2002 Long Range Development Plan Final Environmental Impact Report

State Clearinghouse Number 2002031115

University of California, Los Angeles

February 2003

VOLUME 1A

2002 Long Range Development Plan
Draft EIR Technical Appendices

Volume 1a

University of California, Los Angeles

2002 Long Range Development Plan

Appendices to the Draft Environmental Impact Report

SCH No. 2002031115

Prepared for:
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Santa Ana, CA 92705

FEBRUARY 2003

CONTENTS

Volume 1a

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.

Appendix 1 June 13, 2001, NOP and Comment Letters

Federal Express

June 13, 2001

State of California
Office of Planning and Research
1400 Tenth Street, Room 222
Sacramento, CA 95814

NOTICE OF PREPARATION

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

Project Title: Long Range Development Plan Update

Project Number: 948365

Lead Agency: University of California

Project Location: University of California, Los Angeles campus

County: Los Angeles

Project Description: The University of California, Los Angeles proposes to update the campus' Long Range Development Plan, previously adopted by The Regents of the University of California in November 1990. The Long Range Development Plan Update ("LRDP Update" or "Plan Update") will be undertaken to address anticipated growth in student enrollment.

The State of California Department of Finance and the California Public Postsecondary Education Commission anticipate substantial population growth in the State of California over the next decade. The University proposes to accommodate this increase in order to meet the State's needs and sustain its commitment to ensure access to public higher education under the Master Plan for Higher Education in California. It is anticipated that UCLA could experience an increase in enrollment of approximately 4,000 full time equivalent students by the year 2010. This potential increase would exceed the student enrollment assumptions in the adopted LRDP. Accordingly, UCLA will update the LRDP and prepare a Subsequent Environmental Impact Report in accordance with Section 21080.09 of the California Environmental Quality Act ("the LRDP SEIR").

The LRDP SEIR will incorporate relevant information and analyses from the Final EIR on the LRDP (SCH#89072618), certified by The Regents of the University of California in November, 1990 ("1990 LRDP FEIR"). The 1990 LRDP FEIR previously analyzed the environmental consequences of a proposed 3.71 million square feet of new development between 1990 and 2005. The LRDP SEIR will evaluate the anticipated enrollment increase and the completion, by approximately 2010, of the previously analyzed development program, of which approximately 1.9 million gross square feet remains. Furthermore, the LRDP SEIR will incorporate the existing LRDP mitigation measures as appropriate, including the limits on the campus' overall vehicular trip generation. By so doing, the LRDP Update will extend the efficacy of the 1990 LRDP from the original 2005 horizon year to 2010 by maintaining the overall development square footage and trip generation limits of the Plan while accommodating an increased level of enrollment growth.

The LRDP SEIR will consider the potential environmental effects of the development of approximately 1.9 million square feet of space for academic, research, housing and other uses on campus. In addition, the LRDP SEIR will serve as a program EIR for the consideration of subsequent actions consistent with the LRDP Update. As part of the environmental analysis for the LRDP Update, the University will evaluate all of the mitigation measures identified in the 1990 LRDP FEIR to determine whether new or modified mitigation measures are necessary to reduce the potential significant impacts of campus development through 2010.

In compliance with the State and University of California guidelines for implementation of the California Environmental Quality Act, this Notice of Preparation is hereby sent to inform you that the University of California, Los Angeles is preparing a Draft Subsequent Environmental Impact Report on the above-named project. Potential environmental effects of the proposed LRDP Update for which detailed analyses will be conducted include: aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation and traffic, utilities and service systems. Elaboration of the potential environmental issues to be considered in each area are summarized in an Attachment to this NOP. The Draft LRDP SEIR will also include analysis of project alternatives and cumulative effects.

As Lead Agency we need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this Notice. A public information and EIR scoping meeting will be scheduled at UCLA in the near future and will be advertised in local newspapers and by direct mailing to notify interested individuals and agencies. Please designate a contact person in your agency and send your response to me at the address below.

Sincerely,

Tova Lelah

Assistant Director
Environmental Planning
UCLA Capital Programs
1060 Veteran Avenue
Los Angeles, CA 90095-1365
(310) 206-5482

Attachment 1: Potential Environmental Issues
Attachment 2: Document Transmittal Form
Attachment 3: Regional and campus location maps

cc:

General Manager Frankie Bannerjee, Los Angeles Department of Transportation
Mr. Stephen Buswell, California Department of Transportation
Mr. Dennis Dickerson, California Regional Water Quality Control Board
Ms. Viviane Doche, Southern California Association of Governments
Councilmember Michael Feuer, 5th District
Ms. Kathryn Higgins, SCAQMD
Honorable Paul Koretz, State Assembly, 42nd District
Honorable Sheila James Kuehl, State Senate, 23rd District
Councilmember Cindy Miscikowski, 11th District
Superintendent Roy Romer, Los Angeles Unified School District
Honorable Henry Waxman, U.S. Congress, California, 29th District
Honorable Zev Yaroslavsky, County Supervisor, 3rd District
State of California, Department of Fish and Game

City Planning Departments

Community Planning and Development, City of Santa Monica
Planning Department, City of Los Angeles
Planning Department, City of Beverly Hills
Planning Department, Culver City

County Agencies

County of Los Angeles, Regional Planning, Environmental Section
Los Angeles County Clerk

University of California

Assistant Vice Chancellor Max Benavidez
Administrative Vice Chancellor Peter W. Blackman
Assistant Vice President Michael Bocchicchio
Executive Director Diana Brueggemann
Assistant Vice Chancellor Glyn Davies
Vice Chancellor Winston C. Doby
Campus Architect Marc Fisher
Vice President and General Counsel James Holst
Executive Vice Chancellor Wyatt R. Hume
Director Cynthia Ingham Bachman
Associate Vice Chancellor Paula Lutomirski
Vice Chancellor Joseph D. Mandel
Associate Vice Chancellor Sam Morabito
Assistant Vice Chancellor Michael O'Donnell
Senior Planner Mary O'Keefe
Assistant Vice Chancellor Sue Santon
Director Mark Stocki
University Counsel Alan Waltner
Director Jack Zimmermann
UCLA Academic Senate, Council on Planning and Budget
President, Graduate Students Association
President, Undergraduate Student's Association Council

Local Associations and Individuals

Mr. Richard Agay, Westside Community Planning Council
Ms. Sandy Brown, The Holmby-Westwood Property Owners Association, Inc.
Ms. Elaine Gerdau, Bel-Air Association
Ms. Laura Lake, Friends of Westwood
Ms. Mary Leslie, Interim President, Los Angeles Business Council
Travis Longcore, Ph.D., The Urban Wildlands Group
Ms. Carole Magnuson
Mr. Mike Metcalf, Save Westwood Village
Alvin Milder, Esq., UCLA Watch
Mrs. Harriet Miller, Westwood Hills Property Owners Association
Mr. Robert Ringler, President, Residents of Beverly Glen, Inc.
Ms. Shelley Taylor, North Village Association
Mr. Philip Thomas, CEO, V.A. of Greater Los Angeles Healthcare System
Mr. Stephen Twining, President
    Roscomare Valley & Hillside Homeowners Association
Executive Director Bob Walsh, Westwood Community Alliance

UCLA Long Range Development Plan Update
Notice of Preparation Attachment #1
Potential Environmental Issues

Aesthetics
Potential effects on scenic resources and campus view corridors
Potential alteration in visual characteristics
Potential changes in sources of light or glare

Agricultural Resources
Not applicable on the UCLA campus and vicinity

Air quality
Consistency with adopted air quality plans
Long-term operational emissions from mobile and stationary sources
Short-term construction emissions
Potential air quality effects to sensitive receptors on and off campus

Biological resources
Removal and replacement of specimen trees and landscaping
Potential effects on potential migratory bird habitat

Cultural Resources
Potential effects to the historic and architectural qualities of potentially historic campus buildings
Potential effects on archaeologic or paleolithic resources during excavation

Geology and Soils
Seismic considerations in the siting and design of future development
Suitability of soils for future development
Extent of grading and export of earth materials

Hazards and Hazardous Materials
Use, transport and disposal of hazardous materials from research and patient care activities
Potential toxic emissions or wastes from operational and construction activities
Potential risks to people or structures

Hydrology and Water Quality
Potential change in amount and quality of storm water runoff and effect on drainage systems
Potential alteration of drainage patterns
Consistency with adopted water quality standards or waste discharge requirements

Land Use and Planning
Compatibility with adjacent land uses on and off campus
Intensification of land use in the campus housing and core zone

Consistency with adopted LRDP planning principles

Mineral Resources
Not applicable on the UCLA campus

Noise
Potential for long term increases in ambient noise
Short-term construction related noise and vibration

Population and Housing
Impact on campus population, including students, faculty, staff and visitors
Potential impact on housing demand, on and off campus

Public Services
Potential impact of increased population on police and fire protection services
Potential impact of increased population on demand for schools, parks and other public services

Recreation
Potential impact of increased demand for on and off campus recreational facilities

Transportation and Traffic
Short-term construction effects on access, parking and circulation
Long-term operational effects on access, parking and circulation
Impacts from vehicle trips on local intersections and the regional highway network
Consistency with adopted congestion management plans
Potential effects on the demand for parking
Potential effects on the provision of transportation demand management alternatives

Utilities and Service Systems
Potential effects on utility conveyance systems including: water, wastewater and natural gas
Adequacy of electrical, steam and chilled water capacity of the Campus Energy Systems Facility
Consistency with adopted regulations related to solid waste generation

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse

Gray Davis
GOVERNOR

Steve Nissen
DIRECTOR

Notice of Preparation

June 13, 2001

To: Reviewing Agencies

Re: UCLA Long Range Development Plan Update
SCH# 1989072618

Attached for your review and comment is the Notice of Preparation (NOP) for the UCLA Long Range Development Plan Update draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Tova Lelah
Regents of the University of California
1060 Veteran Avenue, CPB 3rd Floor
Los Angeles, CA 90095

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

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

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
916-445-0613 FAX 916-323-3018 WWW.OPR.CA.GOV/CLEARINGHOUSE.HTML

Document Details Report
State Clearinghouse Data Base

SCH# 1989072618
Project Title UCLA Long Range Development Plan Update
Lead Agency University of California, Regents of the

Type **NOP** Notice of Preparation

Description The University of California, Los Angeles proposes to update the campus' Long Range Development Plan, previously adopted by the Regents of the University of California in November 1990. The Long Range Development Plan Update ("LRDP Update" or "Plan Update") will be undertaken to address anticipated growth in student enrollment.

