted by RBF Consulting of Irvine, California, measured the average flows (at 15-minute intervals) for fifteen sewer lines on campus. Flow for the entire campus system was measured at an average of 1.85 million gpd over a 7-day period in early June 2002 (RBF Consulting, July 10, 2002). Flow monitoring results were based upon field measurements taken by ADS Environmental Services at various manhole locations on campus.

To determine campus wastewater generation for future development, a wastewater generation factor was derived by dividing the measured sewer flows by the total gross square footage of occupied campus facilities excluding parking structures. Thus, the campus wastewater factor of 0.13360 gpd/gsf, which is the actual measured wastewater generation divided by the campus occupied gsf, is used to estimate future campus wastewater generation. This factor was then applied to the square footage of projects under construction, approved, and/or analyzed in a certified environmental document, as well as development anticipated under the 2002 LRDP, to estimate future wastewater generation by the campus. Table 4.14-4 (Existing and Projected 2002 LRDP Wastewater Generation) depicts this data.

Table 4.14-4 Existing and Projected 2002 LRDP Wastewater Generation

	Development (gsf)[1]	*Wastewater (gpd)*
2001–02 Existing (actual)	13,881,695	1,854,675
Under Construction, Approved, and/or Analyzed in an Environmental Document (estimated)	1,505,435	201,126[2]
Subtotal: 2002 LRDP Baseline	*15,387,130*	*2,055,801*
2002 LRDP (estimated)	1,706,465	227,984[2]
Total	***17,093,595***	***2,283,785***

1. Excludes parking structures.
2. The wastewater generation factor is calculated by dividing the actual measured wastewater generation by the campus occupied square footage (e.g., 1,854,675 gpd/13,881,695 gsf = 0.13360 gpd/gsf). Therefore, the UCLA wastewater generation factor for projection purposes is 0.13360 gpd/gsf.

Source: UCLA Capital Programs, 2002

To determine wastewater impacts associated with implementation of the 2002 LRDP, estimated future wastewater flows shown in Table 4.14-4 are compared to the remaining capacity of the conveyance and treatment systems serving the campus to determine whether sufficient capacity exists and/or whether there is the need for additional wastewater treatment systems. In addition, a Sewer Availability Report was obtained from the City of Los Angeles Department of Public Works to confirm whether adequate sewer capacity is available in the City system to accommodate estimated campus wastewater discharges associated with 2002 LRDP development. The Sewer Availability Reports are provided in Appendix 10 of this EIR.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2002 CEQA Guidelines. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on wastewater conveyance systems or treatment facilities if it would do any of the following:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments[39]

Effects Not Found to Be Significant

The Initial Study did not identify any Effects Not Found to Be Significant with regard to wastewater; therefore, all potential impacts to wastewater treatment and capacity are discussed in this EIR.

Impacts and Mitigation

Threshold	Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Impact LRDP 4.14-5 **Implementation of the 2002 LRDP would not exceed wastewater treatment requirements of the Regional Water Quality Control Board. This is considered a *less-than-significant* impact.**

Impacts related to the treatment of sanitary sewage is provided in Impact LRDP 4.14-7 of Section 4.14 (Utilities and Service Systems) of this document, while impacts associated with stormwater quality are addressed in Impact LRDP 4.7-1 and Impact LRDP 4.7-7 of Section 4.7 (Hydrology and Water Quality) of this document.

The Industrial Waste Management Division (IWMD) of the City of Los Angeles Bureau of Sanitation, Department of Public Works, requires an industrial wastewater permit for industrial facilities and certain

[39] This standard has been re-written to change it from a positive sense ("has adequate capacity") to a negative sense ("has inadequate capacity") for ease of comprehension

commercial facilities that plan to discharge industrial wastewater to the City's sewage collection and treatment system. The purpose of the industrial wastewater permit program is to ensure the City's compliance with the NPDES program, as administered by the RWQCB, for all facilities discharging to navigable waters of surface waters of the state, including sewage treatment plants.

UCLA has received, and complies with, all provisions of its industrial wastewater permits, which regulate discharges from dining facilities (with a seating capacity of over 150), the cogeneration facility, and laboratory uses. In addition, UCLA will continue to obtain and comply with all provisions of industrial wastewater permits required for projects developed as a result of implementation of the 2002 LRDP. Through compliance with the City's industrial wastewater permit program, which is administered subject to the requirements and limitations of the NPDES program, as enforced by the Regional Water Quality Control Board, the 2002 LRDP will not result in an exceedance of the Board's wastewater treatment requirements.

Further, as analyzed in detail in Section 4.7 (Hydrology), the NPDES permit system also regulates both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the State (e.g., stormwater systems). For point source discharges, each NPDES permit contains limits on allowable concentrations and emissions of pollutants contained in the discharge. For nonpoint source discharges, Phase I of the NPDES program establishes a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment for all areas of ground disturbance associated with construction activities that exceed five acres. UCLA will be required to apply for a Phase II permit by March 10, 2003, which regulates all areas of ground disturbance associated with construction activities that exceed one acre, and must be in full compliance with the Phase II regulations (e.g., full development and implementation of a Stormwater Management Program) within five years of the date the permit is issued. The campus would be required to comply with all applicable wastewater discharge requirements issued by the SWRCB and RWQCB. Therefore, implementation of the 2002 LRDP would not exceed applicable wastewater treatment requirements of the Regional Water Quality Control Board with respect to discharges to the sewer system or stormwater system. A less-than-significant impact would occur, and no mitigation is required.

Threshold	Would the project require or result in the construction of new or expanded wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Impact LRDP 4.14-6 Implementation of the 2002 LRDP could require the construction of new or expanded wastewater conveyance systems, the construction of which would not cause significant environmental effects. This is considered a *less-than-significant* impact.[40]

On-Campus Sewer Conveyance System

Development under the 2002 LRDP is anticipated to generate an estimated additional average wastewater flow of 227,984 gpd, an approximate 11 percent increase over the 2002 LRDP baseline including projects under construction, approved, and/or analyzed in an environmental document, as shown in Table 4.14-4. The 2002 LRDP Sanitary Sewer Study conducted by RBF (Sewer Study) evaluated the existing capacity in the on-campus sewer lines shown in Figure 4.14.1 and estimated the increased average and peak flows (using a peaking factor of 2.8) to each line from projects under construction, approved and/or analyzed in an environmental document, as well as projected 2002 LRDP wastewater generation. The flow capacities of the campus sewer pipes were determined based on the ratio of flow depth to pipe diameter (defined as the d/D ratio). According to the Bureau of Engineering Sewer Manual, as well as general engineering practice, the d/D ratio should not exceed 0.5 (or 50 percent) for new sewer systems and 0.75 (or 75 percent) for existing sewer systems. The Sewer Study determined that the estimated future additional wastewater flows for each of the pipes are well within the allowable tolerances for the specified pipe diameters, and that the projected additional flows would not exceed the maximum d/D ratios specified for each pipe. Therefore, based on the Sewer Study, the on-campus sewer lines that would receive additional flows associated with 2002 LRDP development, including projects under construction, approved, and/or analyzed in an environmental document, have adequate remaining wastewater conveyance capacity.

Because specific projects are not identified as part of the 2002 LRDP and, therefore, the sites for potential development are as yet unknown, construction of specific buildings, depending on location and other factors, could potentially affect the adequacy of the campus sewer pipes to accommodate increased flows. In this regard, it is possible that new or expanded on-campus lateral lines or service connections may be required for specific projects developed under the 2002 LRDP. The ability of sewer trunk systems to support future facilities does not account for restrictions or limitations in isolated pipes or

[40] Impact LRDP 4.14-7 addresses the adequacy of the Hyperion Wastewater Treatment Plant, whereas this impact discussion addresses the adequacy of the wastewater conveyance system.

reaches due to pipe size, slope, and/or condition, and modifications may be necessary to extend utility services to the building connections. Depending upon the proposed development, a site-specific sewer evaluation, including flow monitoring and modeling, may be required as part of the project design to determine the adequacy of the existing sewer pipe capacity in the affected on-campus lines. PP 4.14-6 requires that an evaluation of the sewer conveyance capacity be undertaken in conjunction with development proposals in order to ensure that connections are adequate and capacity is available to accommodate estimated flows. In addition, because wastewater generation is correlated with water usage, continued water conservation practices would reduce the volume of wastewater generated. Implementation of previously described PP 4.14-2(a) through PP 4.14-2(g) emphasizes a variety of water conservation practices, which would further reduce wastewater generation and utilization of conveyance capacity. The impact of development under the 2002 LRDP to the campus wastewater conveyance system would be less than significant, and no mitigation is required.

The construction impacts anticipated to result from implementation of the 2002 LRDP are comprehensively analyzed in Section 4.2 (Air Quality), Section 4.9 (Noise and Vibration), and Section 4.13 (Transportation/Traffic) of this EIR. While significant, unavoidable construction impacts would occur in each of these issue areas as a result of construction under the 2002 LRDP, the only specific wastewater improvement proposed as part of the LRDP (specifically, as part of the NHIP), by itself, is not considered likely to result in significant construction-related impacts.

As described above, existing sewer lines would be extended to the NHIP and would not require substantial demolition—only removal of existing asphalt surfaces—nor would it require significant excavation, as the sewer lines are located relatively near surface given the topography of the project site in relation to the remainder of the campus (e.g., sewer lines are typically located nearer the ground surface at higher elevations). Consequently, following 2002 LRDP EIR PPs 4.2-2(a), which would be followed throughout the planning horizon of the 2002 LRDP, would require implementation of fugitive dust control measures according to SCAQMD Rule 403, would further reduce any air quality impact associated with grading activities to a less-than-significant level.

Construction activities would be limited, and construction traffic would, therefore, also be limited and considered less than significant. This would limit emissions from construction equipment to less-than-significant levels. Implementation of 2002 LRDP EIR PP 4.2-2(b) and 2002 LRDP EIR PP 4.2-2(c) would require maintenance and tuning of construction engines, as well as the use of existing electricity infrastructure on the campus, rather than generators powered by internal combustion engines. Following these programs, practices, and procedures would ensure that construction–related impacts to air quality would be less than significant. This less-than-significant impact would be further reduced with implementation of 2002 LRDP EIR MMs 4.2-2(a) and 4.2-2(b), which have been incorporated into the proposed project and would require that all construction equipment not in use for more than five minutes be turned off and would also require, to the extent feasible, the use of alternative fuel construction equipment.

The limited amount and type of construction activity, the minimal demolition, and the low amount of construction traffic would ensure that construction-related noise effects would also be less than significant with respect to on and off campus uses. In addition, following 2002 LRDP EIR PPs 4.9-8(a) to 4.9-8(d), and 4.9-9 would limit, to the extent feasible, hours of construction to nonsensitive time periods, require muffling of construction equipment, placement of construction staging areas away from sensitive receptors, and coordination with other campus uses and the academic calendar regarding construction activities as well as coordination with off-campus uses. These programs, practices, and procedures would ensure that construction-related noise generated by modification of the NHIP sewer lines would remain less than significant.

Construction of the wastewater component of the NHIP alone would be less than significant, and no specific mitigation would be required. However, all relevant 2002 LRDP MMs and PPs related to construction occurring under the LRDP shall be applied to reduce overall construction impacts to the maximum extent feasible. Further, as specific projects are proposed during the LRDP planning horizon, which may include wastewater improvements, UCLA would evaluate potential environmental impacts and prepare all required documentation in full accordance with CEQA.

Off-Campus Sewer Conveyance System

The City of Los Angeles Department of Public Works maintains the sanitary sewer system into which the campus system discharges. In order to determine the adequacy of the City's sewer conveyance system to accept additional wastewater flows from the campus, the Sewer Study evaluated the estimated development proposed under the 2002 LRDP, as well as projects that are under construction, approved, or have been previously analyzed in an environmental document, utilizing sewer generation factors that were provided by the City of Los Angeles, which exceeds the campus' wastewater generation factor, thus providing a conservative analysis. The evaluation was performed for each campus sewer line that feeds into the City system. These study results were provided to the City of Los Angeles Department of Public Works to confirm whether the City lines were adequate to receive estimated additional flows from the campus. A Sewer Availability Report was obtained from the City of Los Angeles Department of Public Works for each of the sewer lines into which the campus discharges. These reports, which are provided in Appendix 10 of this EIR, indicate that adequate sewer capacity is available in the City system to accommodate development under the 2002 LRDP, as well as projects that are under construction, approved, or have been previously analyzed in an environmental document. Therefore, the impact of development under the 2002 LRDP to the City's wastewater conveyance system would be less than significant, and no mitigation is required.

The following campus program, practice, and procedure shall be continued throughout the 2002 LRDP planning horizon:

PP 4.14-6 *As part of the design process for proposed projects, an evaluation of the on-campus sewer conveyance capacity shall be undertaken, and improvements provided if necessary in order to ensure that connections are adequate and capacity is available to accommodate estimated flows.*

Following PP 4.14-6 would ensure that impacts to the sewer conveyance system would remain less than significant by determining the adequacy of the existing sewer lines to accommodate new development and provide new or expanded lines, if necessary. No mitigation is required.

Threshold	Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Impact LRDP 4.14-7 **Implementation of the 2002 LRDP would not increase wastewater generation such that treatment facilities would be inadequate to serve the project's projected demand in addition to the provider's existing commitments. This is considered a *less-than-significant* impact.**

Development under the 2002 LRDP would not generate wastewater that would exceed the capacity of the HTP wastewater treatment system in combination with the provider's existing service commitments. Implementation of the proposed 2002 LRDP would increase the amount of on-campus building space and the on-campus population, which would result in the generation and discharge of additional wastewater requiring treatment at the HTP. The HTP has a design capacity of 480 mgd, but only treats about 355 mgd, or 75 percent of its capacity (City of Los Angeles 2002). With the improvements currently under construction or proposed for the Hyperion Treatment System, the system is anticipated to have adequate treatment capacity through the year 2010. In fact, according to the City of Los Angeles General Plan Framework EIR (City of Los Angeles 1996), the HTP will treat 408 mgd in 2010, leaving a surplus of approximately 72 mgd. Therefore, the additional 227,984 gpd generated by implementation of the 2002 LRDP can be adequately treated by the HTP. Continuation of campus water conservation measures outlined in PP 4.14-2(a) through PP 4.14-2(g) would result in an associated decrease in wastewater generation. This impact would be less than significant, and no mitigation is required.

4.14.4 Energy

Environmental Setting

Campus energy use includes electricity generated by the on-campus Energy Systems Facility (ESF), electricity purchased from the LADWP, and natural gas purchased from Sempra Energy, GSF Energy, and the Southern California Gas Company (SCGC).

Electricity

In January 1994, the ESF began providing electricity to the UCLA campus with two combustion turbine generators burning a combination of methane gas from the nearby Mountaingate Landfill and natural gas. The facility simultaneously produces electricity and steam for the entire campus, as well as chilled water for air conditioning and cooling activities in many buildings on the main campus. The ESF produces over 250 million kilowatt-hours (kWh) of electricity annually, while the central cogeneration heating and chiller plant provides in excess of 730,000 million British thermal units (mmBtu) of heating energy in the form of steam and 870,000 mmBtu of air conditioning annually. No expansion of the ESF is currently planned. Some individual buildings on the northern portion of the main campus have stand-alone chillers and heating, ventilation, and air conditioning (HVAC) systems.

The simultaneous production of electricity and steam greatly increases the efficiency of campus energy use and improves the capacity and reliability of the campus electrical generation system. Operation of the facility has reduced the campus long-term utility expenditures and dependence upon electricity provided by the LADWP. The ESF can currently provide 80 percent of the electrical needs of the campus peak winter demand and 75 percent of the campus peak summer demand. Remaining electrical needs are supplied by the LADWP, and complete campus utility connections with the LADWP have been maintained for emergencies and peak energy demands.

The LADWP connections serve the majority of the campus through an electric substation located immediately north of the ESF. The substation provides electric power to new distribution switchboards located in the ESF and the output of the ESF electric generators are also connected to the distribution switchboards. The LADWP and the ESF are both continually connected to the campus so that if one fails, the other would continue to supply the campus and the hospital with electricity. Emergency back-up electricity is also available in many campus buildings through existing stand-by diesel-powered generators.

The Thermal Energy Storage System (TES) is an extension of the campus ESF and stores chilled water produced during low energy cost periods (nights) for use during high energy cost periods (days). This system, which became operational in August 2002, saves energy costs while increasing the efficiency and capacity of the campus chilled water production system to ensure a continuous supply of chilled water to essential campus facilities.

Within the ESF is the Emergency Services Building (ESB), designed to the standards of the Office of Statewide Health Planning and Development. The ESB routinely supplies the campus with steam and chilled water but can be configured in emergencies to be dedicated to supporting the hospital facilities.

The School of Engineering and Applied Sciences (SEAS) Chiller Plant is located adjacent to the northeast portion of Parking Structure 9. The SEAS Chiller Plant consists of four belowground chillers and associated cooling towers. This Chiller Plant is currently a back-up plant for the ESF. With commissioning of the TES tank in August 2002, the SEAS Chiller Plant is used primarily as an emergency back-up facility unless and until an increase in campus consumption requires its operation.

Electricity currently accounts for about 40 to 45 percent of all campus energy use. Monthly electricity usage on campus is relatively constant during the course of a year. The 2001–02 baseline electricity consumption for the campus is 384,564,998 kWh.

Campus Electricity Conservation Efforts

The campus has instituted an extensive program of energy conservation measures. These include, but are not limited to, renovating HVAC systems to improve energy efficiency, increasing the use of electronic building management systems to control energy use, increasing the use of high-efficiency motors with variable-speed drives, and replacing direct expansion air conditioners with connections to the central chilled water system. A campus project scheduled to be completed in early 2003 will retire or place on standby seven local HVAC water chillers by connecting additional buildings to the central chilled water system. Conservation efforts are also expected to involve improved HVAC systems with microprocessor-controlled energy management systems.

The University has instituted lighting conservation measures in order to conserve electricity. Lighting conservation efforts include installation of occupancy sensors to automatically turn off lights when not in use, lighting reflectors, electronic ballasts, and high efficiency lamps. The campus is nearing completion of the conversion of all exterior lighting to high-pressure sodium fixtures. In addition, many in-building lighting systems are being replaced over time with up-to-date energy-saving equipment such as automatic photosensitive switching equipment.

Natural Gas

Sempra Energy and SCGC supply natural gas, while GSF Energy supplies landfill gas to the campus. All of the landfill gas and the majority of the natural gas are used to power the campus ESF, which in turn provides electricity and steam to the majority of the campus and chilled water to many buildings on the main campus. Campus cafeterias, laboratories, and residence halls also use natural gas. SCGC supply lines deliver natural gas to the campus. The 2001–02 baseline natural gas consumption for the campus is approximately 3,662,361 mmBtu of gaseous fuel.

Sempra Energy is currently the largest campus supplier of natural gas commodity and delivers about 90 percent of the natural gas used by the campus, all of which is used to fuel the campus cogeneration facility. During 2001–02, Sempra Energy supplied about 3,100,000 mmBtu of natural gas.

GSF Energy, Inc. sells landfill gas to UCLA, and supplies about 10 percent of the gas fuel used by the campus. Landfill gas is supplied only to fuel the gas turbine generators in the ESF. In 2001–02, 258,000 mmBtu were delivered to UCLA via a dedicated piping system originating at the Mountaingate Landfill, which is located northwest of the campus near the Sepulveda Pass. However, the campus anticipates depletion of the landfill gas supply in 2004. When the landfill gas field is depleted, the campus will purchase additional natural gas from a natural gas supplier. Because the energy yield of landfill gas is about one half that of natural gas, about one half of the volume of landfill gas provided by GSF Energy would be required to provide an equivalent amount of energy.

SCGC currently provides about one percent of the natural gas used by the campus, or about 120,000 mmBtu, during 2000–01. Natural gas from SCGC is used directly by some campus structures for heating, as well as for cooking and laboratory uses. The campus is located in SCGC's Pacific Region, which includes all coastal areas between Long Beach and Ventura. The primary source of natural gas supplied to this SCGC service area is an underground storage field in Playa del Rey, within the City of Los Angeles. The availability of natural gas is based upon gas supplies and regulatory policies.

Regulatory Framework

Federal

No federal policies related to energy would apply to the 2002 LRDP.

State

California Code of Regulations Title 24

New buildings in California are required to conform to energy conservation standards specified in Title 24 of the California Code of Regulations (CCR). The standards establish "energy budgets" for different types of residential and nonresidential buildings, with which all new buildings must comply. The energy budget has a space-conditioning component and a water-heating component, both expressed in terms of energy (BTU) consumed per year. The regulations allow for trade-offs within and between the components to meet the overall budget.

Energy consumption of new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the CCR. The efficiency standards apply to new construction of both residential and nonresidential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building or individual agency permit and approval processes. It is UC policy to meet Title 24 for all new buildings.

Project Impacts and Mitigation

Analytic Method

Electricity

To determine whether development under the 2002 LRDP would result in impacts on electricity supplies, the projected increase in electricity demand was analyzed and calculated using three methods as described in Section 4.14.1 above: (1) standard demand factors based on type of land use, (2) a per-square-foot consumption rate calculated from current demand and campus development, and (3) a 2 percent annual growth rate.

Individual consumption factors based on use were not employed for the analysis because demand factors appeared to understate use. The 2 percent annual growth rate provided a similar but slightly lower rate than a per-square-foot calculation. The campus Energy Services Department has stated that a per-square-foot factor would be the most accurate representation of campus electricity demand, as it more closely tracks demand associated with actual campus development. Also, the per-square-foot rate resulted in slightly higher demand at full implementation of the 2002 LRDP than a two percent annual increase, and would provide a slightly more conservative analysis. Table 4.14-5 (Existing and Projected 2002 LRDP Electricity Demand) provides electricity demand associated with existing campus development, development that is under construction, approved, and/or analyzed in an environmental document, and all development assumed in the 2002 LRDP. As noted in the table, the demand factor was calculated using baseline development including parking structures, which require nighttime lighting.

Table 4.14-5 Existing and Projected 2002 LRDP Electricity Demand

	Total Development (gsf)	Total Electricity Consumed (kWh/yr)
2001–02 Existing Use (actual)	20,086,746[1]	335,400,000
Under Construction, Approved, and/or Analyzed in an Environmental Document (estimated)	2,944,435	49,164,998[2]
Subtotal: 2002 LRDP Baseline	*23,031,181*	*384,564,998*
2002 LRDP (estimated)	*1,886,162[2]*	*31,494,673[3]*
Total	***24,917,343***	***416,059,377***

1. Includes parking structure gsf to account for nighttime lighting.
2. Includes 1,706,465 gsf of proposed development and an allocation of 179,697 gsf of additional parking area in the event that 597 stack parking spaces are converted to permanent parking spaces (assuming a factor of 301 gsf per parking spaces) in conjunction with development under the 2002 LRDP.
3. Demand factor: 335,400,000 kWh/yr/20,086,746 gsf=~16.6976 kWh/gsf/yr

Source: UCLA Capital Programs, 2002

To determine impacts on electricity supply resulting from implementation of the 2002 LRDP, the campus provided the projected increase in campus electricity demand to LADWP to evaluate whether there will be an adequate and reliable source of electricity for the 2002 LRDP and whether any infrastructure improvements would be necessary.

Natural Gas

To determine whether development under the 2002 LRDP would result in impacts on natural gas supplies, the projected increase in natural gas demand was analyzed and calculated using three methods as described in Section 4.14.1 above: (1) standard demand factors based on type of use, (2) a per-square-foot demand rate calculated only from the portion of campus demand that would grow with campus development, and (3) a 2 percent annual growth rate.

Individual demand factors based on use were not employed for the analysis because demand factors appeared to significantly understate use. The 2 percent annual growth rate also does not accurately portray the pattern of campus energy use or conservation because it assumes a constant, regular increase in natural gas consumption that would not occur: as described above in Electricity, the cogeneration facility would not be expanded to provide additional electrical generation capacity, but would only burn additional natural gas for increased steam demands as new structures are built and require heat. Consequently, the campus Energy Services Department has stated that a per-square-foot factor, based only on the uses of natural gas that would increase, would be the most accurate representation of campus natural gas use, as it more closely tracks demand associated with new or expanded development of new structures in terms of direct use of natural gas (heating, cooking, laboratory use).

Over the planning horizon for the 2002 LRDP, the campus demand for gaseous fuel would not increase in the same manner as other utilizes. The demand for other utilities, such as electricity, would grow as a function of the total campus use of the utilities; that is, all uses for electricity (such as lights or HVAC) would increase as development occurs under the 2002 LRDP. For this reason, increases in demand for other utilities (such as electricity), as discussed above, would increase as a function of total current campus use, and the demand factor is calculated by dividing actual campus use by total campus square footage, and then applying that factor to proposed square footage to determine the growth in demand.

However, because the cogeneration facility is not planned for expansion as part of implementation of the 2002 LRDP, the entire increase in the demand for electricity would accommodated by LADWP, as described above in Electricity. Consequently, the primary use of natural gas by the cogeneration facility—the generation of electricity—is not anticipated to increase under the 2002 LRDP, and development under the 2002 LRDP would increase consumption of natural gas by the campus for only the following uses:

- Direct use of natural gas for heating, laboratory uses, and cooking
- Indirect use of natural gas for heating (steam from the cogeneration facility)

As shown in Table 4.14-10 (Existing and Projected [2002 LRDP] Natural Gas Demand), actual campus use of gaseous fuel in 2001–02 was approximately 3,478,000 mmBtu. Of this quantity, approximately 120,000 mmBtu were used directly by campus buildings in 2001–02 for direct heating, cooking, and laboratory uses; and the cogeneration facility used approximately 730,000 mmBtu in 2001–02 to provide steam for heating campus buildings. Increases in consumption of natural gas by the campus would, therefore, only occur as a function of the two uses and quantities listed above, or a total of 850,000 mmBtu (120,000 mmBtu of direct use, plus 730,000 mmBtu of indirect/cogeneration use), rather than as a function of total campus natural gas consumption. The demand factor for natural gas is, therefore, calculated by dividing 850,000 mmBtu by 13,881,695 gsf, which yields a factor of 0.12246 yr/gsf/yr.

To determine impacts on natural gas supply resulting from implementation of the 2002 LRDP, the campus provided the projected increase in campus natural gas demand to SCGC and Sempra Energy to evaluate whether there will be an adequate and reliable source of natural gas for the 2002 LRDP and whether any infrastructure improvements would be necessary. GSF Energy was not consulted, because the supply of gaseous fuel provided by GSF is anticipated to expire, and is anticipated to be replaced by purchases from another provider. The estimates of projected increases provided to SCGC and Sempra Energy assumed the loss of GSF Energy as a gas supplier. This is also reflected in Table 4.14-6 (Existing and Projected 2002 LRDP Natural Gas Demand).

Table 4.14-6 Existing and Projected 2002 LRDP Natural Gas Demand

	Total Development (gsf)[1]	*Total Natural Gas Consumed (yr/yr)*
Existing gas supplied by SCGC (2001–02)	13,881,695	120,000
Existing gas supplied by GSF Energy (2001–02)	N/A	258,000
Existing gas supplied by Sempra Energy (2001–02)	N/A	3,100,000
Subtotal: 2001–02 Actual Use	*13,881,695*	*3,478,000*[2]
Estimated Under Construction, Approved, and/or Analyzed in an Environmental Document (SCGC gas only)	1,505,435	184,361[2]
Subtotal: 2002 LRDP Baseline	*15,387,130*	*3,662,361*
Estimated loss of gas supplied by GSF Energy	N/A	-258,000
Estimated increase in gas supplied by Sempra Energy	N/A	258,000
Estimated 2002 LRDP	1,706,465	208,980
Total	***17,092,665***	***3,871,341***

1. Excludes parking structure gsf.
2. Demand factor: (850,000 mmBTU/yr/13,881,695 gsf) = ~0.12246 yr/gsf/yr

Source: UCLA Capital Programs, 2002

Thresholds of Significance

The following thresholds of significance are based on Appendix F of the 2002 CEQA Guidelines, which sets forth guidelines with regard to addressing impacts of a proposed project on energy resources. For purposes of this EIR, implementation of the 2002 LRDP may have a significant adverse impact on energy if it would result in any of the following:

- Require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Encourage the wasteful or inefficient use of energy

Impacts and Mitigation

Threshold	Would the project require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Impact LRDP 4.14-8 **Implementation of the 2002 LRDP could increase the demand for electricity, but would not require or result in the construction of new energy production or transmission facilities, the construction of which could cause a significant environmental impact. This is considered a *less-than-significant* impact.**

Implementation of the 2002 LRDP will increase campus development and correspondingly increase the campus use of electricity. Academic, residential, and support facilities will be constructed and/or subjected to increased use, increasing the demand for electricity to light, heat, and air condition these facilities. However, the simultaneous production by the campus ESF of electricity, steam, and chilled water is an efficient method of allowing the campus to meet 75 to 80 percent of its current electricity demand. Additionally, the campus TES facility reduces the campus peak energy demand by storing chilled water generated during off-peak periods of energy use (nights) for use during peak periods of energy use (days). However, according to the campus Energy Services Department, implementation of the 2002 LRDP would reduce the proportion of campus demand met by campus facilities. Total annual electricity consumption is estimated to increase by up to about 31.5 million kWh/yr to a total of about 416 million kWh/yr, although campus energy conservation measures and the increased campus capacity to store chilled water would offset some of this increase in demand. LADWP would supply this increase in demand, and has stated that it could provide this electricity based on current and estimated future supplies, including planned facilities upgrades (LADWP 2002). Additionally, LADWP has indicated that existing infrastructure to the campus is able to accommodate the increase in electricity anticipated under the 2002 LRDP. Because implementation of the 2002 LRDP is not anticipated to result in a demand for electricity that would exceed existing or projected supplies, and would not require the construction or expansion of energy production or transmission facilities, this impact would be less than significant. No mitigation is required.

Impact LRDP 4.14-9 Implementation of the 2002 LRDP could increase the demand for natural gas, but would not require or result in the construction of new gas production or transmission facilities, the construction of which could cause a significant environmental impact. This is considered a *less-than-significant* impact.

Implementation of the 2002 LRDP will result in increased development and a corresponding increase in campus use of natural gas for operations in academic, residential, and support facilities, in addition to fueling the ESF facility, which generates the majority (75 to 80 percent) of campus electricity. The simultaneous production by the ESF of electricity and steam is an efficient method of providing this electricity, which in turn ensures the efficiency of consumption of the natural gas that fuels the generation of electricity. In addition, waste heat from the electrical generating process is captured at the ESF and used to produce steam, thus reducing demand for natural gas consumption of ESF boilers. As described above in Section 4.14.1 (Environmental Setting), the sources of natural gas currently supplied to the campus are Sempra Energy, landfill gas supplied by GSF Energy, Inc. from the Mountaingate Landfill, and SCGC. The lease arrangement with GSF Energy provides landfill gas supplies for the life of the gas field. When this supply is exhausted (estimated to occur in 2004) additional gas will be purchased from a natural gas provider. As described above, implementation of the 2002 LRDP would result in an estimated increase of 208,980 yr, for a total annual demand of 3,871,341 yr. Although Sempra Energy could provide an additional 258,000 yr, this energy is replacement energy for the fraction lost with the discontinuation of service from GSF Energy and does not represent an increase in campus consumption. The SCGC stated that it would be able to provide the increase in its portion of the volume of natural gas anticipated from implementation of the 2002 LRDP, based on existing and projected supplies (Southern California Gas Company [Earl Plummer] 2002), and a natural gas service company such as Sempra Energy would be able to accommodate the increase in use of gas by the campus ESF and the increase in demand resulting from the exhaustion of the Mountaingate Landfill Supply. Additionally, according to SCGC, which owns the natural gas infrastructure serving the campus, the existing natural gas lines to the campus are able to accommodate this increase in demand. Because demand projected for the LRDP would not exceed available or planned supply, and new infrastructure would not be required to serve the campus, this impact would be less than significant. No mitigation is required.

Threshold	Would the project encourage the wasteful or inefficient use of energy?

Impact LRDP 4.14-10 **Implementation of the 2002 LRDP would not result in the wasteful or inefficient use of energy by UCLA. This is considered a *less-than-significant* impact.**

While an increase in direct campus use of electricity and natural gas is expected as a result of the increased regular and summer session enrollment associated with 2002 LRDP implementation, the efficiency with which energy is used by the campus is expected to increase. The increase in efficiency would be achieved by continuing campus energy conservation measures, the energy efficiency of co-generating steam and electricity for campus use, and the increased chilled water storage capacity of the TES facility. Additionally, following PP 4.14-10 which requires incorporating energy-efficiency measures into all future construction projects, would continue to foster the efficient use of energy on the campus.

More efficient electrical use conserves natural gas and reduces purchases from SCGC, and using co-generated steam to heat campus buildings further reduces campus demand for natural gas by reducing its direct use to heat campus structures. Because the LRDP would foster energy conservation rather than resulting in the wasteful or inefficient use of energy, a less-than-significant impact would occur.

The following campus programs, practices, and procedures shall be continued throughout the 2002 LRDP planning horizon:

PP 4.14-10 *The campus shall continue to implement energy conservation measures (such as energy-efficient lighting and microprocessor-controlled HVAC equipment) to reduce the demand for electricity and natural gas. The energy conservation measures may be subject to modification as new technologies are developed or if current technologies become obsolete through replacement.* (This is identical to Air Quality PP 4.2-3.)

Following PP 4.14-10 would continue to foster efficient energy use on campus and would ensure that a less-than-significant impact remains with respect to the wasteful or unnecessary use of energy. No mitigation is required.

4.14.5 Cumulative Impacts

The geographic context for the analysis of cumulative water supply and solid waste impacts is the City of Los Angeles, including all cumulative growth therein, as represented by the full implementation of the City of Los Angeles General Plan Framework and development of the related projects provided by Table

4-1 (Off-Campus Related Projects) in Section 4.0 (Introduction to Environmental Analysis). The City of Los Angeles represents the service area for the City of Los Angeles Department of Water and Power with respect to water supplies and the origin of the waste stream with respect to solid waste disposal. The context for cumulative impacts related to wastewater is the service area of the Hyperion Treatment Plant, which includes most of the City of Los Angeles, and the cities of Santa Monica, Beverly Hills, Burbank, Culver City, El Segundo, Glendale, San Fernando, and portions of the County of Los Angeles. For cumulative impacts related to electricity, the geographic context is the service area of the Los Angeles Department of Water and Power, which is nearly totally coincident with the boundaries of the City of Los Angeles. With regard to natural gas cumulative impacts, the geographic context is the Pacific Region service area of the Southern California Gas Company (SCGC), which includes the West Los Angeles area. The campus is also served by Sempra Energy, which is the parent corporation of SCGC.

Water Supply

Development of cumulative projects would demand additional quantities of water, depending on net increases in population, square footage, and intensity of uses. These projects would contribute to the overall regional water demand, which has been estimated by the LADWP to be 1,160.5 mgd by 2010. The 2000 Urban Water Management Plan (UWMP) prepared by the LADWP to assess water demand in the City of Los Angeles accounts for all projected development in its service area, including the UCLA campus. The UWMP includes regional water demand and supply projections, as well as demand management and supply enhancement elements. The LADWP determined that water supplies for its service area are adequate through 2020. Additionally, development within the City of Los Angeles is required to comply with the City's Water Conservation Ordinance, and the Xeriscape Ordinance, which will reduce regional water consumption. Therefore, cumulative water supply impacts for the Los Angeles area are less than significant. The Water Supply Assessment completed for UCLA (LADWP 2002) indicates that an adequate water supply is available to meet the needs of the campus through the LRDP planning horizon along with the demands of future projects in Los Angeles and thus the 2002 LRDP contribution to the cumulative impact is less than significant. In addition, due to the various conservation measures implemented on campus, even if the area-wide impacts were to become significant during the 2002 LRDP planning horizon, water use under the 2002 LRDP would not create a cumulatively considerable impact to water supply in the City of Los Angeles. This is considered a *less-than-significant* impact.

Cumulative development will also not require or result in the construction of new water treatment facilities or the expansion of existing facilities, thereby causing potentially significant environmental effects. LADWP has stated that it will be able to meet all demands for water in the City of Los Angeles at least until 2020, and has already made the planning and financial commitments necessary to provide the facilities necessary for this to occur. No new facilities, nor the expansion of current facilities, will be required by the impact of cumulative development beyond that already planned. Consequently, the cumulative impact with regard to water treatment facilities is less than significant, and the cumulative contribution of the 2002 LRDP is also less than significant. This is considered a *less-than-significant* impact.

Solid Waste

Development of cumulative projects would produce additional quantities of solid waste, depending on net increases in population, square footage, and intensity of uses, and quantities of demolition debris generated by redevelopment projects. These projects would contribute to overall regional solid waste disposal and landfill demand. The County Sanitation District has indicated that regional landfill capacity in the County system may be exceeded as early as 2003, and that projected landfill demands on a regional basis would continue to exceed projected landfill supplies. In addition, the Los Angeles General Plan Framework indicates that sufficient regional landfill capacity will not exist in 2010 unless the Chiquita Canyon and Lopez Canyon landfills receive additional permitted capacity. Chiquita Canyon did receive additional capacity; prior to its closure, the City-owned Lopez Canyon Landfill capacity was expanded to 19.2 million tons. Further, additional capacity may or may not be available at Orange County landfills, which currently contract with certain waste haulers to accept waste from the City of Los Angeles, but as development proceeds in Orange County, acceptance of waste from Los Angeles may be eliminated. This projected shortfall in landfill capacity could be averted in the future if further landfill capacity were to be approved. However, due to the regional landfill capacity shortfall that currently exists and the lack of definite plans to alleviate this shortfall, this impact currently appears to be cumulatively significant.

The contribution of the 2002 LRDP to this impact will not be cumulatively considerable, however. The amount of solid waste attributable to the 2002 LRDP is projected to be 1,787 tons per year. Projections from the City of Los Angeles General Plan show that by 2010 the City will be generating 6.5 million tons of solid waste per year. The share of solid waste attributable to the 2002 LRDP is therefore equivalent to three hundredths of one percent (0.03 percent) of the total. Additionally, the University diverts solid waste away from traditional landfills at a rate that is higher than statutory requirements. Thirty percent of total campus waste is currently sent to waste-to-energy facilities, and another twenty-two percent is recycled, for a total diversion rate of 52 percent. In 2000, the rate of recycling in the City of Los Angeles is 58.8 percent (City of Los Angeles AB 939 2000 Report). Taking into account diversion rates, the share of 2002 LRDP solid waste would be even smaller than 0.03 percent. Further reducing the magnitude of the 2002 LRDP solid waste impact is the fact that solid waste for the City of Los Angeles comprises only a portion of the total amount of waste generated in the entire County, which is the geographic context for solid waste cumulative impacts. Considering the small magnitude of the contribution to the impact and the extent of campus efforts to decrease solid waste generation, the impact of the 2002 LRDP with regard to solid waste generation is cumulatively less than significant. This is considered to be a *less-than-significant* impact.

The California Integrated Waste Management Act of 1989 requires that the City divert 50 percent of its solid waste by 2000. In 2000, the City of Los Angeles has obtained a 58.8 percent diversion rate, and has set a goal of 70 percent diversion by 2020. The City has developed a very strong waste management infrastructure over the last decade. Through both City and private sector efforts, a myriad of innovative source reduction, recycling, composting, and reuse programs have been implemented. These programs have made waste diversion inroads not only in City government, but also in the residential and commercial/industrial sectors. Due to the strength of this waste management infrastructure, the City has surpassed the State mandated 50 percent diversion rate. Cumulative development in the County of Los Angeles could result in a significant impact in terms of compliance with regulations concerning solid waste, as continued growth could hamper the City's ability to reach its waste diversion goals. It will therefore be conservatively assumed that there will be a cumulatively significant impact in this area. However, UCLA currently has obtained a 52 percent diversion rate for solid waste, and it is expected that implementation of the 2002 LRDP will preserve this high rate of diversion, due to the incorporation of solid waste diversion into campus practices. Consequently, the 2002 LRDP contribution to this impact will not be cumulatively considerable. This is considered to be a *less-than-significant* impact.

Wastewater

Development of cumulative projects within the Hyperion Treatment Plant would generate additional quantities of wastewater, depending on net increases in population, square footage, and intensification of uses. These projects would contribute to the overall regional demand for wastewater conveyance and treatment. The HTP is currently operating at 75 percent of capacity and is projected to have available capacity to treat wastewater from its service area through 2010. Thus, cumulative development would not exceed the capacity of the wastewater treatment system and is less than significant. Additionally, projected campus wastewater generation under the 2002 LRDP represents less than 1 percent of the remaining design capacity of the HTP, and the campus would continue to implement water conservation measures that would result in a concomitant decrease in wastewater generation. Therefore, as the HTP retains excess capacity, the individual contribution of the campus and the 2002 LRDP to wastewater generation on a regional basis would also be less than significant. This is considered to be a *less-than-significant* impact.

Cumulative growth in the HTP service area could result in the need for additional conveyance infrastructure. Due to the built-out, urban nature of most of the service area, however, it is not expected that such expansion of conveyance infrastructure would result in significant environmental effects. Consequently, the cumulative impact is considered to be less than significant. Additionally, the 2002 LRDP will not require expansion of off-campus conveyance infrastructure, and any potential need to expand on-campus conveyance infrastructure is not expected to result in significant cumulative effects. Consequently, the contribution of the 2002 LRDP is also less than significant. This is considered to be a *less-than-significant* impact.

Cumulative development would not result in the exceedance of RWQCB wastewater treatment requirements, and thereby would have a less than significant cumulative impact. The Los Angeles RWQCB, in connection with the implementation of the NPDES program, has imposed requirements on the treatment of wastewater and its discharge into the ocean. Wastewater produced by future development would meet these requirements due to treatment available at the Hyperion Treatment Plant and the implementation of wastewater BMPs. While it is possible that these requirements will not be met, it is more likely that local government and future development will comply with these federally mandated requirements. Consequently, the cumulative impact is considered to be less than significant. Additionally, UCLA has programs and procedures that ensure that all wastewater discharges made into the City sewer system will conform to federal law, including the Clean Water Act and the NPDES. Consequently, even if future development would result in a significant cumulative impact, the contribution of the 2002 LRDP would not be cumulatively considerable. This is considered to be a *less-than-significant* impact.