Lead Agency Contact

Name Tova Lelah
Agency Regents of the University of California
Phone 310/206-5482 **Fax**
email
Address 1060 Veteran Avenue, CPB 3rd Floor
City Los Angeles **State** CA **Zip** 90095

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets Westwood Boulevard/LeConte Avenue
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways I-405
Airports
Railways
Waterways
Schools
Land Use Campus

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Drainage/Absorption; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Growth Inducing; Landuse; Cumulative Effects

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Reviewing Agencies Resources Agency; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Health Services; Department of Fish and Game, Region 5; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; Caltrans, District 7; Department of Housing and Community Development; California Highway Patrol; Caltrans, Division of Transportation Planning; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 4

Date Received 06/13/2001 **Start of Review** 06/13/2001 **End of Review** 07/12/2001

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

NOP Distribution List

County: Los Angeles

SCH# 1989072618

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Bill Curry
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [x] **Dept. of Conservation**
  Ken Trott
- [ ] **Dept. of Forestry & Fire Protection**
  Allen Robertson
- [x] **Office of Historic Preservation**
  Hans Kreutzberg
- [x] **Dept of Parks & Recreation**
  Resource Mgmt. Division
- [ ] **Reclamation Board**
  Pam Bruner
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [ ] **Resources Agency**
  Nadell Gayou
  Dept. of Water Resources

Health & Welfare

- [x] **Health & Welfare**
  Wayne Hubbard
  Dept. of Health/Drinking Water

Food & Agriculture

- [ ] **Food & Agriculture**
  Tad Bell
  Dept. of Food and Agriculture

Fish and Game

- [ ] **Dept. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Dept. of Fish & Game**
  Donald Koch
  Region 1
- [ ] **Dept. of Fish & Game**
  Banky Curtis
  Region 2
- [ ] **Dept. of Fish & Game**
  Robert Floerke
  Region 3
- [ ] **Dept. of Fish & Game**
  William Laudermilk
  Region 4
- [x] **Dept. of Fish & Game**
  Sandy Peterson
  Region 5, Habitat Conservation Program
- [ ] **Dept. of Fish & Game**
  Gabrina Gatchel
  Region 6, Habitat Conservation Program
- [ ] **Dept. of Fish & Game**
  Tammy Allen
  Region 6, Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game**
  Tom Napoli
  Marine Region

Independent Commissions

- [ ] **California Energy Commission**
  Environmental Office
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [x] **Public Utilities Commission**
  Andrew Barnsdale
- [x] **State Lands Commission**
  Betty Silva
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse Planner
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Lyn Barnett
- [ ] **Office of Emergency Services**
  John Rowden, Manager
- [ ] **Delta Protection Commission**
  Debby Eddy
- [ ] **Santa Monica Mountains Conservancy**
  Paul Edelman

Dept. of Transportation

- [ ] **Dept. of Transportation**
  IGR/Planning
  District 1
- [ ] **Dept. of Transportation**
  Vicki Roe
  Local, Development Review, District 2
- [ ] **Dept. of Transportation**
  Jeff Pulverman
  District 3
- [ ] **Dept. of Transportation**
  Jean Finney
  District 4
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  Lawrence Newland
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- [ ] **Dept. of Transportation**
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  Stephen J. Buswell
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  Mike Sim
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- [ ] **Dept. of Transportation**
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  District 9
- [ ] **Dept. of Transportation**
  Chris Sayre
  District 10
- [ ] **Dept. of Transportation**
  Lou Salazar
  District 11
- [ ] **Dept. of Transportation**
  Aileen Kennedy
  District 12

Business, Trans & Housing

- [x] **Housing & Community Development**
  Cathy Creswell
  Housing Policy Division
- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [x] **California Highway Patrol**
  Lt. Dennis Brunette
  Office of Special Projects
- [x] **Dept. of Transportation**
  Ron Helgeson
  Caltrans - Planning
- [ ] **Dept. of General Services**
  Robert Sleppy
  Environmental Services Section

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [ ] Transportation Projects
  Ann Geraghty
- [ ] Industrial Projects
  Mike Tollstrup

- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Diane Edwards
  Division of Clean Water Programs
- [ ] **State Water Resources Control Board**
  Greg Frantz
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Mike Falkenstein
  Division of Water Rights
- [x] **Dept. of Toxic Substances Cont**
  CEQA Tracking Center

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB**
  Central Coast Region (3)
- [x] **RWQCB**
  Jonathan Bishop
  Los Angeles Region (4)
- [ ] **RWQCB**
  Central Valley Region (5)
  - [ ] **RWQCB**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB**
  Lahontan Region (6)
  - [ ] **RWQCB**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB**
  Colorado River Basin Region (7)
- [ ] **RWQCB**
  Santa Ana Region (8)
- [ ] **RWQCB**
  San Diego Region (9)

SOUTHERN CALIFORNIA

ASSOCIATION of GOVERNMENTS

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www.scag.ca.gov

June 25, 2001

Ms. Tova Lelah
Assistant Director
Environmental Planning
UCLA Capital Programs
1060 Veteran Avenue
Los Angeles, CA 90095-1365

RE: **Comments on the Notice of Preparation for a Draft Subsequent Environmental Impact Report for the UCLA Long Range Development Plan Update - SCAG No. I 20010325**

Dear Ms. Lelah:

Thank you for submitting the **Notice of Preparation for a Draft Subsequent Environmental Impact Report for the UCLA Long Range Development Plan Update** to SCAG for review and comment. As areawide clearinghouse for regionally significant projects, SCAG reviews the consistency of local plans, projects, and programs with regional plans. This activity is based on SCAG's responsibilities as a regional planning organization pursuant to state and federal laws and regulations. Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

In addition, The California Environmental Quality Act requires that EIRs discuss any inconsistencies between the proposed project and the applicable general plans and **regional plans (Section 15125 [d])**. If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided.

Policies of SCAG's Regional Comprehensive Plan and Guide that may be applicable to your project are outlined in the attachment. **We expect the DSEIR to specifically cite the appropriate SCAG policies and address the manner in which the Project is consistent with applicable core policies or supportive of applicable ancillary policies. Please use our policy numbers to refer to them in your DSEIR. Also, we would encourage you to use a side-by-side comparison of SCAG policies with a discussion of the consistent or support of the policy with the Proposed Project.**

Please provide a minimum of 45 days for SCAG to review the DSEIR when this document is available. If you have any questions regarding the attached comments, please contact me at (213) 236-1867.

Sincerely,

Jeffrey M. Smith

JEFFREY M. SMITH, AICP
Senior Planner
Intergovernmental Review

COMMENTS ON THE PROPOSAL TO DEVELOP A DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT FOR THE UCLA LONG RANGE DEVELOPMENT PLAN UPDATE SCAG NO. I 20010325

PROJECT DESCRIPTION

The proposed Project considers the update of the University of California, Los Angeles's Long Range Development Plan. The plan is being updated to address anticipated growth in student enrollment. The Long Range Development Plan will consider the potential environmental effects of the development of the remaining approximately 1.9 million square feet of space under the 1990 LRDP, for academic, research, housing and other uses on campus.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The **Growth Management Chapter (GMC)** of the Regional Comprehensive Plan and Guide (RCPG) contains the following policies that are particularly applicable and should be addressed in the Draft SEIR for the Long Range Development Plan Update (LRDP).

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

Regional Growth Forecasts

The Draft EIR should reflect the most current SCAG forecasts which are the 2001 RTP (April 2001) Population, Households and Employment forecasts for the City of Los Angeles Subregion. This forecast is as follows:

City of Los Angeles Subregion Forecasts	**2000**	**2005**	**2010**	**2015**	**2020**
Population	3,823,062	4,030,730	4,210,853	4,387,980	4,628,339
Households	1,276,318	1,323,238	1,417,670	1,513,052	1,632,598
Employment	1,782,153	1,855,350	1,931,000	1,975,730	2,016,625

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.*

The **Regional Transportation Plan (RTP)** also has goals, objectives, policies and actions pertinent to this proposed project. This RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. Among the relevant goals, objectives, policies and actions of the RTP are the following:

Core Regional Transportation Plan Policies

4.01 Transportation investments shall be based on SCAG's adopted Regional Performance Indicators:

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)*
- *PM Peak Freeway Travel Speed – 45 minutes (Transit)*
- *PM Peak Non-Freeway Travel Speed*
- *Percent of PM Peak Travel in Delay (Fwy)*
- *Percent of PM Peak Travel in Delay (Non-Fwy)*

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*

Environment - Transportation system should sustain development and preservation of the existing system and the environment. (All Trips)

- *CO, ROG, NOx, PM10, PM2.5 – Meet the applicable SIP Emission Budget and the Transportation Conformity requirements*

Reliability – Transportation system should have reasonable and dependable levels of service by mode. (All Trips)

- *Transit – 63%*
- *Highway – 76%*

Safety - Transportation systems should provide minimal accident, death and injury. (All Trips)

- *Fatalities Per Million Passenger Miles – 0*
- *Injury Accidents – 0*

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*

Cost-Effectiveness - Maximize return on transportation investment (All Trips). Air Quality, Mobility, Accessibility and Safety

- *Return on Total Investment – Optimize return on Transportation Investments*

4.02 Transportation investments shall mitigate environmental impacts to an acceptable level.

4.04 Transportation Control Measures shall be a priority.

4.16 Maintaining and operating the existing transportation system will be a priority over expanding capacity.

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL STANDARD OF LIVING

The Growth Management goals to develop urban forms that enable individuals to spend less income on housing cost, that minimize public and private development costs, and that enable firms to be more competitive, strengthen the regional strategic goal to stimulate the regional economy. The evaluation of the proposed project in relation to the following policies would be intended to guide efforts toward achievement of such goals and does not infer regional interference with local land use powers.

3.05 Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities.

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.

3.10 Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL QUALITY OF LIFE

The Growth Management goals to attain mobility and clean air goals and to develop urban forms that enhance quality of life, that accommodate a diversity of life styles, that preserve open space and natural resources, and that are aesthetically pleasing and preserve the character of communities, enhance the regional strategic goal of maintaining the regional quality of life. The evaluation of the proposed project in relation to the following policies would be intended to provide direction for plan implementation, and does not allude to regional mandates.

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.

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.

3.18 Encourage planned development in locations least likely to cause environmental impact.

3.20 Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.

3.21 Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.

3.22 Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.

3.23 Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resource, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.

GMC POLICIES RELATED TO THE RCPG GOAL TO PROVIDE SOCIAL, POLITICAL, AND CULTURAL EQUITY

The Growth Management Goal to develop urban forms that avoid economic and social polarization promotes the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all segments of society. The evaluation of the proposed project in relation to the policy stated below is intended guide direction for the accomplishment of this goal, and does not infer regional mandates and interference with local land use powers.

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.*

AIR QUALITY CHAPTER CORE ACTIONS

The **Air Quality Chapter** core actions related to the proposed project includes:

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.*

5.11 *Through the environmental document 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.*

WATER QUALITY CHAPTER RECOMMENDATIONS AND POLICY OPTIONS

The **Water Quality Chapter** core recommendations and policy options relate to the two water quality goals: to restore and maintain the chemical, physical and biological integrity of the nation's water; and, to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters.

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.*

CONCLUSIONS

All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed project should be implemented and monitored, as required by CEQA.

ENDNOTE

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

SCAG is a ***Joint Powers Agency*** established under California Government Code Section 6502 et seq. Under federal and state law, SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG's mandated roles and responsibilities include the following:

SCAG is designated by the federal government as the Region's ***Metropolitan Planning Organization*** and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. '134(g)-(h), 49 U.S.C. '1607(f)-(g) et seq., 23 C.F.R. '450, and 49 C.F.R. '613. SCAG is also the designated ***Regional Transportation Planning Agency***, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080.

SCAG is responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the ***South Coast Air Quality Management Plan***, pursuant to California Health and Safety Code Section 40460(b)-(c). SCAG is also designated under 42 U.S.C. '7504(a) as a ***Co-Lead Agency*** for air quality planning for the Central Coast and Southeast Desert Air Basin District.

SCAG is responsible under the Federal Clean Air Act for determining ***Conformity*** of Projects, Plans and Programs to the Air Plan, pursuant to 42 U.S.C. '7506.

Pursuant to California Government Code Section 65089.2, SCAG is responsible for ***reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans*** required by Section 65080 of the Government Code. SCAG must also evaluate the consistency and compatibility of such programs within the region.

SCAG is the authorized regional agency for ***Inter-Governmental Review*** of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

SCAG reviews, pursuant to Public Resources Code Sections 21083 and 21087, ***Environmental Impact Reports*** of projects of regional significance for consistency with regional plans [California Environmental Quality Act Guidelines Sections 15206 and 15125(b)].

Pursuant to 33 U.S.C. '1288(a)(2) (Section 208 of the Federal Water Pollution Control Act), SCAG is the authorized ***Areawide Waste Treatment Management Planning Agency.***

SCAG is responsible for preparation of the ***Regional Housing Needs Assessment***, pursuant to California Government Code Section 65584(a).

SCAG is responsible (with the San Diego Association of Governments and the Santa Barbara County/Cities Area Planning Council) for preparing the ***Southern California Hazardous Waste Management Plan*** pursuant to California Health and Safety Code Section 25135.3.

STATE OF CALIFORNIA — Gray Davis, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

July 5, 2001

Tova Lelah
Regents of the University of California
1060 Veteran Avenue, CPB 3rd Floor
Los Angeles, CA 9005

RE: SCH# 1989072618 – UCLA Long Range Development Plan Update

Dear Ms. Lelah:

The Native American Heritage Commission has reviewed the above mentioned NOP. To adequately assess the project-related impact on archaeological resources, the Commission recommends the following actions be required:

✓ Contact the appropriate Information Center for a records search. The record search will determine:
  - Whether a part or all of the project area has been previously surveyed for cultural resources.
  - Whether any known cultural resources have already been recorded on or adjacent to the project area.
  - Whether the probability is low, moderate, or high that cultural resources are located within the project area.
  - Whether a survey is required to determine whether previously unrecorded cultural resources are present.

✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The report containing site significance and mitigation measurers should be submitted immediately to the planning department.
  - The site forms and final written report should be submitted within 3 months after work has been completed to the Information Center.

✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check.
  - A list of appropriate Native American Contacts for consultation concerning the project site and assist in the mitigation measures.

✓ Provisions for accidental discovery of archeological resources:
  - Lack of surface evidence of archeological resources does not preclude the existence of archeological resources. Lead agencies should include provisions for accidentally discovered archeological resources during construction per California Environmental Quality Act (CEQA) §15064.5 (f).

✓ Provisions for discovery of Native American human remains
  - Health and Safety Code §7050.5, CEQA §15064.5 (e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery and should be included in all environmental documents.

If you have any questions, please contact me at (916) 653-4040.

Sincerely,

Rob Wood

Rob Wood
Associate Governmental Program Analyst

CC: State Clearinghouse

STATE OF CALIFORNIA-THE RESOURCES AGENCY GRAY DAVIS, *Governor*

DEPARTMENT OF FISH AND GAME
South Coast Region
4949 Viewridge Avenue
San Diego, California 92123
(858) 467-4201
FAX (858) 467-4239

July 9, 2001

Ms. Tova Lelah
Regents of the University of California
1060 Veteran Avenue, CPB 3rd Floor
Los Angeles, CA 90095

Dear Ms. Lelah:

Notice of Preparation of an Environmental Impact Report for UCLA Long Range Development Plan Update SCH# 1989072618, Los Angeles County

The Department of Fish and Game (Department) appreciates this opportunity to comment on the above-referenced project, relative to impacts to biological resources. The proposed project consists of updating the campus' Long Range Development Plan to address anticipated growth in student enrollment. The UCLA campus is located in the City of Los Angeles at Westwood Boulevard and LeConte Avenue.

To enable Department staff to adequately review and comment on the proposed environmental document, we recommend the following information, where applicable, be evaluated and included in the document:

1. A complete, recent assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species.

    a. A thorough recent assessment of rare plants and rare natural communities, following the Department's May 1984 Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities (Attachment 1).

    b. A complete recent assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Recent, focused, species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and U.S. Fish and Wildlife Service.

c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, § 15380). The EIR should address avoidance and mitigation measures to reduce significant direct and indirect adverse project impacts to sensitive species.

d. The Department's California Natural Diversity Data Base in Sacramento should be contacted at (916) 324-3812 to obtain current information on any previously reported sensitive species and habitats, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Also, any Significant Ecological Areas (SEAs) or environmentally Sensitive Habitat Area (ESHAs) that have been identified by the County of Los Angeles or any areas that are considered sensitive by the local jurisdiction that are located in or adjacent to the project area must be addressed.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts.

a. CEQA Guidelines, § 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

b. Project impacts should also be analyzed relative to their effects on off-site habitats and populations. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems.

c. A cumulative effects analysis should be developed as described under CEQA Guidelines, § 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

d. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture of kill (Fish and Game Code Section 86).

1. Proposed project activities (including disturbances to native and non-native vegetation) should take place outside of the breeding bird season which generally runs from March 1- September 1 (as early as February 1 for raptors) to avoid take (including disturbances which

would cause abandonment of active nests containing eggs and/or young).

2. If project activities cannot feasiblely avoid the breeding bird season, the Department recommends that beginning thirty days prior to the disturbance of suitable nesting habitat the project proponent should arrange for weekly bird surveys to detect any protected native birds in the habitat to be disturbed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors). The surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys should continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work. If a protected native bird is found, the project proponent should delay all clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until September 1 or continue the surveys in order to locate any nests. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to the protection of native birds. Department recommends a minimum 500 foot buffer for all active raptor nests.)

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

   a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Compensation for unavoidable impacts through acquisition and protection of high quality habitat elsewhere should be addressed.

   b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).

c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful. Please contact Ms. Mary Meyer, Plant Ecologist at (805) 640-8019 to discuss project related impacts to sensitive plant species and communities.

d. The Department requires all mitigation areas to be excluded from County or City required Fuel Modification Zones (FMZ). Acreage intended to satisfy either habitat buffer or mitigation requirements will not be considered to have value if included in a FMZ or planted with species consistent with FMZ requirements, rather than habitat restoration requirements.

4. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit. For these reasons, the following information is requested:

a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.

b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

5. The Department opposes the elimination of watercourses and/or their channelization or conversion to subsurface drains. All wetlands and watercourses, whether intermittent or perennial, must be retained and provided with substantial setbacks which preserve the riparian and aquatic habitat values and maintain their value to on-site and off-site wildlife populations.

a. The Department requires a streambed agreement, pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to any direct or indirect impact (including preliminary geotechnical activities) of a lake or stream bed, bank or channel or associated riparian resources. The Department's issuance of a stream bed alteration agreement is considered a project that is subject to CEQA. To facilitate our issuance of the agreement, the Department as a responsible agency under CEQA may consider the local jurisdiction's (lead agency) document for the project. To minimize additional requirements by the Department under CEQA the document should fully identify the potential impacts to any lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. Please contact Ms. Betty Courtney, Environmental Specialists III, at (661) 263-8306 to discuss this further.

Thank you for this opportunity to provide comment. Questions regarding this letter and further coordination on these issues should be directed to Mr. Scott Harris, Associate Wildlife Biologist at (818) 360-8140.

Sincerely,

Scott Harris for

Ms. Morgan Wehtje
Environmental Scientist IV

Attachments

cc: Mr. Scott Harris
Department of Fish and Game

State Clearinghouse
Sacramento, California

ATTACHMENT 1

State of California
THE RESOURCES AGENCY
Department of Fish and Game
May 4, 1984

GUIDELINES FOR ASSESSING THE EFFECTS OF PROPOSED DEVELOPMENTS ON RARE AND ENDANGERED PLANTS AND PLANT COMMUNITIES

The following recommendations are intended to help those who prepare and review environmental documents determine <u>when</u> a botanical survey is needed, <u>who</u> should be considered qualified to conduct such surveys, <u>how</u> field surveys should be conducted and <u>what</u> information should be contained in the survey report.

1. Botanical surveys that are conducted to determine the environmental effects of a proposed development should be directed to all rare and endangered plants and plant communities. Rare and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare and/or endangered under the following definitions.

   A species, subspecies or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy form one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition or disease. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

   Rare plant communities are those communities that are of highly limited distribution. These communities may or may not contain rare or endangered species. The most current version of the California Natural Diversity Data Base's Outline of Terrestrial Communities in California may be used as a guide to the names of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or the extent that, rare plants will be affected by a proposed project when:

   a. Based on an initial biological assessment, it appears that the project may damage potential rare plant habitat;

   b. Rare plants have historically been identified on the project site, but adequate information of impact assessment is lacking; or

   c. No initial biological assessment has been conducted and it is unknown whether or not rare plants or their habitat exist on the site.

3. Botanical consultants should be selected on the basis of possession of the following qualifications (in order of importance):

   a. Experience as a botanical field investigator with experience in field sampling design and field methods;

   b. Taxonomic experience and a knowledge of plant ecology;

   c. Familiarity with the plants of the area, including rare species; and

   d. Familiarity with the appropriate state and federal statutes related to rare plants and plant collecting.

4. Field surveys should be conducted in a manner that will locate any rare or endangered species that may be present. Specifically, rare or endangered plant surveys should be:

   a. Conducted at the proper time of year when rare or endangered species are both "evident" and identifiable. Field surveys should be scheduled (1) to coincide with known flowering periods, and/or (2) during periods of phenological development that are necessary to identify the plant species of concern.

b. Floristic in nature. "Predictive surveys" (which predict the occurrence of rare species based on the occurrence of habitat or other physical features rather than actual field inspection) should be reserved for ecological studies, not for impact assessment. Every species noted in the field should be identified to the extent necessary to determine whether it is rare or endangered.

c. Conducted in a manner that is consistent with conservation ethics. Collection of rare or suspected rare species (voucher specimens) should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit regulations. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.

d. Conducted using systematic field techniques in all habitats of the site to ensure a reasonably thorough coverage of potential impact areas.

e. Well documented. When a rare or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form should be completed and submitted to the Natural Diversity Data Base.

5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations, EIR's and EIS's, should contain the following information:

a. Project description, including a detailed map of the project location and study area.

b. A written description of biological setting referencing the community nomenclature used and a vegetation map.

c. Detailed description of survey methodology.

d. Dates of field surveys.

e. Results of survey (including detailed maps).

f. An assessment of potential impacts.

g. Discussion of the importance of rare plant populations with consideration of nearby populations and total species distribution.

h. Recommended mitigation measures to reduce or avoid impacts.

i. List of all species identified.

j. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.

k. Name of field investigator(s).

l. References cited, persons contacted, herbaria visited, and disposition of voucher specimens.

ATTACHMENT 2

Sensitivity of Top Priority Rare Natural
Communities in Southern California*

*Sensitivity rankings are determined by the Department of Fish and Game, alifornia Natural Diversity Data Base and based on either number of known ccurrences (locations) and/or amount of habitat remaining (acreage). The hree rankings used for these top priority rare natural communities are as ollows:

1.- Less than 6 known locations and/or on less than 2,000 acres of habitat remaining

2.- Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining

3.- Occurs in 21-100 known locations and/or 10,000-50,000 acres of habitat remaining

The number to the right of the decimal point after the ranking refers to he degree of threat posed to that natural community regardless of the ranking or example:

S1.1 = very threatened
S2.2 = threatened
S3.3 = no current threats known

Sensitivity Rankings (February 1992)

Rank	Community Name
S1.1	Mojave Riparian Forest
	Sonoran Cottonwood Willow Riparian
	Mesquite Bosque
	Elephant Tree Woodland
	Crucifixion Thorn Woodland
	Allthorn Woodland
	Arizonan Woodland
	Southern California Walnut Forest
	Mainland Cherry Forest
	Southern Bishop Pine Forest
	Torrey Pine Forest
	Desert Mountain White Fir Forest
	Southern Dune Scrub
	Southern Coastal Bluff Scrub
	Maritime Succulent Scrub
	Riversidean Alluvial Fan Sage Scrub
	Southern Maritime Chaparral
	Valley Needlegrass Grassland
	Great Basin Grassland
	Mojave Desert Grassland
	Pebble Plains
	Southern Sedge Bog
	Cismontane Alkali Marsh

Sensitivity Rankings (Cont.)

Community Name

S1.2 Southern Foredunes
Mono Pumice Flat
Southern Interior Basalt Fl. Vernal Pool

S2.1 Venturan Coastal Sage Scrub
Diegan Coastal Sage Scrub
Riversidean Upland Coastal Sage Scrub
Riversidean Desert Sage Scrub
Sagebrush Steppe
Desert Sink Scrub
Mafic Southern Mixed Chaparrel
San Diego Mesa Hardpan Vernal P.
San Diego Mesa Claypan Vernal P.
Alkali Meadow
Southern Coastal Salt Marsh
Coastal Brackish Marsh
Transmontane Alkali Marsh
Coastal and Valley Freshwater Marsh
S. Arroya Willow Riparian Forest
Southern Willow Scrub
Modoc-G.Bas. Cottonwood Willow Rip.
Modoc-Great Basin Riparian Scrub
Mojave Desert Wash Scrub
Engelmann Oak Woodland
Open Engelmann Oak Woodland
Closed Engelmann Oak Woodland
Island Oak Woodland
California Walnut Woodland
Island Ironwood Forest
Island Cherry Forest
S. Interior Cypress Forest
Bigcone Spruce-Canyon Oak Forest

S2.2 Active Coastal Dunes
Active Desert Dunes
Stab. and Part. Stab. Desert Dunes
Stab. and Part. Stab. Desert Sandfield
Mojave Mixed Steppe
Transmontane Freshwater Marsh
Coulter Pine Forest
S. California Fellfield
White Mountains Fellfield

S2.3 Bristlecone Pine Forest
Limber Pine Forest

CITY OF LOS ANGELES

CALIFORNIA

FRANCES T. BANERJEE
GENERAL MANAGER

DEPARTMENT OF TRANSPORTATION
221 N. FIGUEROA STREET, SUITE 500
LOS ANGELES, CA 90012
(213) 580 1177
FAX: (213) 580-1188

RICHARD J. RIORDAN
MAYOR

July 9, 2001

Tova Lelah, Assistant Director
UCLA Capital Programs
1060 Veteran Avenue
Los Angeles, CA 90095-1365

NOTICE OF PREPARATION FOR THE DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (SEIR) FOR THE UCLA LONG RANGE DEVELOPMENT PLAN UPDATE PROJECT

The Los Angeles Department of Transportation (DOT) has reviewed the Notice of Preparation for the Draft SEIR for the UCLA Long Range Development Plan Update Project. The Notice of Preparation states that a detailed analysis will be conducted to evaluate potential environmental effects for transportation, parking and access . The project's traffic consultant should contact DOT to set up a pre-scoping meeting to determine the necessary requirements and key assumptions including, but not limited to, trip generation rates, geographic distribution, trip assignment, study intersections, significant impact criteria, existing conditions, future roadway improvements and related development projects, for preparing the traffic analysis.

If you have any questions you may contact me at (213) 485-1062.

Sincerely,

ESTHER TAM, Transportation Engineer
DOT WLA/Coastal Development Review
7166 W. Manchester Avenue
Los Angeles, CA 90045

C:\MyFiles\UCLA\lrdpnop.wpd

c: George Rhyner, Crain & Associates
Allyn Rifkin, DOT
Jay Kim, DOT

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, *Governor*

DEPARTMENT OF TRANSPORTATION
OFFICE OF REGIONAL PLANNING
DISTRICT 7, IGR OFFICE 1-10C
120 SOUTH SPRING STREET
LOS ANGELES, CA 90012
TEL: (213) 897-6696 FAX: (213) 897-6317

July 11, 2001

Ms. Tova Lelah
Assistant Director
Environmental Planning UCLA Capital Programs
1060 Veteran Avenue, CPB 3rd floor
Los Angeles, CA 90095

RE: IGR/CEQA No. 010640/EA
UCLA Long Range Development Plan Update
Supplemental Draft EIR
Vic. LA / 405 / 31.54 – 33.00
SCH No. 1989072618

Dear Ms. Lelah:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the proposed update of the UCLA's Long Range Development Plan (LRDP). The LRDP SEIR will consider the potential environmental effects of the development of the remaining approximately 1.9 million square-feet of space under the 1990 LRDP. In addition, the LRDP SEIR will serve as a program EIR for the consideration of subsequent actions consistent with the LRDP Update.