Energy

With respect to electricity, the 2002 LRDP would result in the permanent and continued use of this resource. However, anticipated power supplies for the City of Los Angeles are projected to be adequate through the planning horizon of the 2002 LRDP. LADWP is a municipal utility that generates its own electricity and independently supplies the City of Los Angeles. LADWP has stated that electricity would be available to supply energy to the City of Los Angeles at full implementation of the General Plan Framework, which includes the level of campus development that would occur under implementation of the 2002 LRDP, in 2010–11. Since LADWP is able to meet all future projected demands, there will be no significant cumulative impacts in terms of either supply or a potential need for added facilities. Therefore, both the overall cumulative impact as well as the contribution of the 2002 LRDP with respect to electricity supplies or the need for additional facilities would be less than significant. Note that although the City of Los Angeles General Plan Framework states that there is a significant cumulative impact with regard to electricity, for all the reasons listed above, the 2002 LRDP contribution would still be less than significant. This is considered to be a *less-than-significant* impact.

With regard to natural gas, the 2002 LRDP would also result in permanent and continued use of this resource. The campus is currently served by existing infrastructure that conveys gas from the Southern California Gas Company, Sempra Energy, and the Mountaingate Landfill. While the gas produced at the Mountaingate Landfill is anticipated to expire in 2004, Sempra Energy and SCGC have stated that they can each supply this natural gas without jeopardizing other service commitments, and SCGC has stated that demand projections are continuously updated, and supplying the campus with additional natural gas would not compromise its existing and projected service commitments. In addition, there would be no need to expand natural gas transmission infrastructure, as noted by the statement of the Southern California Gas Company that its system has ample capacity to assure continued high levels of service to all customers within the region. The cumulative impact related to the supply of natural gas and to the need for additional or expanded facilities is thus less than significant. The cumulative contribution from implementation of the 2002 LRDP is also less than significant due to the fact that gas suppliers have assured UCLA that there are adequate supplies for the 2002 LRDP and that no additional infrastructure is needed. Note that although the City of Los Angeles General Plan Framework states that there is a significant cumulative impact with regard to natural gas, for all the reasons listed above, the 2002 LRDP contribution would still be less than significant. This is considered to be a *less-than-significant* impact.

4.14.6 References

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Chapter 5 OTHER CEQA CONSIDERATIONS

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the Environmental Impact Report (EIR) must also identify (1) significant environmental effects of the proposed project, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, (4) growth-inducing impacts of the proposed project, (5) mitigation measures proposed to minimize significant effects, and (6) alternatives to the proposed project.

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE 2002 LRDP

Table 2-1 (Summary of Environmental Impacts and Mitigation Measures), which is contained in Chapter 2 of this EIR, and Sections 4.1 through 4.14 of this EIR provide a comprehensive identification of the proposed project's environmental effects, including the level of significance both before and after mitigation.

5.2 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE 2002 LRDP IS IMPLEMENTED

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. Development under the 2002 LRDP would result in the following significant and unavoidable project-related impacts:

Air Quality

- Construction impacts resulting from peak daily emissions of NOx
- Operational impacts resulting from peak daily emissions of CO, VOC, and NOx during the twelve-week summer session.

Noise

- Construction impacts resulting from on-campus groundborne vibration or groundborne noise levels
- Construction impacts resulting from an increase in on-campus ambient noise levels

- Construction impacts resulting from an increase in off-campus ambient noise levels

Traffic and Circulation

- Operational impacts resulting from an exceedence of the applicable LOS criteria for vehicle trips during the regular session at five intersections during the AM peak hour
- Operational impacts resulting from an exceedence of the applicable LOS criteria for vehicle trips during the twelve-week summer session at four intersections in the AM peak hour, 11 intersections in PM peak hour, and ten intersections in both the AM and PM peak hours
- Construction impacts resulting from truck trips

Many project-related impacts resulting from implementation of the 2002 LRDP can be mitigated to a less-than-significant level; however, cumulative impacts would result from implementation of the 2002 LRDP in combination with the development of related projects in the area and projected regional growth. The impact areas for which there is a significant and unavoidable contribution of the 2002 LRDP to significant and adverse cumulative impacts include the following:

Traffic

- Operational impacts resulting from exceedence of the applicable LOS criteria would make a significant and cumulatively considerable contribution to cumulative impacts on traffic on local streets and intersections during both the regular and summer sessions
- Construction impacts resulting from exceedence of the applicable LOS criteria would make a significant and cumulatively considerable contribution to cumulative impacts on traffic on local streets and intersections during both the regular and summer sessions

Air Quality

- Construction impacts resulting from air emissions would make a significant and cumulatively considerable contribution to cumulative significant impacts on regional air quality from daily emissions of criteria pollutants.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Specifically, Section 15126.2(c) states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly,

> secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if

- The primary and secondary impacts would generally commit future generations to similar uses
- The project would involve a large commitment of nonrenewable resources
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy)

Development under the 2002 LRDP would result in the continued commitment of the UCLA campus to University-related uses, thereby precluding any other uses for the lifespan of the campus. UCLA's ownership of the campus represents a long-term commitment of the campus to University use. Restoration of the campus to pre-developed conditions would not be feasible given the degree of disturbance, the urbanization of the area, and the level of capital investment. In addition, with respect to this project, the 2002 LRDP merely extends the 1990 LRDP from a horizon year of 2005–06 to 2010–11, while maintaining the same development allocation, vehicle trip limits, and parking limits of the 1990 Plan and accommodating an increase in the campus population. In effect, the total amount of potential development, and its environmental impacts, was previously analyzed in the 1990 LRDP EIR and no additional commitment to additional future uses would occur. While the 2002 LRDP could be said to continue the commitment of the UCLA campus site for University purposes for future generations, the 2002 LRDP does not represent a change in commitment from existing conditions.

Resources that will be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. In fact, the growth in student enrollment, and the associated growth in the campus population, is responsive to growth that has already occurred in the state as the children of the "baby boom" generation mature to college age. Therefore, natural resources are currently being consumed by this demographic group and would continue to be consumed by this group at some location. Nonetheless, construction activities related to the 2002 LRDP, though previously analyzed, would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

With respect to operational activities on campus, compliance with all applicable building codes, as well as LRDP mitigation measures, LRDP objectives, and standard campus conservation features, would ensure that all natural resources are conserved to the maximum extent possible. It is also possible that new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce the campus reliance upon nonrenewable natural resources. Overall, the consumption of natural resources would increase at a lesser rate than the projected population increase due to the variety of energy conservation measures that the campus has and will continue to provide.

In January 1994, the Energy Systems Facility (ESF) began providing electricity to the UCLA campus in two combustion turbine generators using a combination of methane gas from the nearby Mountaingate Landfill as well as natural gas. The facility simultaneously produces electricity and steam for the entire campus, as well as chilled water for many buildings on the main campus for use in air conditioning and cooling activities. The simultaneous production of electricity and steam greatly increases the campus energy utilization efficiency and improves the capacity and reliability of the campus electrical distribution system. Operation of the facility has reduced the campus long-term utility expenditures and dependence upon electricity provided by the Los Angeles Department of Water and Power (LADWP). The ESF currently provides 80 percent of the electrical needs of the campus peak winter demand and 75 percent of the campus summer demand. However, according to the campus Energy Services Department, implementation of the 2002 LRDP would reduce the proportion of campus demand met by campus. Remaining electrical needs are, and would be, supplied by LADWP. Consequently, a long-term increase in demand for electrical resources would occur.

The CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the project. While the campus uses, transports, stores, and disposes of hazardous wastes, as described in Impact 4.6-1 of Section 4.6 (Hazards and Hazardous Materials), the campus complies with all applicable State and federal laws and existing campus programs, practices, and procedures (as required by PP 4.6-1) related to hazardous materials, which reduces the likelihood and severity of accidents that could result in irreversible environmental damage. In fact, over the campus history, there has never been an accident that resulted in irreversible environmental damage, indicating that current practices with respect to hazardous materials handling are adequate, and thus the potential for the 2002 LRDP to cause irreversible environmental damage from an accident or upset of hazardous materials is less than significant.

The 2002 LRDP would not involve a wasteful or unjustifiable use of energy or other resources. In 2002, the campus began operating the Thermal Energy Storage System (TES), an extension of the campus ESF that stores chilled water produced during low energy cost periods (nights) for use during high energy cost periods (days). This system saves energy costs while increasing the efficiency and capacity of the campus chilled water production system to ensure a continuous supply of chilled water to essential campus facilities.

As previously discussed, the campus has instituted lighting and other energy conservation measures and has been replacing in-building lighting systems with up-to-date energy-saving equipment. Lighting conservation efforts in new construction include installation of occupancy sensors to automatically turn off lights when not in use, lighting reflectors, electronic ballasts, and energy-efficient lamps. The campus is nearing completion of the conversion of all exterior lighting to high-pressure sodium fixtures. In addition, many in-building lighting systems are being replaced over time with up-to-date energy-saving equipment such as automatic photosensitive switching equipment. Conservation efforts are also expected to involve improved HVAC systems with microprocessor-controlled energy management systems. In addition, the campus shall continue to implement all new development under the 2002 LRDP in accordance with specifications contained in Title 24 of the CCR.

Through the efficient use of electricity on campus, the use of natural gas on the campus would also occur in an efficient manner, as the cogeneration facility on campus is fired by natural gas. Improvements to the efficiency of HVAC units will also allow more efficient use of natural gas for heating.

5.4 GROWTH-INDUCING IMPACTS

As required by the CEQA Guidelines, an EIR must include a discussion of the ways in which the proposed project could directly or indirectly foster economic development or population growth, or the construction of additional housing and how that growth would, in turn, affect the surrounding environment (CEQA Guidelines Section 15126.2(d)). Growth can be induced in a number of ways, including the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The discussion of removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval. Under CEQA, induced growth is not considered necessarily beneficial, detrimental, or of little significance to the environment.

In general, a project may foster spatial, economic, or population growth in a geographic area if it meets any one of the criteria identified below:

- The project removes an impediment to growth (e.g., the establishment of an essential public service, or the provision of new access to an area)

- The project results in the urbanization of land in a remote location (leapfrog development)
- Economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.), and
- The project establishes a precedent-setting action (e.g., a change in zoning or general plan amendment approval)

If a project meets any one of these criteria, it may be considered growth inducing. Generally, growth-inducing projects are either located in isolated, undeveloped, or underdeveloped areas, necessitating the extension of major infrastructure such as sewer and water facilities or roadways, or encourage premature or unplanned growth.

The 2002 LRDP represents a continuation of the use of the UCLA campus for University purposes, and continues the planning limitations on overall building square footage, parking spaces and vehicle trips established by the 1990 LRDP. Accordingly, the 2002 LRDP would not remove an impediment to growth. However, as discussed in Section 4.10 of this EIR and summarized below, the 2002 LRDP is intended to accommodate increased enrollment through the year 2010.

Overall campus population growth (shown in Tables 4.10-7 and 4.10-8 of Section 4.10 [Population and Housing] of this EIR) reflects an approximate 7.4 percent regular session headcount increase for students and academic and staff employees over the planning horizon of the 2002 LRDP. However, summer session headcount growth for students and academic and staff employees is anticipated to increase approximately 31 percent. The higher growth percentage for summer reflects the fact that summer sessions have traditionally had a much smaller enrollment compared to the regular session. This circumstance will change as the University encourages summer school attendance as a way of accommodating enrollment increases to make better use of existing facilities when campus activity is lower. Comparison of anticipated growth between regular and summer session shows that even with the estimated growth in student average weekday attendance during summer sessions, the overall campus average weekday population during summer will continue to remain substantially below that of the regular session.

The 2002 LRDP would accommodate this anticipated enrollment growth, and the accompanying population growth, as directed by the University of California in response to the State Legislature. UCLA is acknowledged as part of the Westwood Community Plan Area in both the 1996 General Plan Framework and the 1996 General Plan Framework Final EIR (Framework). The Framework relied upon data from the 1990 U.S. Census, which is consistent with the data relied upon in the 1990 LRDP EIRand SCAG's regional growth forecast as reflected in the Growth Management Chapter of the 1994 Regional

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- The project results in the urbanization of land in a remote location (leapfrog development)
- Economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.), and
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Comprehensive Plan and Guide (RCPG). The Growth Management Chapter provides guidelines for development in relation to growth and land development issues. Included are employment, housing, and population forecasts for each subregion.

According to the Framework, the population in the City of Los Angeles was 3,485,399 persons in 1990, with an anticipated growth in population to 4,306,564 by the year 2010, which represents an overall growth rate of 23.6 percent, or approximately 1.2 percent per year. In the Westwood Community Plan Area, the Framework anticipated the growth rate to be approximately 20.1 percent between 1990 and 2010, or 1.0 percent per year, given a 1990 population of 41,297 and a projected population in 2010 of 49,605. Given UCLA's anticipated population growth of approximately 12 percent between 1990 and 2010, or 0.6 percent per year, population growth at UCLA is well below the overall rate of growth anticipated in the Westwood Community Plan area, as well as in the City of Los Angeles. Furthermore, some portion of the population growth already resides in the region, and the 2002 LRDP could represent an even smaller population growth.

The Framework also concludes that population growth within the City of Los Angeles, which is anticipated to be 4,306,564 persons by 2010, is within SCAG's population forecast of 4,365,469 for this same time period. The 2002 LRDP was also determined by SCAG "not to be regionally significant" in its comment letter on the Notice of Preparation for the 2002 LRDP Draft EIR (SCAG 2001).

The continued development of the UCLA campus pursuant to the 2002 LRDP would not encourage growth through the provision of new and essential public services or access opportunities, nor would it result in urbanization of land in a remote location, resulting in "leapfrog" development. The UCLA campus is located in an urbanized area that is served by a complex and extensive network of electricity, water, sewer, storm drain, communications, roadways, and other infrastructure sized to accommodate or allow existing and planned growth. Further, the 2002 LRDP does not involve the construction of any new roadways other than those required for internal circulation or ingress/egress into new parking structures or other facilities.

The 2002 LRDP would not result in significant growth inducement as a result of economic expansion or population growth. The addition of population in an area has the potential to increase the amount of spending, thereby stimulating the economic activity of the area. Increased future employment generated by resident and employee spending can ultimately result in the physical development of space or the need for services to accommodate additional employees to serve the new population. It is the provision of this physical space and its specific location that will determine the magnitude of environmental impacts of the additional economic activity. Although the economic effect can be predicted, the actual environmental implications of this type of economic growth are difficult to predict, since they can be spread throughout the region and beyond.

While short-term employment opportunities would be generated during the construction period for individual projects developed under the 2002 LRDP, it is anticipated that construction employees would commute from elsewhere in the region, rather than relocate to the UCLA area for a temporary construction assignment. Further, the 2002 LRDP is being prepared in response to an anticipated increase in the campus population, including an increase in academic and staff employees that is consistent with adopted regional forecasts. Nonetheless, implementation of the 2002 LRDP may result in the creation of indirect and induced jobs. Indirect jobs are those that would be created when the campus purchases goods and services from businesses in the region, and induced jobs are those that are created when wage incomes of those employed in direct and indirect jobs are spent on the purchase of goods and services in the region.

UCLA's economic impacts are primarily the result of campus purchases of goods and services, payment of taxes and salaries, capital expenditures, and visitor spending, which affects the regional economy of the City and County of Los Angeles, and on a more indirect basis the State of California. While UCLA contributes to the economic health of Westwood Village, historically, however, economic activity in Westwood Village, or the periodic fluctuation thereof, has not been determined by growth or decline in campus population. Rather, it has been based upon general economic conditions, fluctuations in consumer confidence and spending, the shifting popularity of Westwood as a destination for shopping and entertainment as compared to other similar areas in Southern California, and other social and economic trends. For example, during the 1990s, when the UCLA campus average weekday population grew by about 3,000 persons, Westwood Village experienced a very difficult economic period from which it is still recovering.

While there would be a total increase over 10 years of about 4,873 average weekday students and academic and staff employees as a result of the 2002 LRDP, this increase would not exceed SCAG growth projections, and is a small component of the job growth anticipated in the local and regional economies. For example, based on the direct-to-indirect employment impact ratio used in the UCLA Economic Impact Study (i.e., 0.68 direct and indirect jobs for every direct job), the 2002 LRDP's 1,895 total additional academic and staff employees on an average weekday could be expected to generate 1,288 indirect jobs distributed throughout Los Angeles County. SCAG forecasts that 448,000 additional jobs will be created in Los Angeles County over about the same 10 year period, making the increase in jobs attributable to the LRDP approximately 0.7 percent of the total (SCAG, 2001 Regional

Transportation Plan). As discussed in Section 4.10 (Population and Housing), growth associated with the 2002 LRDP is included within SCAG growth projections. Further, there would be no change in the operation of the campus administrative or academic programs or the amount of development, which remains within the development allocation of the 1990 LRDP.

It is possible that faculty and staff added as a result of the 2002 LRDP may seek housing opportunities in the Westwood Community Plan area, as well as other areas such as West Los Angeles, Santa Monica, Culver City, and/or the San Fernando Valley. However, the specific distribution of faculty and staff housing in these and other areas is speculative, and is driven by many factors such as housing price, choice of school district, and personal preferences that are outside the control or influence of UCLA. It should further be considered that most staff positions (which are the majority of the additional jobs that would be added as a result of the 2002 LRDP) involve vocational opportunities that are generally found in most communities, and may not offer a unique enough opportunity to induce job-seekers to relocate its household for the sole purpose of filling these positions. Due to the existing unemployment rate in Los Angeles County, which has averaged 7.5 percent over the last ten years (Annual Average Labor Force Data for Counties, State of California, Employment Development Department, 1992–2002), it is expected that qualified area residents will fill the vast majority of additional staff positions. Accordingly, it is anticipated that most of the new staff positions would be filled by persons already residing in the area, and thus would not create new demand for additional housing. Any incremental increase in indirect demand created by additional campus population growth associated with the 2002 LRDP is expected to be accommodated by the supply of resources available in the general economy as it grows over the 10-year time period of the LRDP, as further discussed in Section 4.10 (Population and Housing) of this EIR. Therefore, growth-inducing impacts are considered less than significant.

Lastly, a decision by The Regents of the University of California to approve the 2002 LRDP is not a precedent-setting action. Approval of specific projects under the 2002 LRDP would be considered on a case-by-case basis and would not necessarily mean that other development approvals in the area would follow. As noted above, the UCLA campus is located in an already urbanized area. The scale of physical development included in the 2002 LRDP does not exceed the capacity approved in the prior LRDP, and the projected enrollment growth it is intended to accommodate is a function of the State's Master Plan for Higher Education, which itself is intended to accommodate statewide growth trends that will cause a significant increase in the number of high school graduates over the next decade. Therefore, the 2002 LRDP does not set any new precedents for growth.

5.5 MITIGATION MEASURES PROPOSED TO MINIMIZE SIGNIFICANT EFFECTS OF THE 2002 LRDP

Table 2-1 (Summary of Environmental Impacts and Mitigation Measures), which is contained in Chapter 2 of this EIR, provides a comprehensive identification of the 2002 LRDP's environmental effects and proposed mitigation measures.

5.6 ALTERNATIVES TO THE 2002 LRDP

Alternatives to the 2002 LRDP are presented in Chapter 6 (Alternatives) of this Draft EIR.

Chapter 6 ALTERNATIVES

The following discussion evaluates alternatives to the 2002 LRDP and examines the potential environmental impacts associated with each alternative. Through comparison of these alternatives to the 2002 LRDP, the relative environmental advantages and disadvantages of each are weighed and analyzed. The CEQA Guidelines require that the range of alternatives addressed in an EIR should be governed by a rule of reason. Not every conceivable alternative must be addressed, nor do infeasible alternatives need to be considered (CEQA Guidelines Section 15126.6 [a]). When addressing feasibility, Section 15126.6 of the CEQA Guidelines states that the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, other plans or regulatory limitations, and jurisdictional boundaries. The Guidelines state that the discussion of alternatives must focus on alternatives capable of either avoiding or substantially lessening any significant environmental effects of the project, even if the alternative would impede, to some degree, the attainment of the project objectives, which are identified in Section 3.3 (Project Description, Objectives) of this EIR, or would be more costly. The alternatives discussion should not consider alternatives whose implementation is remote or speculative, and the analysis need not be presented in the same level of detail as the assessment of the project.

Based on the CEQA Guidelines, several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include (1) the nature of the significant impacts of the proposed project, (2) the ability of alternatives to avoid or lessen the significant impacts associated with the project, (3) the ability of the alternatives to meet the objectives of the project, and (4) the feasibility of the alternatives. The analysis in this EIR indicates that the project will result in significant and unavoidable impacts with respect to operational traffic in both the regular and summer sessions, air quality operational emissions during the twelve-week summer session, and construction-related traffic, air quality, and noise (including on-campus construction-related groundborne vibration). Thus, the alternatives examined herein represent alternatives that would minimize or avoid the significant traffic, noise, and/or air quality impacts associated with implementation of the project.