To assist us in our efforts to evaluate the impacts of this project on state transportation facilities, a traffic study in advance of the DEIR should be prepared to analyze the following information.

1. Assumptions and methods used to develop trip generation/distribution percentages and assignments.

2. An analysis of ADT, AM, and PM peak-hour volumes for both the existing and future (expected project build-out) conditions. This should include I-405 and I-10, affected ramps, streets, crossroads, and controlling intersections (i.e. Wilshire Boulevard/Veteran Avenue). This analysis should include project traffic, cumulative traffic generated for all approved developments in the area, Interchange Utilization (I.C.U.) and Level of Service (LOS) of affected freeway ramp intersections on the State Highway.

3. Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts. These mitigation discussions should include, but not be limited to, the following:

   o financing
   o scheduling considerations
   o implementation responsibilities
   o monitoring plan

JUL 20 1 37 PM '01
UCLA CAPITAL PROGRAMS

4. Any assessment fees for mitigation should be of such proportion as to cover mainline highway deficiencies that occur as a result of the additional traffic generated by the project.

It is acknowledged in previous environmental documents prepared by UCLA (Luck Research Center FEIR, etc.) that there are mitigation programs being considered to address cumulative traffic impacts in the area and that they have not yet being approved nor funded. We ask that UCLA participate in fair share contributions towards traffic improvements to off-campus sites identified by the 1990 Long-Range Development Plan. Implementation of regional plans to improve traffic mobility in the campus vicinity should also be within the jurisdiction of The Board of Regents.

We look forward to reviewing the traffic impact study. We expect to receive a copy from the State Clearinghouse when the DEIR is completed. However, to expedite the review process and clarify any misunderstandings, you may send a copy in advance to the undersigned.

If you have any questions regarding this response, you can reach me at (213) 897-4429 and refer to IGR/CEQA No. 010640/EA

Sincerely,

Stephen J. Buswell

STEPHEN J. BUSWELL
IGR/CEQA Program Manager
Transportation Planning Office
Caltrans, District 7

cc: Scott Morgan, State Clearinghouse

THE URBAN WILDLANDS GROUP, INC.
P.O. BOX 24020. LOS ANGELES. CALIFORNIA 90024-0020. TEL (310) 276-2306

July 11, 2001

Tova Lelah, Assistant Director
Environmental Planning
UCLA Capital Programs
1060 Veteran Avenue, Box 951365
Los Angeles, CA 90095-1365

Re: LRDP Update Draft Subsequent Environmental Impact Report

Dear Ms. Lelah:

The Urban Wildlands Group is dedicated to the conservation and enhancement of natural habitats on the urban-wildland interface, seeking to protect and restore biodiversity through restoration, research, and education.

In response to the Notice of Preparation for the DSEIR for the LRDP Update, we note that although loss of vegetation and the Migratory Bird Treaty Act are listed as issues to be covered in the document, the checkbox for "wildlife" is not checked on the "Notice of Completion — Form A." Please check "wildlife" on this form and ensure that the DSEIR adequately evaluates impacts to resident and migratory birds and other wildlife.

Sincerely,

Travis Longcore

Travis Longcore, Ph.D.

Appendix 2 March 20, 2002, Revised NOP/IS and Comment Letters

UNIVERSITY OF CALIFORNIA, LOS ANGELES

UCLA

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SANTA BARBARA • SANTA CRUZ

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MAR 26 2002

CAMPUS CAPITAL PLANNING
1060 VETERAN AVENUE
BOX 951365
LOS ANGELES, CA. 90095-1365

BY Federal Express...

March 20, 2002

State of California
Office of Planning and Research
1400 Tenth Street, Room 222
Sacramento, CA 95814

REVISED NOTICE OF PREPARATION

DRAFT ENVIRONMENTAL IMPACT REPORT

Project Title:	2002 Long Range Development Plan and Northwest Housing Infill Project
Project Number:	948365 and 948380
Lead Agency:	University of California
Project Location:	University of California, Los Angeles campus
County:	Los Angeles

Project Description: On June 12, 2001, the University of California, Los Angeles (UCLA) filed a Notice of Preparation for a proposed update of the campus Long Range Development Plan (LRDP) previously adopted by The Regents of the University of California in November 1990. The LRDP update ("2002 LRDP") is being undertaken to address anticipated growth in student enrollment by 2010 as described herein. Planning efforts underway to update the LRDP have converged with planning to address the housing needs of existing and anticipated student enrollment. In this regard, UCLA proposes to construct additional on-campus student housing in the Northwest Housing Infill Project. This Revised Notice of Preparation is being filed to acknowledge that the potential environmental effects of both the 2002 LRDP and the proposed Northwest Housing Infill Project will be considered in a single Environmental Impact Report

(EIR). It is therefore envisioned that the EIR will include a program level analysis for implementation of the 2002 LRDP; and a project level analysis for implementation of the proposed Northwest Housing Infill Project element of the 2002 LRDP.

2002 LRDP

The State of California Department of Finance and the Public Postsecondary Education Commission anticipate substantial population growth and a consequential increase in demand for higher education in the State over the next decade. The University proposes to accommodate this increase in order to meet the State's needs and sustain its commitment to ensure access to public higher education under the Master Plan for Higher Education in California. It is anticipated that UCLA could experience an increase in enrollment of approximately 4,000 full time equivalent students by the year 2010. This potential increase would exceed the student enrollment assumptions in the adopted 1990 LRDP. Accordingly, UCLA will update the LRDP and prepare an Environmental Impact Report ("the 2002 LRDP EIR") in accordance with Section 21080.09 of the California Environmental Quality Act.

The 2002 LRDP EIR will incorporate relevant information and analyses from the Final EIR on the 1990 LRDP (SCH#89072618), certified by The Regents of the University of California in November, 1990 ("1990 LRDP FEIR"). The 1990 LRDP FEIR previously analyzed the environmental consequences of a proposed 3.71 million square feet of new development between 1990 and 2005. The 2002 LRDP EIR will evaluate the anticipated enrollment increase and the completion of the previously analyzed development program by 2010, of which approximately 1.9 million gross square feet remains. Furthermore, the 2002 LRDP EIR will incorporate the 1990 LRDP mitigation measures as appropriate, including the limits on the campus overall parking inventory and vehicular trip generation. By so doing, the 2002 LRDP will extend the 1990 LRDP from the original 2005 horizon year to 2010 by maintaining the overall development square footage, parking and trip generation limits of the Plan while accommodating an increased level of enrollment and associated population growth.

The 2002 LRDP EIR will consider the potential environmental effects of the development of the remaining approximately 1.9 million square feet of space allowed under the 1990 LRDP for academic, research, housing and other uses on campus. In addition, the 2002 LRDP EIR will serve as a program EIR for the consideration of subsequent project proposals consistent with the 2002 LRDP. As part of the environmental analysis for the 2002 LRDP, the University will evaluate all of the mitigation measures identified in the 1990 LRDP FEIR to determine whether new or modified mitigation measures are necessary to reduce the potential significant impacts of campus development through 2010.

Northwest Housing Infill Project

As discussed above, the 2002 LRDP EIR will consider the potential environmental effects of a proposed project to provide additional undergraduate student housing in the Northwest zone of the campus (Northwest Student Housing Infill Project), an integral element of the proposed 2002 LRDP. The project would include the following: up to 2,000 beds of undergraduate student housing in three or more buildings adjacent to existing residential halls in the Northwest zone; (2) a parking facility south of Dykstra Hall to provide approximately 299 parking spaces (approximately 233 replacement and 66 new); (3) a recreation facility, 25-meter pool and low-intensity outdoor recreation space on a site between the Hitch and Saxon Residential Suites; and (4) the reconfiguration of the ground floors of three existing nearby residential halls. The project would result in the construction of up to 550,000 gross square feet of net new development on the UCLA campus. This square footage is included in the proposed 1.9 million square feet of development being considered in the 2002 LRDP.

In compliance with the State and University of California guidelines for implementation of the California Environmental Quality Act, this Revised Notice of Preparation is hereby sent to inform the State of California, Office of Planning and Research, that the University of California, Los Angeles is preparing a Draft Environmental Impact Report on the above-named projects. The attached Initial Study has been prepared to identify the potential environmental issues that will be addressed in the EIR for the 2002 LRDP, including the proposed Northwest Housing Infill Project, in accordance with CEQA as amended.

As Lead Agency, the University of California is interested in the views of public agencies with respect to the scope and content of the environmental information which is germane to each agency's statutory responsibilities in connection with the proposed projects. Similarly, the University is interested in the views of individuals and organizations with respect to the scope and content of the EIR. Agencies and individuals that commented on the June 2001 Notice of Preparation (NOP) are invited to re-submit comments based upon the revised project described herein and considered in the attached Initial Study.

Due to the time limits mandated by State law, responses to this Revised NOP must be sent at the earliest possible date, but not later than 30 days after receipt of this Notice. A public information and EIR scoping meeting is scheduled for April 6, 2002 at the UCLA campus and will be advertised in local newspapers and by direct mailing to notify interested individuals, organizations, associations and agencies. Please designate a contact person from the State Office of Planning and Research and send responses to the address below.