6.1 ALTERNATIVES TO THE PROJECT

The alternatives that are evaluated in this section include the following:

- *Alternative 1: No Project/Continued Implementation of the 1990 LRDP through 2010–11*—This alternative assumes the same development levels, vehicle trip limits, parking limits, and population growth as articulated in the 1990 LRDP, which would permit a maximum of 1.7 million gsf of new development, limit the on-campus parking inventory to 25,169 parking spaces, and result in a total headcount of 55,507 faculty, staff and students, and an average weekday campus population of 58,430. This alternative assumes that the 1990 LRDP would be continued unless and until another LRDP is adopted, to allow for a plan-to-plan comparison of the 1990 LRDP and the 2002 LRDP, as articulated in Section 15126.6(e)(3)(A) of the CEQA Guidelines. Under this alternative, the Northwest Housing Infill Project (NHIP) would not occur, as that proposal is not consistent with the 1990 LRDP. Because the population growth would be limited to the levels identified in the 1990 LRDP and the additional enrollment under the 2002 LRDP would not occur, this alternative also serves as a reduced population alternative.

Methodology for Selection of Alternative 1: Section 15126.6(e)(3)(A) of the CEQA Guidelines states that when the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the no project alternative will be the continuation of the existing plan, policy, or operation into the future. Therefore, under Alternative 1, the impacts of the proposed plan (e.g., the 2002 LRDP) are compared to the impacts that would occur under the existing plan (e.g., the 1990 LRDP), assuming that both have a horizon year of 2010–11. This alternative would result in the same amount of development as under the 2002 LRDP, but would not accommodate the full proposed increase of 4,000 full-time-equivalent (FTE) students and would limit campus population to the levels identified in the 1990 LRDP. Under this alternative, it is assumed that no growth in summer session enrollment would occur.

- *Alternative 2: Off-Site Alternative*—This alternative assumes the relocation of discrete programs, which could include the Law School and the Anderson Graduate School of Management, associated graduate housing, recreational facilities, and parking to a 35-acre site at the Playa Vista Phase II Development site located in the City of Los Angeles.

  Methodology for Selection of Alternative 2: This alternative assumes the same development allocation of 1.7 million gsf as the 2002 LRDP, at a different project site (consistent with Section 15126.6(f)(2) of the CEQA Guidelines) for the purpose of reducing impacts associated with an increase in the on-campus average weekday population.

- *Alternative 3: Regular Session Growth Only*—This alternative assumes that all enrollment growth would be accommodated in the regular session, and no enrollment growth would occur in the summer session

  Methodology for Selection of Alternative 3: This alternative assumes the same development allocation as the 2002 LRDP; however, all population growth would be accommodated in the regular session for the purpose of reducing summer session traffic and air quality impacts.

As previously described in Section 4.0 (Introduction to the Environmental Analysis), impacts related to transportation/traffic, air quality, noise, population and housing, public services (police protection and school capacity), and recreation are analyzed on the basis of the campus population estimates. Impacts related to aesthetics, biological, cultural, geology/soils, hazards, hydrology, land use, utilities, and public services (fire protection) are analyzed on the basis of the proposed location of development, the proposed size (square footage) and type of development, acreage of ground disturbance, and known or expected presence of environmental resources (i.e., biological, aesthetic, cultural, or geological).

6.2 ALTERNATIVES REJECTED AS INFEASIBLE

During the scoping process, other alternatives were also considered, but were found to be infeasible, as described in the following sections.

6.2.1 Phased Construction Alternative

Under this alternative, only one project would be constructed at a time to reduce overall construction impacts associated with the 2002 LRDP. However, this alternative is infeasible because projects are constructed as the program needs become clear and the funding becomes available. Under the Phased Construction Alternative, projects would be constructed well after the need is identified, which would not support (even in part) the campus academic objectives that relate to recruiting and retaining a diverse faculty of the highest quality; attracting, developing, educating, and graduating a diverse population of students of the highest quality; developing an academic, administrative, and physical environment that supports outstanding research and creative activity; and creating a physical and social environment that fosters the academic and personal development of students. Therefore, this alternative was rejected as infeasible.

6.2.2 Xeriscapic Landscaping Alternative

This alternative consists of development of the remaining 1.71 million gsf previously allocated under the 1990 LRDP; however, this alternative would employ increased water conservation practices through utilization of landscaping techniques such as limitation of the size of lawn areas and replacement of current landscaping with native grasses and xeric plants on hot, dry south- and west-facing slopes and walls in order to reduce water consumption, which was a significant impact in the 1990 LRDP. Xeric plants require a small amount of moisture to survive. Since the campus is known for its aesthetic landscaping, the employment of xeriscapic landscaping would not support the campus objective that relates to respecting and reinforcing the landscape traditions that give the campus its unique character. In addition, because some of the existing campus trees would be replaced by xeric landscaping, either through removal and replacement or attrition, existing habitat that could support migratory birds and raptors would be reduced. In addition, the use of landscaping (primarily trees) as screening for adjacent uses, such as provided along the northern boundary of the campus along Sunset Boulevard, would also be reduced, which would conflict with the campus objective that strives to provide a landscaped buffer along the western, northern, and eastern edges of the main campus. Therefore, while this alternative might reduce water consumption, it was rejected as infeasible due to impacts associated with visual and biological resources, and does not reduce a significant and unavoidable impact associated with implementation of the 2002 LRDP.

6.2.3 Full Implementation of the 1990 LRDP by 2005–06

This alternative includes development of the remaining 1.71 million gsf previously allocated under the 1990 LRDP by 2005–06, which is the horizon year for the 1990 LRDP. However, this alternative was rejected as infeasible because the level of project planning and funding necessary to construct and occupy 1.71 million gsf of development at the UCLA campus cannot and will not occur within the next three years. This alternative would also not achieve a reduction in any of the project's significant and unavoidable impacts. However, Alternative 1 extends the horizon year for the 1990 LRDP to 2010–11 and, therefore, is analyzed as a project alternative in Section 6.3 (Analysis of Alternatives to the Proposed Project).

6.2.4 No Project/Reduced Enrollment Alternative

Under this alternative, all development and population growth that has occurred as of 2001–02, including development that was either under construction or previously approved. However, UCLA would not accommodate any increased enrollment beyond the levels that had already occurred as of academic year 2001–02. Under this alternative, the demolition of portions of the Center for Health Sciences and construction of Seismic Replacement Building 3 both analyzed in the AHCFRP Final EIR, a well as Phase II of the Southwest Campus Housing and Parking Project analyzed in the Southwest Campus Housing and Parking Final EIR, would not occur. The campus population levels would remain at the levels indicated by Table 4.10-3 (Existing Campus Population—Regular Session) and Table 4.10-3 (Existing Campus Population—Summer Session). In summary, the regular session population would remain at 54,355 and the average weekday regular session population would remain at 56,668. The summer session population would remain at 27,715 and the average weekday summer session population would remain at 34,127.

Refer to Volume 3, Chapter II (Text Changes)

While this alternative could result in fewer impacts as compared to the 2002 LRDP due to a reduction in both development and population levels, this alternative was rejected as infeasible for the following reasons. This alternative assumes that UCLA would not accommodate any increased enrollment beyond the levels that had already occurred as of academic year 2001–02. Therefore, while the State has mandated the University of California (UC) to accommodate enrollment growth resulting from a projected increase in the number of high school graduates over the next decade, UCLA would not absorb its share of that growth (4,000 FTE students) as directed by the UC. By limiting campus population growth to existing levels, including the student population, the University would not achieve the project objective that seeks to ensure student access in a manner consistent with the Master Plan for Higher Education in California, while continuing to enhance the quality of the academic program and meeting the University enrollment growth target to accommodate an additional 4,000 FTE students at UCLA by 2010–11.

In addition, along with limiting campus population growth to existing levels, several projects that have been analyzed in an environmental document prepared in accordance with CEQA, but not yet approved, would not be constructed. The Center for Health Sciences (CHS) is seismically compromised and retaining the structure, rather than demolishing it, would prohibit its use as an in-patient medical facility because it would not comply with the requirements of the Office of Statewide Health Planning and Development. Further, as determined in the Academic Health Center Facilities Reconstruction Plan EIR, seismic renovation of the structure for in-patient use was determined to be cost prohibitive; therefore, demolition was proposed. According to the Summary of Hospital Seismic Performance Ratings (Office of Statewide Health Planning and Development 2001), without seismic rehabilitation, the CHS poses a significant risk of collapse and a danger to the building occupants in the event of a strong earthquake, and must be retrofitted by 2008 to continue to house acute patient care service.

If Seismic Replacement Building 3 were not constructed, additional space would not be available for the consolidation and relocation of certain academic, research, and administrative functions of the medical school, including medical teaching programs, a biomedical library, administrative offices, and educational facilities, which could adversely affect the academic and research mission of the school.

Phase II of Southwest consists of 638 graduate students beds and an accompanying 638 parking spaces. If this phase of development were not to proceed, the goals of the 1990 or 2001 Student Housing Master Plan would not be met with respect to the percentage of students housed in University-owned or private-sector housing (within walking distance to campus). In addition, the Southwest Campus Housing and Parking Project was included as a mitigation measure in the 1990 LRDP EIR as one component of the campus Transportation Demand Management (TDM) program. Therefore, if Phase II of this project were not constructed, the estimated reduction in vehicle trips to campus by graduate students that could be housed on campus would not occur, and full compliance with the 1990 LRDP EIR mitigation measure would not be achieved.

Therefore, while this alternative might reduce certain environmental impacts, it was rejected as infeasible because of the programmatic and planning limitations described above.

6.3 ANALYSIS OF ALTERNATIVES TO THE PROPOSED PROJECT

This section provides an analysis of the environmental impacts of each of the project alternatives, summarized previously in Section 6.1, including a comparison of the potential impacts of the alternative to the proposed project, as well as the impacts that would result from implementation of the project alternatives themselves.

Three alternatives are analyzed in this section, including the No Project alternative. The No Project alternative must be analyzed pursuant to Section 15126.6(e) of the CEQA Guidelines to allow The Regents to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The second alternative analyzes an off-site alternative and the third alternative analyzes all population growth occurring during the regular session. All of the alternatives were selected because of their potential to avoid or substantially lessen the significant impacts of the project.

6.3.1 Alternative 1—No Project/Continued Implementation and Extension of the 1990 LRDP Through 2010–11

Description

This alternative assumes the same level of development, limit on parking spaces, and growth in the campus population as estimated in the 1990 LRDP, which would permit development of an additional 1.7 million gsf of development, limit the on-campus parking inventory at 25,169 parking spaces, and result in a total headcount of 55,507 faculty, staff and students, and an average weekday campus population of 58,420. Under this alternative, the 1990 LRDP would be continued unless and until another LRDP is adopted. For purposes of this analysis, it is assumed that the development levels included in the 1990 LRDP would be achieved in 2010–11 to allow for a plan-to-plan comparison of the 1990 LRDP and the 2002 LRDP as articulated in Section 15126.6(e)(3)(A) of the CEQA Guidelines. Alternative 1 would result in a smaller population growth, as compared to the 2002 LRDP, with the same level of development (1.7 million gsf). Under this alternative, the NHIP would not occur, as that

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proposal is not consistent with the 1990 LRDP, and no additional growth in summer session enrollment would be accommodated beyond current levels. Because the population growth would be limited to the levels identified in the 1990 LRDP and the additional enrollment under the 2002 LRDP would not occur, this alternative also serves as a reduced population alternative.

Comparison of Environmental Effects

Under Alternative 1, the 1990 LRDP would be extended to 2010–11, and the level of new development and parking limits would remain the same as with the proposed project. However, the full growth of 4,000 full-time equivalent (FTE) students would not be accommodated, and no growth in summer session enrollment would occur.

As previously mentioned, the analysis of impacts is based upon one of two factors, either population or the campus built environment, depending upon the type of impact. Under this alternative, impacts are related to population levels, rather than development levels. Therefore, impacts related to aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, public services (fire protection), and utilities and service systems (water, solid waste, wastewater, electricity, and natural gas), which are analyzed on the basis of factors such as the proposed location of development, the proposed size (square footage) and type of development, acreage of ground disturbance, and known or expected presence of environmental resources (i.e., biological or cultural resources), would be the same as the impacts that would occur under the 2002 LRDP. These issue areas are not discussed in this alternatives analysis; instead, for a summary of those particular impacts that would occur under this alternative, in comparison with the 2002 LRDP, refer to Table 2-1 (Summary of Environmental Effects and Mitigation Measures), which is provided in Section 2 (Summary) of this document.

Under this alternative, because the remaining environmental impact areas that are analyzed on the basis of the campus population estimates may be different than the 2002 LRDP (given the reduced enrollment growth under this alternative), they are analyzed below. These issue areas include air quality, noise, population and housing, public services (police protection and school capacity), recreation, and transportation/traffic.

Air Quality

As with the 2002 LRDP, development under Alternative 1 would neither conflict with nor obstruct implementation of the 1997 AQMP and the 1999 Amendment for Ozone. This is because the 2002

LRDP and Alternative 1 do not provide for population, housing, or employment growth that exceeds forecasts from the Growth Management Chapter of the RCPG, which forms the basis of the land use and transportation control portions of the AQMP. In addition, the UCLA campus would continue to implement trip reduction programs under both 2002 LRDP and Alternative 1. These programs are consistent with the goals of the AQMP for reducing the emissions associated with new development. While Alternative 1 would result in an estimated trip generation that is essentially the same as under the 2002 LRDP, more trips would be generated by faculty and staff and fewer trips would be generated by commuter students under the alternative. This is because the parking inventory limits are the same for both the alternative and the project, but the parking space allocation would be different due to the lower number of on-campus student residents under this alternative.

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The 2002 LRDP developed two construction scenarios to allow a conservative analysis of traffic, air quality, and noise impacts during peak construction activity periods. Both of these scenarios used the NHIP as a representative construction project. While the NHIP would not be constructed as part of this alternative, construction activities under Alternative 1 would be similar to those of the 2002 LRDP since the same overall amount of development would occur, and another construction project, or combination of projects, could result in similar construction impacts. As such, the net increase in daily construction emissions would exceed daily thresholds recommended by the South Coast Air Quality Management District (SCAQMD) and construction under Alternative 1 would contribute substantially to an existing or projected air quality violation during peak periods and the potential impact would be significant. Following MM 4.2-2(a), MM 4.2-2(b), and PP 4.2-2(a) through PP 4.2-2(c) ensures that construction related air quality impacts are minimized. They would not, however, reduce the net increase in peak construction activities to below the thresholds of significance recommended by the SCAQMD. Therefore, the construction air quality impact would be significant and unavoidable under both the 2002 LRDP and Alternative 1.

The net increase in daily operational campus emissions above the future baseline associated with Alternative 1 during the regular session are presented in Table 6-1 (Future Without and Future With Alternative 1 Daily Operational Campus Emissions—Regular Session) along with the thresholds of significance recommended by the SCAQMD. As shown, the net increase in daily campus emissions associated with Alternative 1 would not exceed the threshold of significance recommended by the SCAQMD. Therefore, as with the 2002 LRDP, implementation of Alternative 1 would not generate a net increase in daily operational campus emissions during the regular session that contributes substantially to an existing or projected air quality violation.

Table 6-1 Future Without and Future With Alternative 1 Daily Operational Campus Emissions—Regular Session

Development Scenario	Emissions in Pounds per Day				
	CO	VOC	NOx	SOx	PM_{10}
Future Without Alternative 1	11,068.7	1,151.7	1,411.5	93.4	968.1
Future With Alternative 1	11,258.8	1,167.6	1,441.9	102.1	986.1
Net Increase in Future Daily Emissions	190.1	15.9	30.4	8.7	18.0
SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0
Significant Impact?	No	No	No	No	No

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7.

The net increase in daily operational campus emissions above the future baseline associated with Alternative 1 during the twelve-week summer session is presented in Table 6-2 (Future Without and Future With Alternative 1 Daily Operational Campus Emissions—Summer Session). As shown, the net increase in daily campus emissions associated with Alternative 1 would exceed the threshold of significance recommended by the SCAQMD. Therefore, implementation of Alternative 1 would generate a net increase in daily operational campus emissions during the summer session that contributes substantially to an existing or projected air quality violation and the potential impact would be significant. Implementation of MM 4.2-4, as well as PP 4.2-1 (a), PP 4.2-1 (b), PP 4.2-2 (a) through PP 4.2-2 (c), and PP 4.2-3 ensures that the number of motor vehicle trips and stationary source emissions are reduced to the maximum extent feasible during the summer session. They would not, however, reduce the net increase in daily emissions generated during the summer session to below the thresholds of significance recommended by the SCAQMD. Therefore, this impact would be significant and unavoidable under both the 2002 LRDP and Alternative 1. However, the resulting emissions for Alternative 1 would be slightly less than the emissions generated under the 2002 LRDP for the summer session due to the lower on-campus population.

Table 6-2 Future Without and Future With Alternative 1 Daily Operational Campus Emissions—Summer Session

Development Scenario	Emissions in Pounds per Day				
	CO	VOC	NOx	SOx	PM_{10}
Future Without Alternative 1	9,774.5	932.9	1,288.7	92.7	861.0
Future With Alternative 1	10,536.8	1,000.4	1,373.4	101.7	926.3
Net Increase in Future Daily Emissions	762.3	67.5	84.7	9.0	65.3
SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0
Significant Impact?	Yes	Yes	Yes	No	No

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7.

Implementation of Alternative 1 would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard. This is because the campus will continue to implement the existing TDM program, energy conservation efforts, and Best Available Control Technology (BACT) programs that reduce the emissions that would otherwise be generated by the campus by substantially more than one percent on an annual basis. This meets the AQMP performance standard for annual emissions reductions. The UCLA campus would continue to implement these programs under the 2002 LRDP or Alternative 1. Therefore, under Alternative 1, the resulting net increase in daily operational emissions during the regular and summer sessions would be slightly less than the emissions generated under the 2002 LRDP.

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Implementation of the 2002 LRDP would not expose sensitive receptors near roadway intersections to substantial pollutant concentrations. Alternative 1 would generate less vehicular traffic to and from the campus than under the 2002 LRDP and localized concentrations of carbon monoxide (CO) would be incrementally lower under this alternative. The resulting impact would remain less than significant under either development scenario.

Neither the 2002 LRDP or Alternative 1 would increase the demand for public transit service to and from the UCLA campus. Therefore, neither development scenario would expose sensitive receptors near roadway intersections to substantial pollutant concentrations due to increased bus activity.

Implementation of the 2002 LRDP would not expose sensitive receptors on or off campus to substantial pollutant concentrations due to campus-generated toxic air emissions. Although a similar amount of development would occur under Alternative 1, more educational space would be constructed. This educational and laboratory space has the potential to generate slightly greater amounts of toxic air contaminants than the residential uses proposed under the 2002 LRDP. Although this potential impact is expected to remain less than significant under Alternative 1, the impact could be slightly greater than under the 2002 LRDP.

The 2002 LRDP and Alternative 1 would not create objectionable odors affecting a substantial number of people. The types and amount of construction equipment used at the campus that might generate odors would be the same under either development scenario. Potential operational airborne odors could result from cooking activities associated with dining facilities, if constructed, and impacts would be similar under either scenario.

Noise and Vibration

No new student housing units would be constructed at the campus under Alternative 1. Therefore, as with the 2002 LRDP, this alternative would not expose new on-campus student residential uses to noise levels in excess of the State's 45 dBA CNEL interior noise standard.

Construction activities under Alternative 1 or the 2002 LRDP that occur in close proximity to existing buildings at the campus could generate and expose persons on-campus to excessive groundborne vibration or groundborne noise levels. Groundborne vibration from construction activities would not significantly impact off-campus locations under either development scenario. When construction activities are not occurring at the campus, background operational vibration levels would be expected to be very low and not noticeable. This would occur under the 2002 LRDP or Alternative 1, and impacts would be less than significant.

Alternative 1 would generate a slightly reduced amount of daily vehicular traffic than the 2002 LRDP during the regular and summer sessions. Therefore, roadway noise impacts would be slightly less and a less-than-significant impact would occur under both development scenarios.

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A similar amount of new stationary sources of noise would be added to the campus under both the 2002 LRDP and Alternative 1. This equipment would be shielded and appropriate noise muffling devices installed to reduce noise levels that affect nearby on- and/or off-campus noise-sensitive uses. As such, the noise levels generated by this new equipment would not cause a substantial permanent on- or off-campus increase in ambient noise levels under either development scenario.

Construction activities under Alternative 1 would be similar to those of the 2002 LRDP. As such, construction noise levels could substantially increase existing noise levels at on-campus or off-campus locations under either development scenario. Following PP 4.9-8(a) through PP 4.9-8(d) and PP 4.9-9 minimizes construction noise impacts to these locations. They would not, however, ensure that noise levels do not increase by less than 10 dBA at noise sensitive uses located in close proximity to the construction sites. Therefore, this impact would be significant and unavoidable under either the 2002 LRDP or Alternative 1.

Implementation of the 2002 LRDP would not expose additional students, faculty, and visitors within the UCLA campus to excessive noise levels generated by helicopter operations. Because the number of students, faculty, and visitors would be similar under the 2002 compared to Alternative 1, this impact would continue to be less than significant under this alternative.

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Population and Housing

For Alternative 1, it is assumed that future growth in campus population would be consistent with the projections provided in the 1990 LRDP. Development of an additional 1.7 million gsf would result in a total headcount of 55,507 faculty, staff, and students, and an average weekday campus population of 58,420. As with the 2002 LRDP, this alternative would not require the demolition of any existing on-campus housing or displace substantial numbers of people; therefore, the construction of replacement housing would not be necessary. This alternative would result in a lower estimated average weekday campus population by approximately 3,111 persons, compared to the 2002 LRDP, and as with the 2002 LRDP, would not induce substantial population growth, either directly or indirectly, and a less-than-significant population impact would occur.

Because this alternative would not include the NHIP, no additional on-campus housing would be provided. The projected increase in campus population would be less than the 2002 LRDP, and this alternative similarly would not induce substantial population growth, either directly or indirectly. Therefore, a less-than-significant off-campus housing impact would occur under this alternative, as with the 2002 LRDP.

Public Services

Police Services

As reflected in Section 4.11 (Public Service, Police Protection), to estimate the number of police officers required to serve the campus population, a ratio is applied to the population level. Estimated staffing to population ratios at all UC campuses range from 0.7 to 1.6 sworn officers per 1,000 population, and UCLA currently provides a ratio of approximately 1 sworn officer per 1,000 population.

Based upon an anticipated average weekday campus population of 58,420 in 2010–11 for this alternative, the provision of between 41 and 93 sworn officers would continue to serve the campus population at the same level of service documented for other UC campuses (assuming a ratio of between 0.7 and 1.6 sworn officers per 1,000 population). The campus currently provides 60 sworn officers, as well as CSOs and parking patrol officers, which is well within the University-wide range to serve the campus under full implementation of the 2002 LRDP. The campus monitors police staffing levels on an ongoing basis as individual development projects are proposed, and on an annual basis as part of the campus budgeting process to ensure that adequate police protection continues to be provided.

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If the enrollment growth of 4,000 FTE were not accommodated, and existing police staffing levels remained the same, the campus would continue to provide adequate police protection services through 2010, but for a reduced campus population. In addition, because additional housing would not be provided under the alternative, police protection services for new UCLA-owned housing facilities would not be necessary. In summary, the less-than-significant impacts to police services under this alternative would be slightly reduced as compared to the less-than-significant impacts identified under the 2002 LRDP.

Schools

Alternative 1 would result in additional academic and staff employees with school-age children. For purposes of evaluating impacts to school capacity, Alternative 1 assumes the same distribution pattern (by zip code) of existing academic and staff employees as the 2002 LRDP. Similar to the 2002 LRDP, it also assumes that all employee households are all net new households, when in fact, the staff employees, which constitute most of the employment growth, are probably already located in the region. Moreover, the foregoing assumes that all of these households have school-age children and that all of these school-age children (elementary, middle school, and high school students) would attend public schools, while it is probable that some percentage of these students would attend private schools.

Based upon these assumptions, the highest concentration of students would be located in the 56 schools on the Westside, and the LAUSD estimates that the operating capacity of these 56 schools will far exceed the enrollment. However, it is recognized that other areas of the City of Los Angeles served by the LAUSD might accommodate students associated with UCLA academic and staff employees, and some of these currently experience overcrowded conditions at various locations, particularly within the South Central, Northeast, East Valley and Downtown areas of Los Angeles. While the number of employee households residing in each of these areas is relatively small when compared to West Los Angeles (see Table 4.11-3, Distribution of 2002 LRDP Employee Households within LAUSD, in Section 4.11, Public Services, of this document), the impacts of employee household growth in these areas could be greater due to currently overcrowded conditions. However, according to the LAUSD's adopted Strategic Execution Plan, dated December 18, 2001, the LAUSD will add an additional 76,831 seats in 158 separate capital projects (including 78 new schools and additional space at 60 additional existing schools) by 2007. According to the Strategic Execution Plan, over $3.1 billion from Proposition BB, Proposition 1A, and other state funds and bonds will be allocated to fund this construction program during this same period. The largest portion of this new construction to provide additional capacity will be in those areas of the LAUSD that are currently operating under overcrowded conditions. Therefore, because the percentage of UCLA employee households residing in any single school district other than the LAUSD is very low, the impact on other districts will be less than the impact on the LAUSD.

Therefore, as with the 2002 LRDP, a less-than-significant impact would occur and no new or physically altered school facilities would be required.

Recreation

For the 2002 LRDP, the projected average weekday population during the regular session (the period of highest campus population) would yield a parkland-to-population ratio of 0.89 acre per 1,000 campus population, which falls within the range of parkland provided by the City of Los Angeles of approximately 1 acre per 1,000 persons and the 0.8 acre per 1,000 persons contained within the Westwood Community Plan Area (these ratios include both existing and proposed recreational facilities). Under Alternative 1, the future average weekday campus population would be less than under the 2002 LRDP, which would increase the acreage of parkland provided per 1,000 persons. However, the recreational component of the NHIP would not be constructed. Because the increased campus population that would result from the 2002 LRDP could be adequately served by existing and approved on-campus recreational facilities, the reduced campus population that would result from Alternative 1 could also be adequately served by on-campus recreational facilities.

Transportation

Under this alternative, as with the 2002 LRDP, an additional 1.7 million gsf of new development would occur, and the on-campus parking inventory would continue to be limited to 25,169 spaces. Thus, growth in faculty, staff and visitors that would occur under Alternative 1 would have to be accommodated within the same number of parking spaces as with the 2002 LRDP. Under Alternative 1, no additional on-campus student housing would occur, therefore no increase in the number of residential students would occur.

Using the estimate of campus population provided in the 1990 LRDP, and the future "Without Project" trip generation rates provided in Table 4.13-17 of Volume 1 of this EIR for the 2002 LRDP, an estimate of future trip generation during regular session for Alternative 1 was developed, as shown in Table 6-3 (Future Vehicle Trip Generation with Alternative 1—Regular Session [2010–11]).

Table 6-3 Future Vehicle Trip Generation with Alternative 1—Regular Session (2010–11)

Permit Group	Number	Daily Trips	A.M. Peak Hour Trips	P.M. Peak Hour Trips
Faculty & Staff				
Health Sciences	6,595	9,921	1,252	1,285
General Campus	15,350	28,572	2,504	3,323
Residents				
Undergraduate Students	7,334	1,366	19	113
Graduate Students	2,000	1,917	182	201
Commuter Students				
Academic Student Employee	3,219	4,339	453	529
Other Commuter Students	21,757	13,166	874	1,183
Other Permits				
Quarterly Guest/Emeritus	6,238	10,637	1,123	565
University Extension	5,870	10,010	—	—
Daily Permit Sales	6,747	20,574	1,187	1,039
Other Parking (e.g., meters)		3,931	85	328
Through Traffic/Drop Offs/Deliveries/ Two-Wheeled Vehicles		22,042	1,345	1,169
Campus Shuttles		2,948	229	245
Main/Southwest Campus Total		*129,423*	*9,253*	*9,970*
Wilshire Center	950	1,768	155	206
Cordon Total		***131,191***	***9,408***	***10,176***

Source: Crain and Associates, October 2002

Alternative 1 would result in an estimated trip generation that is essentially the same as under the 2002 LRDP. (Although more trips would be generated by faculty and staff, compared to the 2002 LRDP, fewer trips would be generated by commuter students.) Because trip generation would be the same, regular session traffic impacts would be the same as under the 2002 LRDP, and would result in significant and unavoidable traffic impacts.

Using the estimate of campus population provided for the 1990 LRDP, and the future "Without Project" trip generation rates provided in Table 4.13-17 of Volume 1 of this EIR for the 2002 LRDP, an estimate of future trip generation during summer session for Alternative 1 was developed, as shown in Table 6-4 (Future Vehicle Trip Generation with Alternative 1—Summer Session (2010–11]).

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Table 6-4 Future Vehicle Trip Generation with Alternative 1—Summer Session (2010–11)

Permit Group	Number	Daily Trips	A.M. Peak Hour Trips	P.M. Peak Hour Trips
Faculty & Staff				
Health Sciences	6,595	8,929	1,127	1,156
General Campus	15,350	25,715	2,254	2,961
Residents				
Undergraduate Students	715	363	5	30
Graduate Students	599	574	56	60
Not Enrolled/Employed Off-Campus	1,401	4,964	392	560
Conference Attendees	1,395	1,136	16	94
Commuter Students				
Academic Student Employee	2,049	2,486	259	303
Other Commuter Students	7,710	6,294	418	565
Other Permits				
Quarterly Guest/Emeritus	6,238	10,637	1,123	565
University Extension	5,870	10,010	—	—
Daily Permit Sales	6,747	20,574	1,187	1,039
Other Parking (e.g., meters)		3,931	85	328
Through Traffic/Drop Offs/Deliveries/ Two-Wheeled Vehicles		22,042	1,345	1,169
Campus Shuttles		2,948	229	245
Main/Southwest Campus Total		*120,603*	*8,495*	*9,075*
Wilshire Center	950	1,768	155	206
Cordon Total		***122,371***	***8,650***	***9,281***

Source: Crain and Associates, October 2002

Although no growth in summer session enrollment would occur under Alternative 1, faculty, staff and visitors would increase as a result of future development, which would result in an increase in summer session traffic as compared to existing conditions. Future vehicle trip generation in the summer would be approximately 1,836 daily trips less for Alternative 1 than under the 2002 LRDP, but significant impacts would still occur, but at fewer intersections.

As described in the air quality discussion for Alternative 1, while the NHIP would not be constructed as part of this alternative, construction activities under Alternative 1 would be similar to those of the 2002 LRDP since the same overall amount of development would occur, and another construction project, or combination of projects, could result in similar construction impacts compared to those estimated for the

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NHIP. Therefore, impacts associated with construction trips would be the same as with the 2002 LRDP, and would be significant and unavoidable at some locations. Because overall trip generation would be the same as with the 2002 LRDP, impacts on roadways designated by the Los Angeles County Congestion Management Program would be the same as with the 2002 LRDP, and would be less than significant. As with the 2002 LRDP, implementation or construction of Alternative 1 would not substantially increase design hazards due to design features or incompatible land uses. Implementation and construction of Alternative 1 would not result in inadequate emergency access, as with the 2002 LRDP, and impacts would be less than significant.

Under Alternative 1, the on-campus parking inventory would remain limited to 25,169 spaces. As no increase in on-campus housing would occur, no reduction in commuter students would occur, and with an estimated growth in faculty, staff, and visitors, the supply of parking available to commuter students would be reduced. However, because the parking levels would remain at 25,169 spaces, parking impacts would be the same as with the 2002 LRDP, and would be less than significant.

Under Alternative 1, it is assumed that the campus TDM program would continue, therefore Alternative 1 would not conflict with adopted plans, policies and programs supporting alternative transportation and impacts would be less than significant, similar to the 2002 LRDP. Because Alternative 1 would result in reduced allocation of parking spaces for commuter students, this alternative would result in an increase in public transit ridership. However, because the growth in total campus population would not be substantial, the increase in transit ridership is not anticipated to exceed the capacity of service providers, and impacts would be less than significant, although impacts would be greater than the 2002 LRDP. Under Alternative 1, no increase in summer enrollment would occur, and any increase in public transit ridership in the summer would be less than the 2002 LRDP, and a less-than-significant impact would occur.

Relationship to Project Objectives

Although Alternative 1 would allow for full development envisioned under the project, while maintaining the existing vehicle trip limits and parking limits, it would not meet the 2002 LRDP objective of accommodating an increase of 4,000 FTE students at UCLA. Therefore, while the State has mandated that the UC accommodate enrollment growth resulting from a projected increase in the number of high school graduates over the next decade, UCLA would not absorb its share of that growth (4,000 FTE students) as directed by the UC. By limiting the campus population to the 1990 LRDP levels, including the student population, the University would not achieve the 2002 LRDP objective that seeks to ensure student access in a manner consistent with the Master Plan for Higher Education in California, while continuing to enhance the quality of the academic program and meeting the University enrollment growth target to accommodate an additional 4,000 FTE students at UCLA by 2010–11.

Student housing would not be provided under this alternative, which would result in a higher unmet demand for student housing than the 2002 LRDP. The housing goals of the 1990 or 2001 Student Housing Master Plan would not be met with respect to the percentage of students housed in University-owned or private-sector housing (within walking distance to campus). The 2002 LRDP objective of developing on-campus housing to enhance the educational experience for students and continuing the evolution of UCLA from a commuter to a residential campus would not be met and in particular the reduction in the triple room accommodations for students housed on campus would not be realized.

Lastly, this alternative would hinder the objectives of the campus to further its academic, research, and public service mission because it does not allow for the State-mandated enrollment growth or provide campus housing to accommodate student needs.

6.3.2 Alternative 2—Off-Site Alternative

Description

The Off-Site Alternative would result in the development of the 1.71 million gsf previously allocated under the 1990 LRDP on a 35-acre site in the City of Los Angeles (Playa Vista) instead of at the UCLA campus. Under this alternative, it is assumed that specific academic programs could be relocated to a self-contained satellite campus that would operate independently of the main UCLA campus. These programs could include graduate professional programs, such as the Law School, the Anderson Graduate School of Management (AGSM), or the Graduate School of Education and Information Systems, or other discrete academic programs. It is further assumed under this alternative (1) that the on-campus space previously occupied by these relocated programs would be used to house existing and expanded undergraduate programs required to accommodate the growth of 4,000 FTE students and (2) that a number of people, equivalent to the growth proposed under the 2002 LRDP, would relocate to the alternative site, such that the on-campus population would remain unchanged under this alternative.

Graduate housing and associated recreational amenities and parking would also be provided under the Off-Site alternative. In this regard, it is assumed that the graduate housing provided under the Southwest Campus Housing and Parking Project, which is located on the main campus, would be used to accommodate the housing needs for undergraduates since the NHIP would not be constructed under this alternative. Therefore, no new on-campus development would occur under this alternative beyond completion of the projects currently under construction, approved, or for which an environmental document has been prepared in accordance with CEQA. Additionally, the satellite campus would include graduate housing and approximately 100,000 gsf of new recreational and support uses to serve the relocated academic programs, utilizing the same on-campus ratio of landscaping to hardscape (approximately 36 percent landscaping to 64 percent hardscape). This would result in approximately 615,000 sf of landscaped areas and 1.1 million sf of hardscape area. Alternative 2 provides the same population levels as compared to the 2002 LRDP, with the portion associated with the off-site programs accommodated at the off-site location.

The graduate professional schools and programs would be relocated to a portion of the Playa Vista Phase II Development site located in the City of Los Angeles, north of the community of Westchester, east of Playa del Rey and Marina del Rey, west of the San Diego (450) Freeway, and south of the Marina (90) Freeway, approximately eight miles southwest of the Westwood campus. The Playa Vista Phase II site is currently owned by Playa Capital Company and consists of 723 acres and is divided into four quadrants:

- *Area A*—138 acres, located southeast of Lincoln Boulevard and Jefferson Boulevard
- *Area B*—299.2 acres, located southwest of Lincoln Boulevard and Jefferson Boulevard. The Ballona Wetlands is located on this site.
- *Area C*—68.9 acres, located northwest of Lincoln Boulevard and Jefferson Boulevard
- *Area D*—158.9 acres, located northeast of Lincoln Boulevard and Jefferson Boulevard

A majority of the Playa Vista site is undeveloped and can be accessed from Jefferson Boulevard, Culver Boulevard, Lincoln Boulevard, and Sepulveda Boulevard.

In evaluating other sites for this alternative, properties within a 10-mile radius of the main UCLA campus were considered. While the off-site alternative is intended to function as a satellite campus, duplication of some services, such as health care and/or administration, would not be provided; therefore, a 10-mile radius would be an important criteria in the selection of an alternative site in order to maintain relative ease of access to main-campus facilities as needed. Additional criteria for selection of the alternative site included a minimum of 35 acres of undeveloped land that could reasonably be expected to be available for acquisition. The site must also have access to regional surface and air transportation. The Playa Vista site was determined to be the most feasible site that meets these criteria. Other sites that were considered, but rejected as infeasible according to the selection criteria, included the Santa Monica

Airport, Sepulveda Basin Recreation Area, Veterans Administration, Westchester Bluffs, Bel Air Country Club, Los Angeles Country Club, Brentwood Country Club, Hillcrest Country Club, and the Riviera Country Club.

Comparison of Environmental Effects

Aesthetics

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This alternative would have the potential for significant impacts on aesthetics, because the new development would occur on an open, undeveloped portion of the Playa Vista site. Scenic vistas may generally be described in two ways: panoramic views (visual access to a large geographical area, for which the field of view can be wide and extend into the distance) and focal views (visual access to a particular object, scene, setting, or feature of interest). With implementation of this alternative, both focal views and panoramic views would be affected. As an undeveloped site, the conversion of open space to urban uses would fundamentally change the visual character of the site as viewed from the Westchester bluffs to the east, which provide panoramic views to the site, and from adjacent land uses, which provide focal views to the site. However, the portion of the site considered for this alternative does not contain any significant visual resources, such as unique landforms, dense vegetation, or visually important structures (i.e., historic buildings). Because the project would fundamentally change the visual character of the site, this impact would be greater than the proposed project's less-than-significant impact, but it would remain less than significant.

There are two scenic highways designated in the Westchester–Playa del Rey Community Plan: (1) Vista del Mar from the boundary of the City of El Segundo to Culver Boulevard and (2) Culver Boulevard to the boundary of Ballona Creek. These highways are not designated as state scenic highways by the California Department of Transportation (Caltrans), and are not located in close proximity to the alternative site. Therefore, there would be no impact of Alternative 2 on state scenic highways, and no impact on locally designated scenic highways. Sunset Boulevard, tracing the northern boundary of the UCLA campus, is identified as a scenic highway in the City of Los Angeles General Plan. Impacts of the 2002 LRDP with regard to Sunset Boulevard were determined to be less than significant, so impacts under the 2002 LRDP are comparable to this alternative. With respect to scenic corridors, the Westchester-Playa del Rey Community Plan, Playa Vista Area Specific Plan, and Playa Vista First Phase Project EIR identify no scenic corridors in the vicinity of the project site. No scenic corridors were identified for the 2002 LRDP. Therefore, there would be no impacts on identified scenic corridors for either this alternative or the proposed project. There would be no impact with regard to scenic highways under both this alternative and the proposed project.

Further, development of this alternative would create new sources of light and glare in an undeveloped area, which could adversely affect day and nighttime views through the provision of structures and nighttime lighting. This could be a potentially significant impact. Potentially significant impacts of light and glare under the 2002 LRDP were found to be less than significant with mitigation, and similar mitigation measures would be included as part of this alternative. However, as this site is undeveloped, the introduction of new sources of light and glare would result in a greater impact as compared to the 2002 LRDP, which proposes infill development. Therefore, impacts with regard to light and glare would be significant under this alternative as compared to the less-than-significant impact identified under the 2002 LRDP. While mitigation measures could help reduce this impact, impacts would remain significant and unavoidable.

Visual quality impacts related to the general character of future project sites (e.g., loss of open space areas, natural vegetation), components of their visual settings (e.g., architectural styles or mature landscaping), and the visual compatibility between proposed campus uses and adjacent land uses could occur. Determining the significance of visual impacts is inherently subjective, because individuals respond differently to changes in the visual characteristics of an area. Development on this site would intensify land use and could result in visual quality impacts, depending upon the location, mass, and height of new structures relative to adjacent land uses. According to the Playa Vista Area Specific Plan, the site is currently zoned for commercial, manufacturing, and residential uses. Therefore, this alternative, with its components of academic, housing, and creational uses, would in all probability be visually compatible with the surrounding mixed-use neighborhood. Similar to the proposed project, which resulted in a less-than-significant impact on visual quality, this impact would be less than significant, although at a somewhat greater level of significance due to the previously undeveloped nature of the site and the magnitude of the visual alterations.

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Air Quality

Development under Alternative 2 would not conflict with or obstruct implementation of the 1997 AQMP and the 1999 Amendment for Ozone. This is because Alternative 2, as with the proposed project, would not provide for population, housing, or employment growth that exceeds forecasts from the Growth Management Chapter of the RCPG, which forms the basis of the land use and transportation control portions of the AQMP. As relatively self-contained graduate programs would be candidates for relocation to the alternative site, which would utilize on-site resources, and graduate housing and recreational facilities would be provided on site, this alternative would not be expected to result in additional vehicular trips or affect trip reduction programs. Therefore, under this alternative the impact on air quality as a result of additional vehicular trips would be the same as the less-than-significant impact identified under the 2002 LRDP.

Construction activities under Alternative 2 would be greater than those of the 2002 LRDP because the site is undeveloped and utility and circulation infrastructure would need to be built in order to support the development of the 1.7 million gsf. As such, the net increase in daily construction emissions would exceed daily thresholds recommended by the SCAQMD and be considered significant and greater than under the 2002 LRDP. Following PP 4.2-2(a) through PP 4.2-2(c) ensures that construction-related air quality impacts are minimized to the maximum extent feasible. They would not, however, reduce the net increase in peak construction activities to below the thresholds of significance recommended by the SCAQMD, and this impact would be significant and unavoidable under Alternative 2 to a greater extent than under the 2002 LRDP.

Alternative 2 would not result in greater trip generation than the 2002 LRDP, since the programs relocated to the site would be self-contained, and housing and recreational facilities would be provided. Therefore, daily operational emissions would be the same as those calculated under the 2002 LRDP. The net increase in daily emissions during the regular session would not exceed the thresholds of significance recommended by the SCAQMD and the impacts would be less than significant, as with the 2002 LRDP for the regular session. During the twelve-week summer session, daily operational emissions would be increased with CO, VOC, and NOx emissions that exceed the SCAQMD's recommended threshold of significance. Consequently, implementation of this alternative would contribute substantially to an existing or projected air quality violation during the twelve-week summer session, as would the 2002 LRDP, and would result in a similar significant and unavoidable operational air quality impact.