Sincerely,

Tova Lelah

Tova Lelah
Assistant Director
Campus and Environmental Planning
UCLA Capital Programs
1060 Veteran Avenue
Los Angeles, CA 90095-1365
Fax (310) 206-1510

Attachments: NOP Initial Study, March 2002
Document Transmittal Form
Regional and Campus Location Maps

cc: General Manager Frankie Banerjee, Los Angeles Department of Transportation
Mr. Stephen Buswell, California Department of Transportation
Mr. Dennis Dickerson, California Regional Water Quality Control Board
Ms. Viviane Doche, Southern California Association of Governments
Ms. Kathryn Higgins, SCAQMD
Mr. Philip Thomas, CEO, Veterans Administration of Greater Los Angeles
Superintendent Roy Romer, Los Angeles Unified School District
Dr. Mary Ellen Gozdecki, Marymount High School
Principal Margaret Heritage, Corinne A. Seeds University Elementary School
Honorable Zev Yaroslavsky, County Supervisor, 3rd District
Honorable Henry Waxman, U.S. Congress, California, 29th District
Honorable Paul Koretz, State Assembly, 42nd District
Honorable Herb J. Wesson, Jr., State Assembly, 47th District
Honorable Sheila James Kuehl, State Senate, 23rd District
Councilmember Cindy Miscikowski, 11th District
Councilmember Jack Weiss, 5th District
Chief Roy Prince, Building Administration, Los Angeles City Fire Department
State of California, Department of Fish and Game

City Planning Departments

Community Planning and Development, City of Santa Monica
Planning Department, City of Los Angeles
Planning Department, City of Beverly Hills
Planning Department, Culver City
Planning Department, West Hollywood

County Agencies

County of Los Angeles, Regional Planning, Environmental Section
Los Angeles County Clerk

University of California and UCLA Administrators

Local Associations and Individuals

bcc: University of California

Assistant Vice President Michael Bocchicchio
Vice President and General Counsel James Holst
Senior Planner Mary O'Keefe, Planning and Design
University Counsel Hope Schmeltzer
Director Jack Zimmerman, Planning and Design

UCLA

Chancellor Albert Carnesale

Assistant Vice Chancellor Max Benavidez
Administrative Vice Chancellor Peter W. Blackman
Executive Director Diana Brueggemann
Assistant Vice Chancellor Glyn Davies
Vice Chancellor Michael C. Eicher
Campus Architect Marc Fisher
Director Kathy FitzGerald, Project Management, Capital Programs
Director Mike Foraker, Housing and Hospitality Services
Associate Director Renee Fortier, Transportation Services
Executive Vice Chancellor Wyatt R. Hume
Associate Vice Chancellor Paula Lutomirski
Director John MacDougall, Engineering, Capital Programs
Vice Chancellor Joseph D. Mandel
Associate Administrative Vice Chancellor Sam Morabito
Assistant Vice Chancellor Michael O'Donnell
Assistant Vice Chancellor Jack Powazek
Assistant Vice Chancellor Sue Santon
Director Natalie Shivers, Campus Capital Planning, Capital Programs
Director Mark Stocki, Transportation Services
Stephanie Tollenaere, Principal Project Manager, Capital Programs

UCLA Academic Senate, Council on Planning and Budget
President, Graduate Student Association
President, Undergraduate Student's Association Council

bcc: Local Associations and Individuals

Mr. Richard Agay, Westside Community Planning Council
Ms. Elizabeth Brainard, President, Brentwood Glen Homeowners Association
Ms. Sandy Brown, The Holmby-Westwood Property Owners Association, Inc.
Ms. Beatrice Collins, Holmen Condo Association
Mr. Don Farkas, Bel-Air/Beverly Crest Neighborhood Council, Casiano Bel-Air Estates
Ms. Elaine Gerdau, President, Bel-Air Association
Dr. Laura Lake, Friends of Westwood
Ms. Mary Leslie, Interim President, Los Angeles Business Council
Travis Longcore, Ph.D., The Urban Wildlands Group
Ms. Carole Magnuson, President, Westwood Hills Property Owners Association
Mr. Mike Metcalf, Save Westwood Village
Mr. & Mrs. Alvin Milder, UCLA Watch
Mr. Tom Paterson, The Holmby Westwood Property Owners Association, Inc.
Mr. Scott Regberg
Mr. Robert Ringler, President, Residents of Beverly Glen
Mr. Steve Sann
Professor Donald Shoup, UCLA School of Public Policy
Ms. Shelly Taylor, North Village Association
Mr. Stephen Twining, President Roscomare Valley & Hillside Homeowners Association
Mr. Bob Walsh, Executive Director, Westwood Community Alliance
Ms. Liza White, Westwood Community Neighborhood Council Organizing Committee

Notice of Completion — Form A

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 (916) 445-0613

See Note Below
SCH#

Project Title: UCLA 2002 Long Range Development Plan (LRDP) and Northwest Housing Infill Project

Lead Agency: University of California , Los Angeles — Contact Person: Tova Lelah

Street Address: 1060 Veteran Avenue, CPB 3rd Fl. — Phone: (310) 206-5482

City: Los Angeles — Zip: 90095 — County: Los Angeles

Project Location

County: Los Angeles — City/Nearest Community: West Los Angeles

Cross Streets: Westwood Plaza/Le Conte Avenue — Zip Code: 90095 — Total Acres: 419

Assessor's Parcel No.___ — Section/Twp.___ — Range/Base:___

Within 2 Miles: — State Hwy #: I-405 — Waterways:___

Airports:___ — Railways:___ — Schools:___

Document Type

CEQA:
- ☑ NOP
- ☐ Early Cons
- ☐ Neg Dec
- ☑ Draft EIR
- ☐ Supplement/Subsequent EIR (Prior SCH No.) ___
- ☐ Other___

NEPA:
- ☐ NOI
- ☐ EA
- ☐ Draft EIS
- ☐ FONSI

Other:
- ☐ Joint Document
- ☐ Final Document
- ☐ Other___

Local Action Type

- ☐ General Plan Update
- ☐ General Plan Amendment
- ☐ General Plan Element
- ☐ Community Plan
- ☐ Specific Plan
- ☐ Master Plan
- ☐ Planned Unit Development
- ☐ Site Plan
- ☐ Rezone
- ☐ Prezone
- ☐ Use Permit
- ☐ Land Division (Subdivision, Parcel & Tract Map, etc.)
- ☐ Annexation
- ☐ Redevelopment
- ☐ Coastal Permit
- ☑ Other LRDP & project approval

Development Type

- ☑ Residential: Units___ Acres___
- ☐ Office: Sq. ft.___ Acres___ Employees___
- ☐ Commercial: Sq. ft.___ Acres___ Employees___
- ☐ Industrial: Sq. ft.___ Acres___ Employees___
- ☐ Educational___
- ☐ Recreational___
- ☐ Water Facilities: Type___ MGD___
- ☐ Transportation: Type___
- ☐ Mining: Mineral___
- ☐ Power: Type___ Watts___
- ☐ Waste Treatment: Type___
- ☐ Hazardous Waste: Type___
- ☑ Other LRDP

Project Issues Discussed in Document

☑

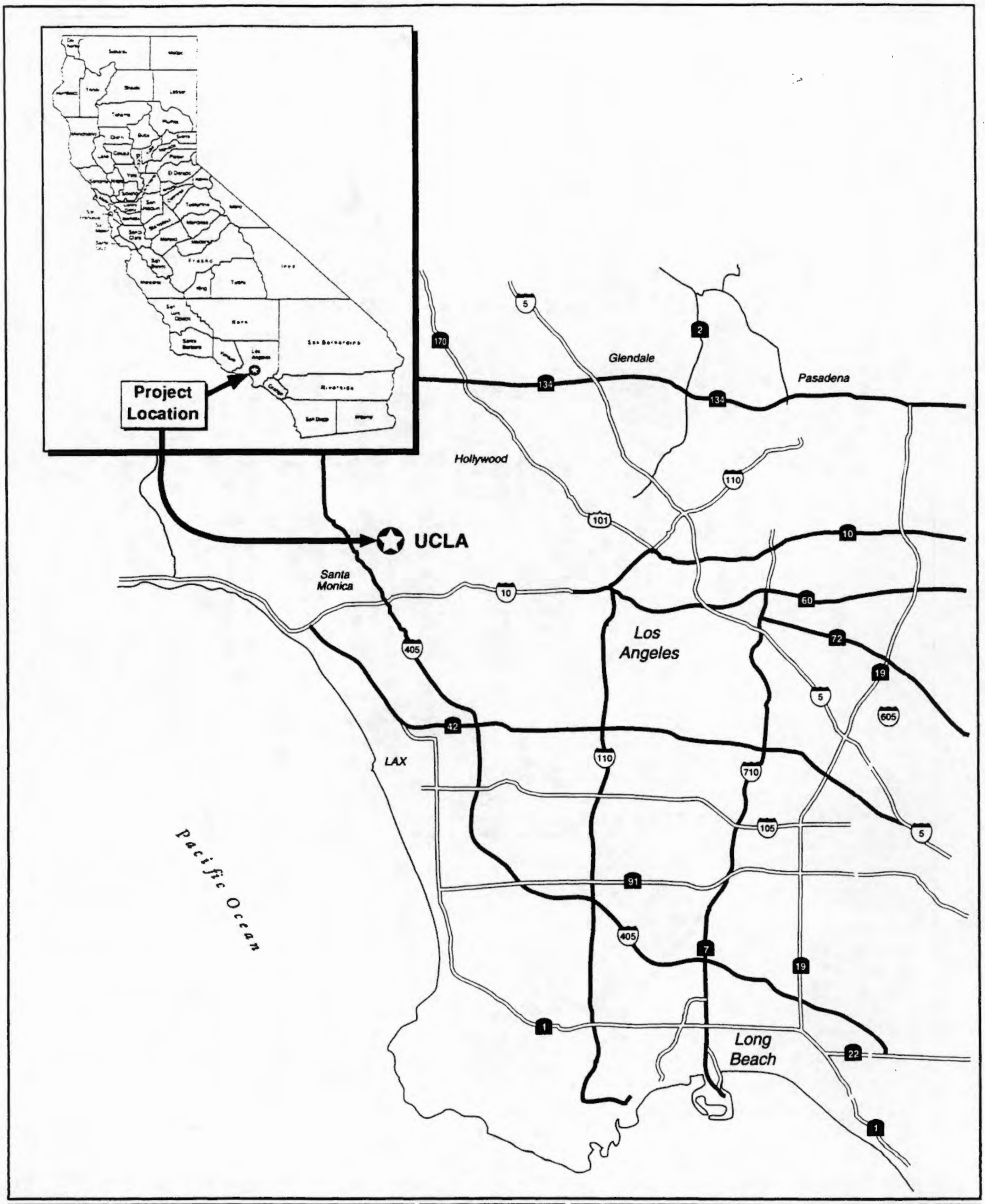
- ☑ Aesthetic/Visual
- ☐ Agricultural Land
- ☑ Air Quality
- ☑ Archeological/Historical
- ☐ Coastal Zone
- ☑ Drainage/Absorption
- ☐ Economic/Jobs
- ☐ Fiscal
- ☑ Flood Plain/Flooding
- ☐ Forest Land/Fire Hazard
- ☑ Geologic/Seismic
- ☐ Minerals
- ☑ Noise
- ☑ Population/Housing Balance
- ☑ Public Services/Facilities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