As with the 2002 LRDP, Alternative 2 is not expected to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard. This is because the campus will continue to implement the existing Transportation Demand Management (TDM) program, energy conservation efforts, and Best Available Control Technology (BACT) programs at the main campus and any outlying campus locations. These measures would continue to reduce the emissions that would otherwise be generated by the campus by substantially more than one percent on an annual basis. This meets the AQMP performance standard for annual emissions reductions. The UCLA campus would continue to implement these programs under the 2002 LRDP or Alternative 2. Therefore, as with the 2002 LRDP, Alternative 2 would not result in a cumulatively considerable net increase of any criteria pollutant.

Implementation of the 2002 LRDP would not expose sensitive receptors near roadway intersections to substantial pollutant concentrations. Similarly, Alternative 2 is not expected to significantly impact sensitive receptors in the vicinity of Playa Vista, since traffic conditions would be similar to those around the UCLA campus. The resulting impact would remain less than significant under either development scenario.

Implementation of the 2002 LRDP would not expose sensitive receptors on or off campus to substantial pollutant concentrations due to campus-generated toxic air emissions. Because the same amount of development would occur under Alternative 2, assuming similar uses and operations, the potential for the alternative to expose sensitive receptors in the vicinity of the site to toxic air contaminants would be less than significant. Therefore, this impact would be less than significant under either the 2002 LRDP or Alternative 2.

The 2002 LRDP and Alternative 2 would not create objectionable odors affecting a substantial number of people. The types and amount of construction equipment used at the alternative site that might generate odors would be the same under either development scenario. Potential operational airborne odors tbat could result from cooking activities associated with the new student housing units would be the same as under the 2002 LRDP, and the same less-than-significant impact would occur.

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Biological Resources

The Playa Vista site has over 190 acres of federally designated wetlands, and there are plans to restore over 340 acres of wetlands and the habitats they provide. Because of the biological sensitivity of this area, Alternative 2 would have the potential to cause significant adverse impacts on biological resources and riparian habitat and could reduce acreage otherwise available for restoration. The 2002 LRDP determined this impact to be not significant, as the only area of riparian habitat on campus, Stone Canyon Creek, is not characterized by any officially designated sensitive riparian community. Therefore, impacts of this alternative could be potentially significant as compared to the proposed project's less-than-significant impacts. Appropriate mitigation could reduce this potential impact to a less-than-significant level, but residual impacts would remain at a higher level of significance than for the proposed project.

Additionally, habitat modifications that reduce nesting opportunities for resident and migratory avian species of concern and raptors within the off-site alternative area could occur during construction of buildings under this alternative. Because the Playa Vista site is more sensitive biologically, construction activities could interfere with the movement of resident and migratory avian species of special concern and raptors to a greater extent than under the 2002 LRDP. While these impacts are mitigable to a less-than-significant level, similar to the proposed project, the residual impacts on movement of migratory avian species would be greater, although still less than significant, as with the 2002 LRDP.

Cultural Resources

Since the alteration or demolition of existing buildings would not be required, construction on the alternative site would not have any effect on structures or resources that have been designated as eligible or potentially eligible for listing on the NRHP or CRHR. There would be no impacts to historic structures on the alternative site. No impacts to historic structures were identified under the 2002 LRDP; therefore, impacts to historic structures under this alternative would be the same as under the proposed project.

There are many known archaeological sites scattered throughout the Playa Vista site, including two prehistoric shell middens, and Alternative 2 would have the potential to cause significant adverse impacts on cultural resources due to excavation and other ground disturbance during construction. Since the potential for encountering archaeological resources on the campus is low, the impact of this alternative on archaeological resources would be greater than under the 2002 LRDP. However, similar to the less-than-significant impacts associated with the proposed project, incorporation of mitigation measures would result in less-than-significant impacts, though still greater, for Alternative 2 than the 2002 LRDP.

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Similar to the campus, there are also known paleontological resources, including alluvium rock units and potential fossiliferous rock units, on the Playa Vista site, and potentially significant impacts could occur due to construction activities that could damage or destroy previously unknown paleontological resources. Since the alternative site is largely undeveloped, the potential for discovery of paleontological resources is greater than on the main campus. With incorporation of mitigation measures, paleontological impacts under this alternative would be reduced to a less-than-significant level, though greater than the proposed project. In addition, construction activities associated with this alternative could result in a greater likelihood of the disturbance of human remains. However, with incorporation of mitigation measures, impacts associated with the disturbance of human remains would be less than significant under this alternative, similar to the less-than-significant impact under the proposed project.

Since Alternative 2 would occur on a previously undeveloped site and, conversely, a large portion of the ground on campus has already been disturbed, Alternative 2 would have a greater overall impact upon cultural resources, though still less than significant with mitigation, as compared to the less-than-significant impacts anticipated to occur under the 2002 LRDP.

Geology and Soils

The entire southern California basin is located within a seismically active area. As the Playa Vista site is located approximately eight miles southwest of the campus, bounded on the north and south by two faults of a fault zone that is expected to produce maximum credible earthquakes of magnitude 6.0 or greater, and in close proximity to several active faults, the potential for exposure of people and/or structures to potentially substantial adverse effects resulting from seismic groundshaking exists similarly both on and off campus, and these impacts are substantially similar under both this alternative and the proposed project. However, all development would be subject to all applicable provisions of Title 24 of the CBC and a certified Engineering Geologist or Licensed Geotechnical Engineer would prepare site-specific geotechnical studies prior to construction of this off-site alternative. As such, with incorporation of the same mitigation measures recommended for the proposed project, impacts associated with seismic groundshaking would be reduced to a less-than-significant level. This impact would be the same as the less-than-significant impact after mitigation under the proposed project.

Also similar to the proposed project, excavation of soils in association with development could result in substantial soil erosion and the loss of topsoil. The Playa Vista site is largely undeveloped and soils are currently exposed, and could be eroded by wind or water. Construction activities under this alternative would be required to obtain NPDES permits that would minimize erosion impacts during construction. Erosion impacts during construction activities would be less than significant under both Alternative 2 and the proposed project with incorporation of best management practices and compliance with all applicable regulations related to erosion control.

Development of 1.71 million gsf on the Playa Vista site would result in conversion of greater amounts of permeable surfaces to impermeable surfaces, which would increase runoff, in comparison with the 2002 LRDP. The increase in flows could result in a substantial increase in operational erosion. Implementation of best management practices to control operational erosion would likely reduce this impact to a less-than-significant level. Therefore, substantial erosion is unlikely to occur on an operational basis. Similar to the less-than-significant impacts associated with the proposed project, incorporation of mitigation measures would result in less-than-significant, though still greater, impacts for implementation of Alternative 2.

Implementation of Alternative 2 could subject people and structures to hazards associated with landsliding, lateral spreading, subsidence, liquefaction, collapse, or differential settlement, or result in construction of facilities on expansive soils. The site has been identified as an area subject to liquefaction. However, identical to the proposed project, development under this alternative would be required to comply with applicable provisions of Title 24 of the CBC and site-specific geotechnical investigations would be performed for the Playa Vista site. As such, impacts under this alternative and the proposed project would be potentially significant and, with incorporation of recommended mitigation measures, impacts would be reduced to the same less-than-significant level under this alternative and the 2002 LRDP

The existence of expansive soils on the site is unknown. The 2002 LRDP determined a less-than-significant impact with regard to construction on expansive soils on campus. There is the potential for expansive soils to exist on the alternative site and, therefore, this impact could be of greater significance than the 2002 LRDP. A geotechnical investigation would be required prior to project approval to determine the existence of expansive soils, if any, on the alternative site.

Hazards and Hazardous Materials

The alternate site is not located within any airport land use plan or within 2 miles of a private airport. Therefore, similar to the proposed project, there would be no impact relative to hazards from airport operations. The site is similarly not located within an area subject to the risk of wildland fires, and the no impact is identical to the no impact under the 2002 LRDP.

Alternative 2 would use, transport, and dispose of similar amounts of hazardous materials as the 2002 LRDP, as overall development and campus uses would remain the same. Impacts with respect to hazardous materials use, transport, and disposal would remain less than significant, similar to the proposed project.

Given that the Alternative 2 site is undeveloped, the amount of hazardous materials used on and transported to and from the Playa Vista site would increase over existing conditions, which could expose people in the Playa Vista area to potential health risks in the event of an accident or accidental release under this alternative. However, hazardous materials used at the off-site location would be typical of academic and residential uses, including pesticides and cleaners in small quantities. Laboratory chemicals would not be used on the site. The risk of upset would be concomitantly less as well, as fewer chemicals would be handled and transported at the alternate site. Therefore, hazardous materials impacts would be less than the 2002 LRDP less-than-significant impact.

Implementation of Alternative 2 would not involve the renovation or demolition of buildings or relocation of underground utilities that contain hazardous materials. This alternative would not expose construction workers or occupants to significant health and safety risks from building demolition. Therefore, this alternative would have no impact resulting from demolition of buildings, compared to the less-than-significant impact resulting from building demolition under the 2002 LRDP.

During construction and operation of this alternative, building occupants and construction workers could be exposed to contaminated soil or groundwater, particularly if the alternative site contains old oil fields or abandoned dumps from previous industrial uses on the site. Since information pertaining to hazardous materials on the Playa Vista site is not available, it is assumed that development of this alternative could result in construction of facilities on sites containing hazardous materials, particularly given the previous uses of the site (i.e., construction and storage of airplanes). Incorporation of PP 4.6-1 and 4.6-4, which require specific procedures to be implemented in the event that contaminated soil or groundwater is discovered, and compliance with federal, State, and local regulations, would ensure that this impact would be less than significant. However, given the previous uses of the site, this impact could be greater than the less-than-significant impacts under the 2002 LRDP.

Implementation of this alternative could result in hazardous emissions or require the handling of significant amounts of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, depending on the location of the satellite campus relative to the proposed elementary school. While hazardous materials and waste could be handled within one-quarter mile of an existing or proposed school as a result of implementation of this alternative, these materials would not exist in quantities significant enough to pose a risk to occupants of the school or the campus community. As noted above, no laboratories would be included in this alternative, and the types and quantities of hazardous chemicals used would not present a significant hazard to either campus or adjacent uses. In any event, the campus would continue to comply with the provisions of Section 15186 of the CEQA Guidelines, as it applies to any future development, which requires that the campus consult with the affected school district regarding the potential impact of the project when circulating the environmental document, and notify the affected school district in writing prior to approval and certification of the environmental document. This impact would be considered less than significant, the same as the less-than-significant impact identified under the 2002 LRDP.

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It is unknown whether portions of the alternative site are included on any lists of materials sites compiled pursuant to Government Code Section 65962.5 that could create a significant hazard to the public or the environment. Since a records search for existing sites containing hazardous materials was not available for the Playa Vista site, it is assumed that development of this alternative could result in construction of facilities on sites containing hazardous materials especially related to prior industrial uses. As noted above, prior to development, a records search that identifies contaminated sites compiled by federal, State, and local agencies would be performed such that the extent of contamination, if any, would be identified and remediated prior to construction. Therefore, as with the 2002 LRDP this impact would be less than significant.

Development of the proposed uses at the Playa Vista site would not expose students, faculty, or visitors to safety hazards associated with helicopter operations, since a helipad would not be provided at this alternative site. Impacts under this alternative associated with safety hazards due to helicopter operations for the occupants of the Playa Vista site would not occur, in contrast to the less-than-significant impacts identified for the 2002 LRDP.

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During construction of Alternative 2, activities could physically interfere with an adopted emergency response or emergency evacuation plan. Similar to the proposed project, mitigation would be recommended that would require at least one unobstructed lane to be maintained in each direction at all time within the construction area, and appropriate signage indicating alternative travel routes. In addition, UCLA would be required to consult with the local police, fire, and emergency service providers in the vicinity to disclose temporary lane or roadway closures and alternative travel routes. Impacts under this alternative would the same as under the 2002 LRDP, and would be less than significant.

Hydrology and Water Quality

This alternative could expose people or structures to a significant risk of loss, injury, or death involving inundation by tsunami due to its proximity to the Pacific Ocean. A tsunami is a great oceanic wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance, such as tectonic displacement of the sea floor associated with large, shallow earthquakes. This impact would be greater than the no impact identified under the 2002 LRDP.

As with the 2002 LRDP, this alternative would not be anticipated to violate any water quality standards or waste discharge requirements. Neither the satellite campus nor the main campus is considered a point source for waste discharges and would not be subject to waste discharge requirements. In addition neither Alternative 2 nor the proposed project would result in hazardous waste discharges into the sewer or storm drainage systems. However, the campus has an industrial wastewater permit for specific discharges associated with the food service, laboratory uses, and the cogeneration facility, and the satellite campus would be expected to obtain an industrial wastewater permit for any proposed food service facilities that qualify under the program (e.g., 150 seats or more). Therefore, this impact would be less than significant, and the same as the less-than-significant impact identified under the proposed project.

There are over 190 acres of delineated wetlands within the Playa Vista site. Due to the sensitive wetland areas within Playa Vista, Alternative 2 has the potential of causing a significant impact on the hydrology and water quality of the Playa Vista area in terms of creating an increased burden on the drainage system by an increase in amount of impervious area. Specifically, development of this alternative would result in an increase of impervious surfaces on the Playa Vista site, which could result in increased runoff. A greater amount of impermeable surfaces would be created under this alternative compared to the 2002 LRDP. With implementation of best management practices to minimize runoff, this impact would be less than significant. Since the implementation of Alternative 2 would require an NPDES permit for construction activities, this increased runoff would not violate any existing water quality standards or waste discharge requirements, or otherwise substantially degrade water quality. Therefore, impacts related to this impact would be less than significant, and the same as under the proposed project.

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Additionally, implementation of Alternative 2 would result in an increase in water demand from LADWP that could indirectly require an increased use of groundwater. Similar to conditions under the 2002 LRDP, the provision of water as a result of project implementation would be within established projections of LADWP. This impact would be the same under this alternative as with the proposed project.

Since the increase in impervious surfaces at the Playa Vista site relative to the increase under the 2002 LRDP would be greater, impacts to groundwater recharge would also be greater than under the proposed project. However, the Playa Vista site is not designated as a groundwater recharge area and, therefore, impacts would be less than significant, and the same as under the proposed project.

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Implementation of Alternative 2 could also alter site drainage patterns that could result in erosion or siltation on or off site. However, as previously discussed, development would be required to comply with NPDES requirements that would ensure that BMPs are implemented and the quality of stormwater would be protected. Development of Alternative 2 would also be subject to the campus programs,

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practices, and procedures recommended for the proposed project, which specifies that project design will include measures to reduce runoff, including the provision of permeable landscaped areas adjacent to structures to absorb runoff and the use of pervious or semi-pervious paving materials. Development of this alternative could alter site drainage patterns, but would not result in localized flooding either on or off site or exceed capacities of existing storm drain system. With the incorporation of the recommended programs, practices, and procedures, impacts would be less than significant, as with the 2002 LRDP.

Additionally, development of this alternative could require the construction of new stormwater conveyance systems or the expansion of existing stormwater conveyance systems. Since the site is currently undeveloped, this potentially significant impact would be greater than the proposed project's less-than-significant impact. Alternative 2 would involve construction of housing within a 100-year floodplain, a potentially significant impact compared to the less-than-significant impact under the 2002 LRDP. Therefore, impacts related to flooding would be greater under this alternative than with the proposed project.

The primary sources of potential water quality degradation have been addressed above, and no other sources of water quality degradation are anticipated in association with implementation of this alternative. Implementation of this alternative would, therefore, not otherwise substantially degrade water quality, and this impact would be less than significant, as with the 2002 LRDP.

The Playa Vista site is not located within any dam inundation area, and no impact would occur under this alternative. This alternative would result in fewer impacts than the proposed project, since potential dam inundation impacts under the 2002 LRDP would be less than significant. In addition, the Playa Vista site is relatively flat, and the potential for mudflows to affect the site would be small. However, the off-site location is located within a 100-year flood plain, and new structures under this alternative could redirect flood flows. Thus, impacts of Alternative 2 relative to risks of flooding would be greater than under the 2002 LRDP.

Land Use and Planning

Development on this alternate site would not physically divide an established community, as the site is primarily undeveloped. As noted previously, construction would also not interfere with any applicable habitat conservation or natural community conservation plan. Therefore, both this alternative and the 2002 LRDP would result in no impacts with respect to this issue area.

Implementation of Alternative 2 could result in land use impacts related to building intensity and compatibility with the adjacent uses of Playa Vista Phase I and Marina del Rey and could adversely affect the biologically sensitive resources in the area. It is assumed that design solutions and appropriate siting of the campus buildings, housing, recreation, and parking would mitigate land use impacts but possibly to a lesser extent than the proposed project's less-than-significant impact. Additionally, development of this alternative would be subject to applicable land use plans, policies, and/or regulations of an agency with jurisdiction over the Playa Vista site. It is assumed that implementation of this alternative would be consistent with the goals and policies of the Southern California Association of Governments Regional Comprehensive Plan and Guide, the Regional Water Quality Control Board's Water Quality Control Plan, and the South Coast Air Quality Management District's Air Quality Management Plan. Therefore, land use impacts under this alternative would be less than significant but to a lesser degree than the proposed project.

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Noise and Vibration

There would be no impact of this alternative on noise levels associated with airport land uses, the same as under the proposed project.

Under Alternative 2, proposed new graduate student housing units would be located on the alternative site. Future noise levels in the vicinity would continue to be dominated by vehicular traffic on the adjacent roadways. Other sources of noise would include new stationary sources (such as rooftop heating, ventilation, and air conditioning equipment) and increased human activity on the site. This development scenario could expose student residential uses to operational noise levels in excess of the State's 45 dBA CNEL interior noise standards, depending on where the housing is situated within the alternative site. This alternative would incorporate the campus programs, policies, and procedures that evaluate potential noise impacts prior to project approval to ensure that interior noise levels would be less than 45 dBA CNEL, consistent with Title 24 of the California Code of Regulations. This impact would be reduced to a less-than-significant level by following this practice, and would result in the same less-than-significant impact as the proposed project.

Construction activities under Alternative 2 could generate and expose persons on or off site to groundborne vibration or groundborne noise levels; however, construction activities would not include pile-driving or other construction practices that cause significant groundborne vibration or noise levels, and certain sensitive land uses (i.e., research facilities with sensitive equipment) would not be located at the satellite campus. Since the site would not be occupied until completion, other sensitive land uses, such as classrooms or libraries, would not be affected by groundborne vibration or noise. Therefore, this impact would be less than significant, as opposed to the significant and unavoidable impacts of the 2002 LRDP.

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Alternative 2 could increase the future roadway noise levels around the Playa Vista site, since additional population would be introduced. As the Playa Vista site is primarily undeveloped, intersections in the vicinity of this site would be anticipated to operate at acceptable levels of service, resulting in a less-than-significant impact to local traffic volumes and associated noise. Following PP 4.9-5(a) and PP 4.9-5(b) and MM 4.9-6, which call for provision of on-campus housing and continuation of the TDM program, this impact would remain less than significant by reducing trip generation during both regular and summer sessions to the maximum extent feasible. On-campus housing reduces the number of people that otherwise would need to commute to and from the campus to attend class. The TDM program reduces the number of motor vehicle trips for campus employees. Because streets in the vicinity of the main campus are congested, and the Playa Vista site is primarily undeveloped and has committed to significant street improvements as conditions of approval, the impact of increased traffic volumes in the Playa Vista area would be less than significant and reduced in magnitude as compared to the 2002 LRDP.

New stationary sources of noise would be added to the Playa Vista site under Alternative 2. This equipment would be shielded and appropriate noise muffling devices installed to reduce noise levels that affect nearby on- and/or off-campus noise-sensitive uses. While the noise levels generated by this new equipment are not expected to cause a substantial permanent on- or off-campus increase in ambient noise levels in this area, because the Playa Vista site is currently primarily undeveloped, the perceived changes and this impact would be slightly greater than under the proposed project, although still less than significant.

As noted earlier, construction noise would not affect satellite campus users, as occupancy would not occur until completion of construction. However, construction activities could affect the existing uses around the Playa Vista site. Planned residential land uses are located in close proximity to the Playa Vista site. It is expected that noise levels could increase by more than 10 dBA at noise-sensitive uses located in close proximity to the construction sites. Also because the site is undeveloped and utility and circulation infrastructure would have to be built, construction activities would be greater than the 2002 LRDP. Therefore, the impacts from construction noise would be greater under this alternative than under the 2002 LRDP. The impacts of construction noise would be significant and unavoidable to a greater extent.

Under this alternative, noise would not be generated by occasional special events, such as outdoor concerts. Therefore, no substantial temporary or periodic increases in ambient noise levels associated with special events would occur. This impact would be reduced as compared to the less-than-significant impact under the 2002 LRDP.

Alternative 2 does not contain a helipad. Therefore, no impacts associated with excessive noise levels associated with helicopter operations would not occur. This impact would be reduced as compared to the less-than-significant impact under the 2002 LRDP.

Population and Housing

Implementation of this alternative would not require relocation of any existing housing, and no impact would occur. Implementation of Alternative 2 would relocate certain students, faculty, and staff to the Playa Vista site. This relocation would not necessitate building replacement housing elsewhere, as housing to accommodate the graduate students is included as a component of the alternative. Therefore, this alternative would not result in any impacts with respect to construction of replacement housing, the same as with the proposed project.