Present Land Use/Zoning/General Plan Use — Campus

Project Description

The University of California, Los Angeles proposes to update the campus' Long Range Development Plan (LRDP), previously adopted by The Regents of the University of California in November 1990. The 2002 LRDP will be undertaken to address anticipated growth in enrollment of approximately 4,000 full-time-equivalent students by the year 2010. Planning efforts underway to update the LRDP have converged with planning to address the housing needs of existing and anticipated enrollment. UCLA now proposes to construct additional on-campus student housing in the Northwest Housing Infill Project (NW Hsg). The NW Hsg project would include up to 2,000 beds of undergraduate student housing in three or more buildings, a parking facility to provide approximately 299 spaces (approximately 233 replacement and 66 new); a recreation facility and reconfiguration of the ground floors of three existing residence halls. The project would result in the construction of up to 550,000 gross square feet (gsf) of net new development. The 1990 LRDP FEIR previously analyzed the environmental consequences of 3.71 million gsf of new development between 1990 and 2005. The 2002 LRDP will evaluate the anticipated enrollment increase and the completion, by approximately 2010, of the previously analyzed development program, of which approximately 1.9 million gsf remains. In this regard, the LRDP will consider the potential environmental effects of the development of approximately 1.9 million gsf of space for academic, research, housing and other uses on campus. It is envisioned that the EIR will include a program level analysis for implementation of the 2002 LRDP; and a project level analysis for implementation of the proposed NW Hsg Project element of the 2002 LRDP. Furthermore, the 2002 LRDP EIR will incorporate the 1990 LRDP mitigation measures as appropriate, including the limits on the campus overall parking inventory and vehicular trip generation. By so doing, the 2002 LRDP will extend 1990 LRDP from the original 2005 horizon year to 2010 by maintaining the overall development square footage, parking and trip generation limits of the Plan while accommodating an increased level of enrollment and associated population growth.

Note: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exist for a project (e.g. from a Notice of Preparation or previous draft document) Please fill it in. Revised October 1989

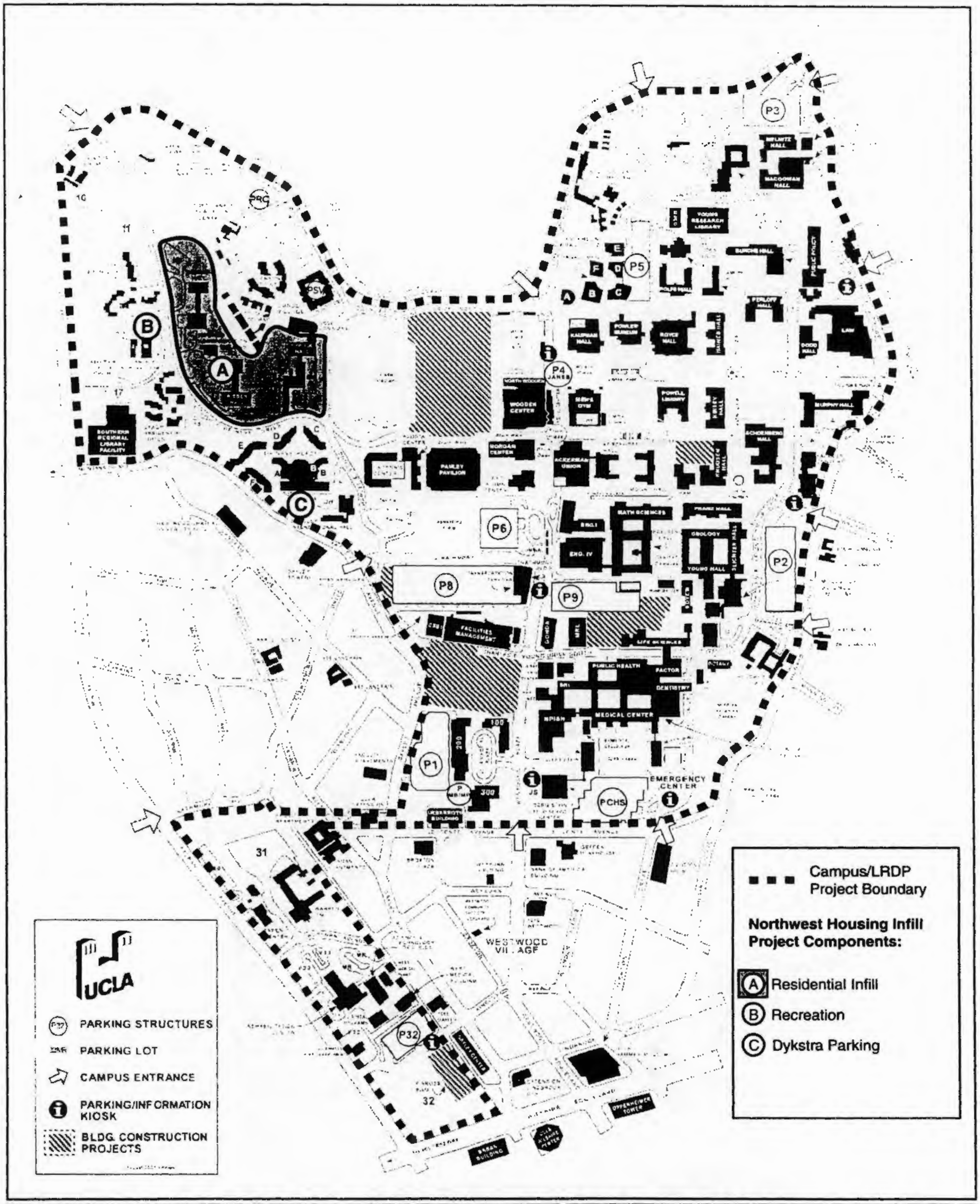


SOURCE: EIP Associates

10328-07

EIP

FIGURE 1
Regional Map
UCLA



Not to Scale

SOURCE: EIP Associates

10328-07

EIP

FIGURE 2
Project Site

UCLA

ENVIRONMENTAL CHECKLIST FORM

(Initial Study/Notice of Preparation)

UNIVERSITY OF CALIFORNIA **DATE:** March 20, 2002

CAMPUS: Los Angeles

I. PROJECT INFORMATION

1. Project title:

UCLA 2002 Long Range Development Plan

2. Lead agency name and address:

The Regents of the University of California
1111 Franklin Street, 12th Floor
Oakland, California 94607

3. Contact person and phone number:

Tova Lelah
Assistant Director
University of California, Los Angeles
Capital Programs, Environmental Planning
1060 Veteran Avenue
Los Angeles, CA 90095-1365
(310) 206-5482

4. Project location:

University of California, Los Angeles
Los Angeles, California 90095
Refer to Figures 1 and 2

5. Project sponsor's name and address:

University of California, Los Angeles (UCLA)
Capital Programs, Environmental Planning
1060 Veteran Avenue
Los Angeles, CA 90095-1365

6. Custodian of the administrative record for this Project:

Refer to Section I, Item 3 (above).