Population, housing, and employment impacts would be anticipated to be the same as under the 2002 LRDP, simply occurring in a different location. Enrollment and staff growth at UCLA is well below the overall population growth anticipated in the City of Los Angeles. Furthermore, some portion of the campus population growth already resides in the region, and the increased campus population could represent an even smaller proportional population growth. Population and employment impacts would increase in the Playa Vista area and would decrease at the existing UCLA campus. Since 2,000 beds of graduate housing would be provided on site under this alternative, there would be no substantially increased demand for housing in the Playa Vista area. Just as with the proposed project, a less-than-significant impact under this alternative would occur.

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This alternative would accommodate the anticipated enrollment growth, and the accompanying population growth, as directed by the UC in response to the State Legislature. In addition, because UCLA is located within the City of Los Angeles, and the growth in UCLA population is well below regional and local growth projections, including the growth projections for the Westwood and Palms/Mar Vista/Del Rey Community Plan Areas established by the City of Los Angeles, this alternative, similar to the 2002 LRDP, has been fully considered and evaluated by local and regional plans and policies developed by the City of Los Angeles and SCAG. Further, Alternative 2 accommodates, rather than induces, population growth. A less-than-significant population impact would occur, the same as the less-than-significant impact under the 2002 LRDP.

If all of the increase in academic and staff employees projected in the 2002 LRDP would occur at the Playa Vista site over the 10-year planning horizon, a maximum of a 0.7 percent increase in jobs as compared to the entire SCAG area would occur (SCAG, 2001 Regional Transportation Plan). However, a portion of these employees already resides in the area and would not require new housing. The specific distribution of faculty and staff housing is speculative and is driven by many factors, such as housing, cost, choice of school district, and personal preferences that are outside of the control or influence of UCLA. Assuming the same employee distribution patterns as for the main campus, given the satellite campus' close proximity, a large portion would be expected to locate in the City of Los Angeles, particularly in neighborhoods on the Westside. A small proportion would reside in other Los Angeles County cities or other areas outside Los Angeles County.

As indicated above, the current vacancy rate for housing in the City of Los Angeles is 4.7 percent, or 62,294 units. In addition, it is expected that additional new housing stock will be constructed in the City of Los Angeles, including low and moderate income housing, in accordance with housing goals and policies set forth in the City of Los Angeles General Plan Housing Element and State law. SCAG's Regional Housing Needs Assessment (2000) has identified that the City of Los Angeles is to provide an additional 60,280 housing units between 1998 and 2005 to accommodate anticipated demand from population growth. While the number of new housing units to be constructed and future vacancy rates are unknown, the relatively small population increases associated with UCLA growth, whether on the main campus or the satellite campus, are included within SCAG projections, and, thus, are imbedded within the anticipated future demand identified by SCAG for housing in the City of Los Angeles. As a result, no additional burden will be placed on the City of Los Angeles in its ability accommodate regional housing needs. A less-than-significant impact on housing supply would occur under Alternative 2 as with the proposed project.

It should further be considered that most staff positions (which are the majority of the additional jobs that would be added as a result of the 2002 LRDP) involve vocational opportunities that are generally found in most communities, and may not offer a unique enough opportunity to induce job-seekers to relocate to the area for the sole purpose of filling these positions. Due to the existing unemployment rate in Los Angeles County, which has averaged 7.5 percent over the last ten years (Annual Average Labor Force Data for Counties, State of California, Employment Development Department, 1992–2002), it is expected that qualified area residents will fill the vast majority of additional staff positions. Accordingly, it is anticipated that most of the new staff positions would be filled by persons already residing in the area, and would not create new demand for additional housing. The impact on population and housing would be less than significant and the same for this alternative as for the proposed project.

Public Services

Fire Protection

The City of Los Angeles Fire Department serves the site. The City of Los Angeles General Plan Framework EIR also concluded that fire protection services would be adequate to serve the City's population through 2010. Impacts on fire protection services under this alternative would be less than significant, the same as under the proposed project.

Police Services

The Los Angeles Police Department (LAPD) Pacific Area is responsible for providing police protection to the Playa Vista site. LAPD annually assesses staffing and equipment levels during its budgeting process and provides police officers, as needed, to accommodate expected increases in the City of Los Angeles population, which would include the satellite campus. The City of Los Angeles General Plan Framework EIR concluded that police service levels would be adequate to serve the City's population through 2010; therefore, LAPD assistance to the satellite campus is also expected to be adequate throughout the 2002 LRDP planning horizon. Impacts are anticipated to be less than significant. The UCPD would supply campus officers and CSOs to the satellite campus in the same staffing ratio as currently exists on campus; these officers and CSOs would be relocated from the main campus and would not result in additional staffing. Therefore, impacts on police services under this alternative would be the same as under the proposed project, or less than significant.

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Schools

Similarly, under this alternative, the demand for schools (as generated by the individuals that attend or are employed by the satellite campus) may be increased in the vicinity of Playa Vista. The Playa Vista First Phase Project EIR determined that sufficient capacity is available at Playa del Rey Elementary school to accommodate the students generated by development of that project's first phase (Subphase 1A). The development of all phases would require the addition of portable classrooms to the Playa del Rey school facility. If school enrollment were equally balanced among the six local elementary schools, the proposed phasing program would not result in an adverse or significant impact on school enrollment capacity. However, if enrollment for elementary school children was not balanced, a significant and unavoidable impact could occur. Sufficient capacity was identified to accommodate junior and senior high school students.

Development at the Playa Vista site under this alternative, therefore, could result in significant and unavoidable impacts on area schools. This impact is greater than the less-than-significant impact identified under the 2002 LRDP.

Recreation

Alternative 2 would increase the population in the Playa Vista area; however, since it would include provision of recreational facilities for students, faculty, and staff in a similar ratio as are currently provided on the main campus, it would not result in increased use of parks and recreational facilities off-campus such that substantial deterioration of the facility would occur or be accelerated. The 2002 LRDP EIR determined that less-than-significant impacts with regard to this impact would occur for the proposed project. This alternative would have substantially similar impacts on satellite campus recreational facilities as compared to the 2002 LRDP.

This alternative would include provision of recreational facilities to accommodate the faculty, students, and staff on the site. The impacts of construction of these recreational facilities have been analyzed in each specific issue area and need not be addressed further here.

In summary, Alternative 2 would have the same less-than-significant impact on recreation as compared to the less-than-significant impact anticipated to occur under the 2002 LRDP.

Transportation

The relocation of students, faculty, and staff to the off-site location under this alternative would not reduce the number of trips generated by these individuals, but rather relocate these trips. Traffic congestion in the Playa Vista area is less as compared to the Westwood area due to a less dense urban environment. Further, the traffic improvements required as conditions of approval of the Playa Vista development would also ensure that traffic impacts remain improved as compared to the Westwood area. The Playa Vista First Phase Project EIR indicated that 47 of the 48 significantly impacted intersections in the City of Los Angeles affected by the Playa Vista development would be mitigated; of these, 30 intersection impacts would be mitigated to levels of insignificance by the proposed mitigation; three intersections would be mitigated to a level of service D or better, which is considered acceptable levels of service by the LADOT; nine intersection impacts would be mitigated to insignificance by the Lincoln Boulevard Transit Enhancement Program; five intersection impacts would be mitigated to levels of insignificance by providing other improvements approved by LADOT. Similarly, with the implementation of identified mitigation measures, impacts at ten of the thirteen significantly impacted intersections within Culver City would be mitigated. The First Phase project of Playa Vista would increase traffic volumes on the I-405 Freeway, which is projected to be at LOS F with or without the Playa Vista First Phase Project.

During construction of this alternative, short-term generation of construction-related vehicle trips could temporarily impact traffic conditions along roadway segments and at individual intersections, and impair emergency access during the short term. However, because the area is primarily undeveloped, and much of the construction staging and internal access would occur on site, construction-related traffic impacts would be anticipated to be less than the proposed project. While construction impacts could remain significant and unavoidable, the degree of significance would be less than the proposed project.

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Development of this alternative could result in additional vehicular traffic volumes that may exceed established service levels on roadways designated by the Los Angeles Congestion Management Program, but operational traffic impacts are anticipate to be less than under the proposed project. In addition, this alternative would be designed in such a way as to avoid hazards due to design features or incompatibilities, nor impair emergency access in the long term. Construction activities could result in short-term vehicular hazards due to closure of traffic lanes or roadway segments, and impair emergency access during the short-term under this alternative. Incorporation of the same campus programs, practices, and procedures as outlined under the proposed project would reduce these impacts to a less-than-significant level. Development of this alternative would result in the same less-than-significant impacts as compared to the project.

Utilities and Service Systems

Impacts on utilities and service systems as a result in Alternative 2 would be comparable to the 2002 LRDP given that the projected development would be the same (1.71 million gsf). LADWP, who would serve the site, has made the necessary commitments (i.e., planning and financial) to adequately treat all water supplied to the City of Los Angeles through 2020 (Year 2000 Urban Water Management Plan) within existing and/or planned water treatment facilities. Implementation of this alternative would not require or result in the construction of new water treatment facilities or the expansion of existing facilities, and impacts would be less than significant. Projected water use would be substantially the same for the alternative site as if the relocated programs remained on the main campus. LADWP has

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identified that sufficient water supplies exist to adequately serve the 2002 LRDP, and this would be true on the alternative site as well.

Solid waste generation would be the same on the alternate site as under the proposed project, and impacts would be the same. As an entity created by the State Constitution, the UC is exempt from local regulations pertaining to solid waste. However, the California Integrated Waste Management Act of 1989 (AB 939) requires that local jurisdictions divert at least 50 percent of all solid waste generated by January 1, 2000. The UCLA campus has achieved a 52 percent diversion rate in 2001, and remains committed, through campus policy PP 4.14-3, to continue established implementation of waste reduction and minimization efforts. Therefore, implementation of the 2002 LRDP would be consistent with AB 939, and a less-than-significant impact would occur. Therefore, impacts on solid waste would be less than significant, the same as for the proposed project.

The campus would be required to comply with all applicable wastewater discharge requirements issued by the SWRCB and RWQCB. Therefore, development on the alternate site would not exceed applicable wastewater treatment requirements of the Regional Water Quality Control Board with respect to discharges to the sewer system or stormwater system. A less-than-significant impact would occur, as with the proposed project.

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Implementation of this alternative would not generate wastewater that would exceed the capacity of the HTP wastewater treatment system in conjunction with the provider's existing service commitments. The wastewater generated would be the same as under the proposed project. Therefore, the impact of this alternative on wastewater treatment capacity would be the same as for the proposed project, or less than significant.

With regard to energy use, because the alternative site would not be connected to the ESF/cogeneration facility and the chiller plant, less efficient use of electricity and natural gas would be anticipated to occur. Continued implementation of campus conservation measures would reduce this impact to a less-than-significant level. DWP has indicated that sufficient electricity supplies exist to serve the increase in development and population under the 2002 LRDP; therefore, it is assumed DWP could also serve the same development and population on a different site. Although sufficient supplies exist, because the satellite campus would not have the benefit of the cogeneration facility to reduce reliance on outside electricity sources, the net demand for electricity from the DWP would be greater than with the proposed project. Since supplies are adequate, this impact would he less than significant, but would be greater than the less-than-significant impact on electricity demand identified in the 2002 LRDP.

Similarly, the alternative site would demand an increased amount of natural gas from outside sources because it would not have the benefit of the cogeneration facility at the ESF, which decreases natural gas consumption on the main campus. Demand for natural gas as a result of the 2002 LRDP would not exceed available or planned supply, and it can be assumed there would be sufficient natural gas supply to serve Alternative 2, as this alternative calls for the same level of development and population increase as the proposed project. However, while this impact is less than significant, since less efficient use of natural gas would result with this alternative, the impact would be greater than the less-than-significant impact of the 2002 LRDP.

Development of this alternative would require extension of existing water, wastewater, electricity, and natural gas lines to connect to the trunk lines provided by the Playa Vista developer, as the site is currently undeveloped. Construction of these extensions would occur as part of construction of the project as a whole. Consequently, the associated construction-related traffic, air, and noise impacts would be significant and unavoidable, identical to the proposed project. It is assumed that the infrastructure extensions would occur consistent with City regulations and service provider protocols and this impact would be less than significant.

Relationship to Project Objectives

The development of an off-campus self-contained satellite campus would fail to meet several of the objectives set forth in the 2002 LRDP and would also create significant new obstacles to the maintenance and enhancement of the quality of University education. Despite the fact that the programs that would be candidates for relocation to the satellite campus would be discrete, self-contained academic units, such as the Law School, The Anderson Graduate School of Management, or other graduate programs, the interdisciplinary nature of many programs on campus establishes a framework that permits students the opportunities for specialization in a wide variety of academic disciplines. The physical proximity of many departments and facilities is of critical importance, and relocation to a satellite campus could compromise the academic objectives of these programs. In addition, a wide range of academic programs and organized research units are established in areas not accommodated within traditional academic departments. Proximity of facilities and academic office space is especially critical for interdisciplinary research programs, where faculty and research staff from various departments often interfaces and share ideas on research topics. The potential separation of academic and research functions could impose functional and operational constraints, and sites more proximate to the main campus would entail the least disruption to campus programs and activities.

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In addition, this alternative would result in greater impacts than under the proposed project in the issue areas of aesthetics, construction-related air quality, traffic, and noise, biological resources, cultural resources, geology, hydrology, land use and planning, public services (schools), and utilities and service systems.

Specifically, the following 2002 LRDP objectives would not be met:

- To the extent feasible, site new buildings in locations that offer programmatic advantages due to proximity to related academic disciplines.
- Create an intellectual milieu and shared ethic that fosters excellence and a sense of community on campus.
- Continue the infill development of the UCLA campus, which reduces vehicle miles traveled and energy consumption.
- Provide recreational facilities for students, faculty, and staff on campus.
- Develop on-campus housing to enhance the educational experience for students and continue the evolution of UCLA from a commuter to a residential campus.
- Accommodate a proportion of enrollment growth by utilizing existing campus facilities more intensively during the summer, thereby minimizing capacity impacts to student services, housing, parking, and traffic, and limiting population growth in the regular session when campus activity is highest.

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For these reasons, the development of future facilities on a site other than the main campus is undesirable and impractical. The general impacts of pursuing such an alternative on instructional and research program objectives, together with the potential for increased operational costs, weighs decisively against the establishment of a satellite campus.

6.3.3 Alternative 3—Regular Session Growth Only

Description

Alternative 3 assumes that all of the enrollment growth planned for UCLA would occur in the regular session (fall, winter, and spring quarters), and the summer headcount would remain at the same level as the summer of 2000, which does not include the significant summer enrollment growth that occurred in Summer 2001 as a result of State-funded incentives to support an increase in summer instruction.

Under this alternative, it is estimated that the student enrollment during the regular session would increase from 37,348 students to 37,761 students. This alternative assumes that the academic and staff employee headcount for the regular and summer session would remain the same as projected under the 2002 LRDP, since the instructional workload growth of 4,000 FTE students would be the same, the only difference being that all the instructional workload increase would occur during the regular session.

For the average weekday projections, the same relationship between regular session student enrollment and average weekday population would exist as for the 2002 LRDP (i.e., approximately 82 percent of enrolled students are on campus on an average weekday in the regular session). The difference between this alternative and the 2002 LRDP lies only with respect to when the increased population will be accommodated, rather than the level of development.

Comparison of Environmental Effects

As previously mentioned, the analysis of impacts is based upon one of two factors, either population or the campus built environment, depending upon the type of impact. Under this alternative, impacts are related to population levels, rather than development levels. Therefore, impacts related to aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, public services (fire protection), and utilities and service systems (water, solid waste, wastewater, electricity, and natural gas), which are analyzed on the basis of factors such as the proposed location of development, the proposed size (square footage) and type of development, acreage of ground disturbance, and known or expected presence of environmental resources (i.e., biological or cultural resources), would be the same as the impacts that would occur under the 2002 LRDP. These issue areas are not discussed in this alternatives analysis; instead, for a summary of impacts that would occur under this alternative, as compared to the 2002 LRDP, refer to Table 6-5 (Comparison of Impacts of Project Alternatives), which is provided at the end of this section.

Because environmental impacts that are analyzed on the basis of the campus population estimates may be different from the 2002 LRDP, given the increased enrollment growth during the regular session under this alternative, they are analyzed below. These issue areas include air quality, noise, population and housing, public services (police protection and school capacity), recreation, and transportation/traffic.

Air Quality

As with the 2002 LRDP, development under Alternative 3 would neither conflict with nor obstruct implementation of the 1997 AQMP and the 1999 Amendment for Ozone. This is because the 2002 LRDP and Alternative 3 do not provide for population, housing, or employment growth that exceeds forecasts from the Growth Management Chapter of the RCPG, which forms the basis of the land use and transportation control portions of the AQMP. In addition, the UCLA campus would continue to implement trip reduction programs under the 2002 LRDP or Alternative 3. These programs are consistent with the goals of the AQMP for reducing the emissions associated with new development.

Construction activities under Alternative 3 would be similar to those of the 2002 LRDP. As such, the net increase in emissions would exceed daily thresholds recommended by the SCAQMD and be considered significant. Following PP 4.2-2(a) through PP 4.2-2(c) ensures that construction-related air quality impacts are minimized. They would not, however, reduce the net increase in peak construction activities to below the thresholds of significance recommended by the SCAQMD. Therefore, this impact would be unavoidably significant under either the 2002 LRDP or Alternative 3.

The net increases in daily operational campus emissions above the future baseline associated with Alternative 3 during the regular session are presented in Table 6-5 (Future Without and Future With Alternative 3 Daily Operational Campus Emissions—Regular Session) along with the thresholds of significance recommended by the SCAQMD. As shown, the net increase in daily campus emissions associated with this alternative would not exceed the threshold of significance recommended by the SCAQMD. Therefore, implementation of Alternative 3 would not generate a net increase in daily operational campus emissions during the regular session that contributes substantially to an existing or projected air quality violation. The resulting emissions, would however, be slightly less than the amount generated under the 2002 LRDP.

Table 6-5 Future Without and Future With Alternative 3 Daily Operational Campus Emissions—Regular Session

	Emissions in Pounds per Day				
Development Scenario	*CO*	*VOC*	*NOx*	*SOx*	*PM_{10}*
Future Without Alternative 3	11,068.7	1,151.7	1,411.5	93.4	968.1
Future With Alternative 3	11,240.8	1,194.6	1,440.2	102.0	984.6
Net Increase in Future Daily Emissions	172.1	42.9	28.7	8.6	16.5
SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0
Significant Impact?	No	No	No	No	No

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7.

The net increase in daily operational campus emissions above the future baseline associated with Alternative 3 during the twelve-week summer session are presented in Table 6-6 (Future Without and Future With Alternative 3 Daily Operational Campus Emissions—Summer Session) along with the thresholds of significance recommended by the SCAQMD. As shown, the net increase in daily campus emissions associated with this alternative would not exceed the threshold of significance recommended by the SCAQMD. Therefore, implementation of Alternative 3 would not generate a net increase in daily operational campus emissions during the summer session that contributes substantially to an existing or projected air quality violation. Because the 2002 LRDP would generate a net increase in daily operational emissions that exceed thresholds of significance recommended by the SCAQMD, implementation of Alternative 3 would reduce this potential impact to a less-than-significant level.

Table 6-6 Future Without and Future With Alternative 3 Daily Operational Campus Emissions—Summer Session

	Emissions in Pounds per Day				
Development Scenario	CO	VOC	NOx	SOx	PM_{10}
Future Without Alternative 3	11,543.4	1,053.4	1,498.5	93.3	861.0
Future With Alternative 3	11,878.8	1,086.1	1,547.5	93.4	883.9
Net Increase in Future Daily Emissions	335.7	32.7	49.0	0.1	22.9
SCAQMD Thresholds	550.0	55.0	55.0	150.0	150.0
Significant Impact?	No	No	No	No	No

Source: EIP Associates, 2002. Calculation data and results are provided in Appendix 7.

Implementation of Alternative 3 would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard. This is because the campus will continue to implement the existing TDM program, energy conservation efforts, and Best Available Control Technology (BACT) programs that reduce the emissions that would otherwise be generated by the campus by substantially more than 1 percent on an annual basis. This meets the AQMP performance standard for annual emissions reductions. The UCLA campus would continue to implement these programs under the 2002 LRDP or Alternative 3. Therefore, the impacts under Alternative 3 would be the same as under the 2002 LRDP.

Implementation of the 2002 LRDP would not expose sensitive receptors near roadway intersections to substantial pollutant concentrations. Alternative 3 would generate about the same amount of vehicular traffic to and from the campus than under the 2002 LRDP during the regular session when localized concentrations of CO are highest. The resulting impact would remain less than significant under either development scenario.

Implementation of the 2002 LRDP would not expose sensitive receptors on or off campus to substantial pollutant concentrations due to campus-generated toxic air emissions. Because the identical level of development would occur under Alternative 3, along with the same types of campus land uses and operations, there would be no change in the types and amounts of toxic air contaminants generated by the campus. This impact would remain less than significant under the 2002 LRDP or Alternative 3.

The 2002 LRDP and Alternative 3 would not create objectionable odors affecting a substantial number of people. The types and amount of construction equipment used at the campus that might generate odors would be the same under either development scenario. Potential operational airborne odors could result from cooking activities associated with the new student housing units would be similar under either scenario.

Noise and Vibration

Under Alternative 3, the proposed new student housing units would be located in the same location as proposed under the 2002 LRDP and NHIP. As such, neither development scenario would expose new on-campus student residential uses to noise levels in excess of the State's 45 dBA CNEL interior noise standard.

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Construction activities under Alternative 3 or the 2002 LRDP that occur in close proximity to existing buildings at the campus could generate and expose persons on-campus to excessive groundborne vibration or groundborne noise levels, while off-campus sensitive uses would not be significantly impacted. When construction activities are not occurring at the campus, background operational vibration levels would be expected to be very low and not noticeable. This would occur under the 2002 LRDP or Alternative 3.

Alternative 3 would generate a similar amount of daily vehicular traffic as the 2002 LRDP during the regular session and less vehicular traffic during the summer session. Therefore, roadway noise impacts during the regular and summer sessions would be less than significant under either development scenario.

A similar amount of new stationary sources of noise would be added to the campus under both the 2002 LRDP and Alternative 3. This equipment would be shielded and appropriate noise muffling devices installed to reduce noise levels that affect nearby on- and/or off-campus noise-sensitive uses. As such, the noise levels generated by this new equipment would not cause a substantial permanent on- or off-campus increase in ambient noise levels under either development scenario.

Implementation of the 2002 LRDP would not expose additional students, faculty, and visitors within the UCLA campus to excessive noise levels generated by helicopter operations. Although the number of students, faculty, and visitors at the campus would increase during the regular session under Alternative 3, these people would be exposed to helicopter noise for less than 30 seconds. There would be a slight reduction in the number of students, faculty, and visitors exposed to helicopter noise levels at the campus during the summer session under Alternative 3. Therefore, this impact would continue to be less than significant under this alternative.

Population and Housing

As with the proposed project, this alternative would not displace people or housing, necessitating the construction of replacement housing. There is no impact, identical to the no impact for the proposed project.

Implementation of this alternative would accommodate the enrollment increase during the regular session only. The increase projected for the summer session under the 2002 LRDP would occur in the regular session, in addition to the increase projected for the regular session. Academic staff is generally employed year-round and would not be expected to substantially increase to accommodate the additional enrollment in the regular session. An increase in other staff, if any, would be anticipated to be minimal during the regular session under this alternative. Compared to the 2002 LRDP, the average daily population would be greater in the regular session and smaller during the summer session. This alternative would accommodate the anticipated enrollment growth, and the accompanying population growth, as directed by the UC in response to the State Legislature within the remaining approved physical development capacity of 1.71 million gsf previously analyzed in the 1990 LRDP Final EIR. Alternative 3 does not propose any new physical development beyond that already approved in the 1990 LRDP. In addition, the growth in UCLA on-campus population is well below regional and local growth projections. Considering all of these factors, the campus population growth as a result of this alternative has been fully considered and evaluated by local and regional plans and policies developed by the City of Los Angeles and SCAG, and this alternative would accommodate, rather than induce, population growth. As with the 2002 LRDP, a less-than-significant population impact would occur.

The 2001 Student Housing Master Plan seeks to accommodate the housing needs of approximately 58 percent of student enrollment, thereby continuing the evolution of UCLA from a commuter to a residential campus. With this alternative, there would be a greater demand for student housing during the regular session than under the 2002 LRDP to accommodate the greater student population. This would result in an unmet demand for student housing during the regular session. In contrast, there would be less demand for student housing during the summer session, which demand is already at low levels. This alternative includes a specific student housing project to construct up to 2,000 beds of undergraduate student housing in the Northwest zone, which could accommodate a portion of the growth in student population during the regular session. However, this housing would not meet all of

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the demand for additional housing generated by the population growth and campus housing would continue to be under-utilized during the summer session. This would be a potentially significant impact with no feasible mitigation available. Compared to the less-than-significant impacts on student housing demand of the 2002 LRDP, Alternative 3 would result in greater impacts than the 2002 LRDP.

Additional staff that may be required during the regular session, if any, to accommodate the greater increase in campus population during the regular session, would be minimal. Since the indirect jobs created by implementation of the 2002 LRDP would increase by less than 1 percent, which is considered less than significant, the negligible, if any, increase in staff during the regular session over that contemplated in the 2002 LRDP would remain less than significant. It is anticipated that, like the 2002 LRDP, most of the new staff positions would be filled by persons already residing in the area, and would not create new demand for additional off-campus housing. Implementation of this alternative, similar to the 2002 LRDP, would not place an additional burden on the ability of the City of Los Angeles to satisfy its share of regional housing needs during the planning horizon, and thus will have a less-than-significant impact on housing supply, substantially similar to the less-than-significant impact identified for the 2002 LRDP. Since the growth attributable to the LRDP and this alternative is included in the SCAG forecasts, Alternative 3 would not result in employment growth in excess of SCAG projections and a less-than-significant impact would occur, identical to the less-than-significant impact for the 2002 LRDP.

Overall, Alternative 3 would have the same less-than-significant impacts on population and housing as compared to the 2002 LRDP, but would be greater with regard to student housing on campus.

Public Services

Police Protection

Implementation of Alternative 3 would result in a slightly greater average weekday population during the regular session than envisioned under the 2002 LRDP. Current staffing levels are considered to provide adequate police protection services to campus in 2002 and would adequately serve the campus throughout the planning horizon (according to University-wide officer-to-population ratios) since the campus would continue to monitor police staffing levels to ensure that adequate police protection continues to be provided on an ongoing basis as individual development projects are proposed, and on an annual basis as part of the campus budgeting process.

As with the 2002 LRDP, all campus buildings will continue to feature direct fire alarm connections, as required by PP 4.11-1, which provides the UCPD with location information, thereby improving police response times to campus emergency situations. Re-assessing police staffing and equipment needs during implementation of this alternative, as required by PP 4.11-2(a), would also ensure that police protection services and facilities continue to adequately serve the increased campus population and the increased level of development. In addition, the UCLA Police Department will continue its current practice of cooperating with the Los Angeles Police Department, Santa Monica Police Department, and the California Highway Patrol to help ensure the adequacy of police protection services for the campus.

Thus, since development levels would be the same under this alternative and adequacy of police staffing levels is based on total average weekday population throughout the academic year, impacts to police services would be less than significant under this alternative, the same as the less-than-significant impact for the 2002 LRDP.

Schools

The increase in academic and other staffing during the regular session required under this alternative would not be substantially greater than the increase proposed under the 2002 LRDP, since most UCLA employees work year-round. As with the 2002 LRDP, assuming that the additional academic and staff employees associated with the 2002 LRDP represent separate households and their residences are distributed in the same manner as existing employees, most households will be concentrated within the boundaries of LAUSD and many of these will be on the Westside of Los Angeles. Since it is assumed that only a slight increase in staffing levels would be required during the regular session to accommodate the greater increase in student enrollment under this alternative, it is not anticipated that the level of significance of the impact on schools would differ substantially from the less-than-significant impact identified under the 2002 LRDP. The household estimates in the LRDP analysis were assumed not to be all net new households, since, in fact, the staff employees, which constitute most of the 2002 LRDP employment growth, are probably already located in the region. This would be true for Alternative 3 as well. Alternative 3, similar to the 2002 LRDP, will result in a relatively small increase in the number of students throughout the LAUSD as a whole, with the largest area of student growth concentrated in West Los Angeles, where school capacity is adequate to serve this increase in population. Alternative 3, identical to the 2002 LRDP, will direct a much smaller percentage of students to each of the areas of the LAUSD that are currently above enrollment capacity, and the LAUSD will direct extensive resources toward reducing over-enrollment in these areas. Therefore, the incremental increase in demand associated with additional faculty and staff as a result of Alternative 3 could be accommodated by the LAUSD, and a less-than-significant impact would occur. This is the same as the less-than-significant impact identified for the 2002 LRDP.

In summary, the less-than-significant impacts to public service for Alternative 3 would be the same as the less-than-significant impacts identified under the 2002 LRDP.

Recreation

The projected increase in the regular session average weekday campus population through 2010–11 (including students, faculty, staff, visitors, and construction personnel) could result in a related increase in the demand for parks or other recreational facilities both on and off campus. Because the increase in weekday population during the regular session would be greater under this alternative than with the 2002 LRDP, the related increase in demand for recreational facilities would also be greater. The City of Los Angeles provides parkland in a ratio of 1.0 acre for each 1,000 residents, and under the 2002 LRDP, UCLA provides recreational facilities in the ratio of 0.89 acres per 1,000 campus population. The increase in regular session enrollment under Alternative 3 would increase this ratio, but it would still remain below the 1.0 ratio in effect for the City of Los Angeles. In addition, the campus has provided significant capital improvements to recreational facilities on campus, the recreational facilities planned as part of the Southwest Campus Housing and Parking Project, and this alternative includes recreational facilities as part of the NHIP. Taking into account these capital improvements and the proposed new recreational facilities, this alternative would provide adequate recreational facilities on campus to serve the increased population, and off-campus recreational facilities in the surrounding area would continue to be utilized. Alternative 3 would not result in the physical deterioration of existing on-campus facilities, since the campus would continue maintenance and operation of these facilities.

As more than adequate recreational facilities exist or are planned to serve the increased population under this alternative, this impact is considered less-than-significant due to the marginal increase in population, which would be the same as the less-than-significant impact for the 2002 LRDP.

Transportation/Traffic

Under this alternative, the student enrollment increase would occur entirely during the regular session when all of the campus parking spaces are fully utilized. Since no additional parking spaces would be constructed, additional traffic impacts would remain approximately the same as under the 2002 LRDP. However, due to increased employment during the regular session when compared to the proposed project, students would be displaced from about 500 parking spaces to accommodate the employees. Since employees have greater peak hour generation than students, total regular session trip generation and impacts would be slightly greater. In addition, parking impacts would be greater in the regular session than under the 2002 LRDP. Specifically, students would compete for fewer parking spaces.

Conversely, in the summer, there will continue to be unsold parking spaces available, and the lowered parking demand would also result in less traffic generation and fewer traffic impacts. The greatest impact under this alternative would be a reduced level of parking available to students, a reduction to 0.236 permits for Other Commuter Students from 0.290 for the 2002 LRDP. During the summer session, traffic impacts would be less than the proposed project but would still be significant. Impacts during the summer session would be a result of the NHIP being constructed with resulting increases in conference attendance and employment during the summer. Four intersections could be significantly impacted by traffic during the summer session. For a more detailed discussion, see Volume II of this DEIR. Similar to the proposed project, significant and unavoidable impacts would occur at four intersections under this alternative. Additionally, parking impacts under this alternative would be greater during the regular session when compared to the project's less-than-significant impact.

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During construction for this alternative, generation of construction-related vehicle trips could temporarily impact traffic conditions along roadway segments and at individual intersections, and impair emergency access during the short term. Construction impacts would remain significant and unavoidable, as with the proposed project.

Development under this alternative would result in additional vehicular traffic volumes that may exceed established service levels on roadways designated by the Los Angeles Congestion Management Program. In addition, this alternative would not result in hazards due to design features or incompatibilities, nor impair emergency access in the long term. Construction activities could result in vehicular hazards due to closure of traffic lanes or roadway segments, and impair emergency access during the short-term under this alternative. Development of this alternative would result in the same less-than-significant impacts compared to the proposed project.

Overall, implementation of this alternative would result in greater (operational and parking) impacts during the regular session, and lesser impacts during summer, when compared to the proposed project. However, traffic and parking impacts would still be significant and unavoidable as for the proposed project.

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Relationship to Project Objectives

Alternative 3 would allow the same level of development as envisioned under the 2002 LRDP and would accommodate the projected increase in 4,000 FTE students. This alternative would be consistent with LRDP objectives to maintain the campus parking and vehicle trip caps. However, this alternative would not achieve the project objective that strives to accommodate a significant portion or the enrollment by utilizing existing campus facilities more intensively during the summer and limiting the headcount growth in the regular session to minimize capacity impacts on student services, housing, parking, and traffic (when campus activity is higher). In addition, this alternative would limit the campus ability to achieve goals of the Student Housing Master Plan, which include housing 58 percent of student enrollment and continuing the evolution of UCLA from a commuter to a residential campus, by creating an additional demand for an already limited supply of on-campus housing. This alternative, through its inability to utilize existing campus facilities more intensively during the summer, would inhibit achievement of the academic objectives outlined in the 2002 LRDP. Increased enrollment during the regular session would make it more difficult for the campus to develop an academic, administrative, and physical environment that supports outstanding research and creative activity, for example, or ensuring student access while continuing to enhance the quality of the academic program. This alternative would result in impediments to achieving the academic, physical, and operational objectives set forth in the 2002 LRDP.

6.3.4 Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. This would ideally be the alternative that results in fewer (or no) significant and unavoidable impacts. CEQA Guidelines Section 15126(d)(2) states that if the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives.

For this project, the No Project alternative (Alternative 1) would reduce all project impacts, but significant and unavoidable impacts would remain. While Alternative 1 would be considered the environmentally superior alternative, a majority of the project objectives would not be achieved. Of the other alternatives considered, Alternative 3 reduces the significant and unavoidable operational air quality impact during the twelve-week summer session to a less-than-significant level, but results in an increase in the severity of the significant and unavoidable operational traffic and parking impacts during the regular session. Alternative 3 also results in an increase in student housing demand during the regular session compared to the proposed project. However, compared to Alternative 2 overall, Alternative 3 would be considered the environmentally superior alternative.

Refer to Volume 3, Chapter II (Text Changes)

6.3.5 Comparison of Alternatives

Table 6-7 (Comparison of Alternatives to the Proposed Project) presents a summary comparison of post-mitigation project impacts with those of each alternative, assuming that feasible mitigation measures are also implemented for each alternative. This table presents the level of significance for impacts resulting from each project alternative, by issue area, as compared to the impacts of the 2002 LRDP (e.g., "LS (greater)" indicates that although the level of significance of the project alternative is "less than significant," the impacts are greater than the proposed project).

Table 6-7 Comparison of Alternatives to the Proposed Project

Impact Area	*Alternative 1 No Project/ Continued Implementation of the 1990 LRDP Through 2010–11*	*Alternative 2 Off-Site Alternative*	*Alternative 3 Regular Session Growth Only*
Aesthetics	LS (Same)	LS (Greater)	LS (Same)
Air Quality—Construction	SU (Same)	LS (Greater)	SU (Same)
Air Quality—Operation	SU (Less)	SU (Same)	SU (Less)
Biological Resources	LS (Same)	LS (Greater)	LS (Same)
Cultural Resources	LS (Same)	LS (Greater)	LS (Same)
Geology and Soils	LS (Same)	LS (Greater)	LS (Same)
Hazards and Hazardous Materials	LS (Same)	LS (Same)	LS (Same)
Hydrology and Water Quality	LS (Same)	LS (Greater)	LS (Same)
Land Use and Planning	LS (Same)	LS (Greater)	LS (Same)
Noise—Construction	SU (Same)	SU (Greater)	SU (Same)
Noise—Operation	LS (Less)	LS (Same)	LS (Same)
Population and Housing	LS (Same)	LS (Same)	LS (Greater)
Public Services	LS (Less)	LS (Greater)	LS (Same)
Recreation	LS (Less)	LS (Same)	LS (Same)
Transportation—Construction	SU (Same)	SU (Less)	SU (Same)
Transportation—Operation	SU (Less)	SU (Less)	SU (Greater)
Utilities and Service Systems	LS (Same)	LS (Greater)	LS (Same)
Relationship to objectives	Less	Less	Less

LS = Less Than Significant
PS = Potentially Significant
S = Significant
SU = Significant and Unavoidable

Refer to Volume 3, Chapter II (Text Changes)

Chapter 7 REPORT PREPARERS/ORGANIZATIONS AND PERSONS CONSULTED

7.1 REPORT PREPARERS

Lead Agency

University of California, Los Angeles

1060 Veterans Avenue
Los Angeles, CA 90095-1365

University of California

Office of the President
1111 Franklin Street
Oakland, CA 94067-5200

EIR Preparers

EIP Associates

12301 Wilshire Boulevard, Suite 430
Los Angeles, CA 90025

Traffic Consultants

Crain & Associates, Inc.
2007 Sawtelle Boulevard, Suite 4
Los Angeles, CA 90025

Population, Employment, and Housing Consultants

Hamilton, Rabinowitz, & Alschuler (HRA), Inc.
6033 W. Century Boulevard, Suite 890
Los Angeles, CA 90045

Toxic Air Contaminant Consultants

URS Corporation
2020 East First Street, Suite 400
Santa Ana, CA 92705

Public Meeting Transcription (Scoping Meeting)

Newlander & Newlander
1138 Wilshire Boulevard, Suite 200
Los Angeles, CA 90017

Sanitary Sewer Study

RBF Consulting
14725 Alton Parkway
Irvine, CA 92618-2027

7.2 ORGANIZATIONS AND PERSONS CONTACTED

Bass, R. — City of Los Angeles Bureau of Sanitation

Baumgardner, M. — Ornithologist/Wildlife Biologist, EIP Associates

Bautista, A. — City of Los Angeles Department of Water and Power

Bohon, J. — California Department of Toxic Substances Control

Brodt, G. — Los Angeles Department of Water and Power

Brueggemann, D. — UCLA Government and Community Relations, Executive Director, Local Relations

Campbell, E. — City of Los Angeles Department of Public Works, Bureau of Sanitation

Carberry, A. — California Department of Toxic Substances Control

Carlson, Capt. — LAFD Operation Control Division

Chang, G. — City of Los Angeles Planning Department, Subdivision Unit Counter Supervisor

Chow, E. — Los Angeles Department of Transportation

Coleman, W. — UCLA Capital Programs, Campus Capital Planning, Principal Administrative Analyst

Combs, J. — City of Los Angeles Department of Recreation and Parks

Cox, R. — UCLA Office of Analysis and Information Management, Manager

Davies, G. — UCLA Office of Academic Planning and Budget, Assistant Vice Chancellor

Deluca, M. — UCLA Cultural and Recreational Affairs, Director

Dowling, G. — UCLA Environment, Health and Safety, Senior Administrative Analyst

Edwards, T. — Information and Communications Services Bureau, Los Angeles Police Department

Eldridge, J. — FEMA Region IX Branch Chief

Fisher, M. — UCLA Capital Programs, Campus Architect

Foraker, M. — UCLA Housing and Hospitality Services, Director

Fortier, R. — UCLA Transportation Services, Parking and Business Management, Associate Director

Fortune, S. — City of Los Angeles Department of Public Works, Bureau of Sanitation

Foster, B. — United States Department of Conservation, Division of Mines and Geology, Los Angeles

Frazen, R. — Los Angeles County Sanitation Districts

Fu, W. — City of Los Angeles Department of Public Works, Bureau of Sanitation

Gerecky, H. — Consolidated Waste Services

Greenstein, N. — University of California Police Department (UCLA), Director, Community Service

Hofherr, L. — UCLA Environment, Health and Safety, Lab and Biosafety Officer

Johnson, D. — UCLA Facilities Management, Director, Energy Services and Utilities

Kantor, M. — City of Los Angeles Department of Public Works, Bureau of Engineering

Kaufer, B. — Grubb & Ellis Commercial Real Estate

Kaufman, L. — UCLA Capital Programs, Campus, Senior Administrative Analyst
LaVanne, T. — UCLA Capital Programs, Campus, Director, Construction Services
Lelah, T. — UCLA Capital Programs, Campus Environmental Planning, Assistant Director
Lopez, L. — California Department of Toxic Substance Control
Lutomirski, P. — UCLA Chancellor's Office, Associate Vice Chancellor
MacDougall, J. — UCLA Capital Programs, Director of Engineering
Mackowski, M. — Upper Los Angeles River Area Watermaster
Marciano, A. — UCLA Housing and Hospitality Services, Associate Director
Menton, P. — UCLA Transportation Services, Communications, Compliance and Marketing, Associate Director
Mundine, J. — City of Los Angeles Department of Public Works, Bureau of Sanitation
Murakami, J. — UCLA Department of Atmospheric Sciences, Administrative Specialist
Ott, D. — UCLA Environment, Health and Safety, Hazardous Materials Manager
Perez, R. — Los Angeles Unified School District Master Planning & Demographics
Powazek, J. — UCLA Facilities Management, Assistant Vice Chancellor
Ross, K. — UCLA Police Department, Assistant Chief of Police
Sebolsky, S. — UCLA Capital Programs, Campus, Senior Engineer
Spataru, A. — UCLA Capital Programs, Health Sciences, Director, Administration and Controls
Stocki, M. — UCLA Transportation Services, Director
Streaty, G. — UCLA Parking Services, Manager
Unidentified — Los Angeles City Fire Department
Unidentified — South-Central Coastal Information Center
Ursitti, F. — Los Angeles County Sanitation Districts, Solid Waste Management Department
Verhulst, C. — UCLA Office of Analysis and Information Management, Principal Administrative Analyst
West, C. — UCLA Office of Analysis and Information Management, Director
Wheeler, D. — UCLA Environment, Health and Safety, Radiation Safety Officer
Wood, R. — State of California, Native American Heritage Commission, Environmental Specialist III
Zacuto, C. — UCLA Capital Programs, Campus, Principal Environmental Planner
Zaldra, E. — City of Los Angeles Department of Public Works

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