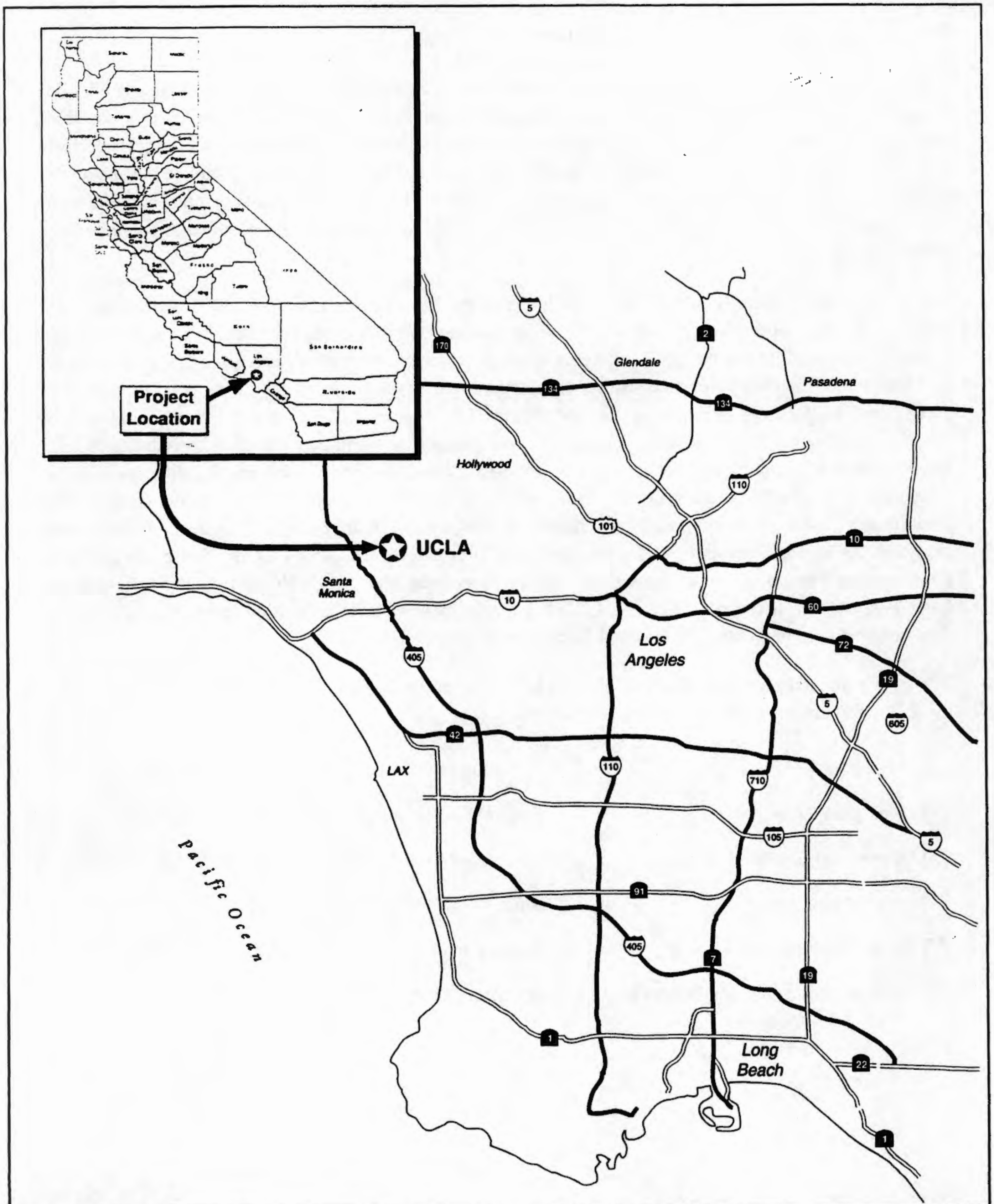
Northwest Housing Infill Project

UCLA also proposes to construct the Northwest Housing Infill Project, consisting of approximately 550,000 gross square feet of the remaining development allocation under the LRDP in the Northwest Zone of the campus. The proposed project would include: (1) up to 2,000 beds of undergraduate student housing in three or more buildings in three areas adjacent to existing housing facilities; (2) a parking facility south of Dykstra Hall to provide approximately 299 parking spaces, including 233 parking spaces to replace those removed by the project in various areas of the project site, and 66 new spaces; (3) a recreation facility with a recreation building, 25-meter pool, and passive outdoor recreation space on a site between the Hitch and Saxon Residential Suites, just north of the Ornamental Horticulture Buildings; and (4) the reconfiguration of the ground floors of three nearby residential halls (i.e., Sproul, Hedrick, and Reiber) to accommodate support services (e.g., mailrooms, food facilities, administrative offices) for the existing and proposed residence halls.

The Northwest Housing Infill Project Environmental Impact Report ("Northwest Housing Infill Project EIR") will provide a project-specific environmental analysis as Volume 2 of the 2002 LRDP EIR. The analysis of the proposed project would build upon the broader analysis of environmental impacts resulting from implementation of the 2002 LRDP, which will be addressed in Volume 1 of the LRDP EIR, as described above. The organization of the environmental analysis for the Northwest Housing Infill Project EIR will avoid repetition of detailed information and analysis provided in Volume 1, such as general background and setting information for environmental topic areas, the regulatory context, overall growth-related issues (including growth-inducing impacts), issues for which there is no additional information that would require a new or different analysis, cumulative impacts, and broad campus planning alternatives. Instead, the analysis that will be presented in Volume 2 will reflect more detailed information available regarding the Northwest Housing Infill Project and the project site, as compared to the broader, planning level information known about the campus as a whole. Therefore, Volume 2 will only provide detailed analysis for those resource areas for which additional analysis will be necessary to assess the proposed project; Volume 2 will summarize and incorporate by reference the relevant analysis of each resource areas that has been deemed to have been adequately addressed in Volume 1. In addition, each summarized resource area discussion will include a discussion of why the analysis provided in Volume 1 is adequate for the Northwest Housing Infill Project. Volume 2 will also include a project-specific alternatives analysis.

The issue areas for which additional analysis will be provided in Volume 2 of the EIR include aesthetics, air quality, biological resources, geology and soils, hazards and hazardous materials, noise, recreation, and transportation/traffic. For those specific impacts associated with the Northwest Housing Infill Project that are adequately analyzed in Volume I of the LRDP EIR, a specific disclosure of this fact is provided in the Initial Study; otherwise, the scope of analysis that will be provided in Volume 2 is identified.

This Initial Study has been prepared to identify the potential environmental issues that will be addressed in the EIR for the UCLA 2002 LRDP, including the proposed Northwest Housing Infill Project, in accordance with the California Environmental Quality Act (CEQA) of 1970, as



0 1 2 4 Scale In Miles

SOURCE: EIP Associates

10328-07

FIGURE 1
Regional Map

UCLA

III. PURPOSE OF THE INITIAL STUDY

Section 21080.09(b) of CEQA requires that the approval of a campus Long Range Development Plan be supported by an EIR. Accordingly, the University is preparing an EIR in compliance with this requirement. Therefore, as identified in Section 15063(c) of the CEQA Guidelines, the purpose of this initial study checklist is to: (1) inform responsible agencies and the public of the nature of the proposed project and its location, (2) identify impacts that will clearly be less than significant and therefore will not be discussed in the EIR, and (3) provide a general description of the topics intended to be addressed in the EIR.

This initial study generally utilizes the checklist set forth in Appendix G of the CEQA guidelines, and indicates for each of the environmental topic areas addressed in that checklist whether the topic will be, or will not be, analyzed in the EIR. Impacts for which no additional analysis is required include impacts that clearly will not result from construction or operation of the project, as well as impacts that will clearly be less than significant under CEQA criteria. The impacts to be analyzed include impacts that may be significant and unavoidable, impacts that are potentially significant but may be reduced to less than significant levels through the adoption of mitigation measures, impacts for which further analysis is necessary or desirable before a determination of significance can be made, and less than significant impacts that the University intends to include in the document to provide a more comprehensive analysis. As appropriate, the analysis will include a program-level analysis for the entire Long Range Development Plan, a project-level analysis for the Northwest Housing Infill Project, and cumulative-level analysis for potential effects of LRDP implementation combined with known and reasonably foreseeable future growth on campus and in the surrounding area.

The environmental factors checked below will be addressed in the EIR, as described in greater detail in the following discussions:

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

V. EVALUATION OF ENVIRONMENTAL IMPACTS:

A. All answers take account of the whole action involved, including beneficial, direct, indirect, construction-related, operational, and cumulative impacts.

B. A list of references used in the preparation of this Initial Study is included in Section VI of this document.

C. Appendix G of the CEQA Guidelines provides only a suggested format to use when preparing an Initial Study. UCLA has adopted a slightly different format with respect to the response column headings (refer to the definitions provided below), while still addressing the Appendix G checklist questions that are relevant to each environmental issue area.

Response Column Heading Definitions

As stated above, lead agencies are free to use different formats in the evaluation of environmental impacts. This Initial Study serves to identify the potential environmental impacts that will be addressed in the EIR for the proposed project. Thus, this document has been modified from the standard format to a two-column format as follows:

A. ***Impact to be Analyzed*** applies to those environmental issues, which may or may not be significant, that will be addressed in the Environmental Impact Report. As appropriate, the analysis will include a program level analysis for the entire 2002 LRDP, a project-level analysis for the Northwest Housing Infill Project, and a cumulative-level analysis for potential effects of LRDP implementation combined with known and reasonably foreseeable future growth in the surrounding area.

B. ***No Additional Analysis required*** applies where the proposed LRDP implementation, including the Northwest Housing Infill Project, would have no effect on the particular environmental issue, and no additional analysis, beyond that provided in this Initial Study, is warranted or required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐

The UCLA 2002 LRDP would continue to implement development on the campus within the level previously approved under the 1990 LRDP. However, because such development could occur on previously undeveloped sites, or in or near areas characterized by lower development intensities, Volume 1 of the LRDP EIR will analyze the potential effects of future development on the general character of those settings, as well as the components of visual settings, such as mature landscaping, and the potential for visual incongruity between proposed campus uses and adjacent land uses in the City of Los Angeles.

Additionally, while the Westwood Community Plan component of the Los Angeles City General Plan Framework Element designates a portion of Wilshire Boulevard as a scenic corridor, the corridor does not extend to the Wilshire Boulevard frontage of UCLA (between Veteran Avenue and Gayley Avenue). The designated corridor terminates at approximately Tiverton Avenue, and no significant viewsheds have been identified from the Wilshire Corridor to the Southwest zone of the campus. The campus, however, recognizes that portions of the Southwest zone are visually associated with the Wilshire Corridor; therefore, Volume 1 of the EIR will also evaluate visual consistency between neighboring uses and potential campus development along Wilshire Boulevard.

Volume 2 of the EIR would provide a project-specific analysis of impacts to visual character that could result from implementation of the Northwest Housing Infill Project. This analysis would include the character, form, height, and massing of proposed campus structures and landscape elements in relation to on-campus and off-campus neighboring uses. Volume 2 will also address short-term impacts to visual character that could result from construction activities associated with implementation of the Northwest Housing Infill Project.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☒	☐

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 headlights from additional vehicular traffic. The EIR will address whether these new sources of light or glare could affect day or nighttime views, or adjacent, sensitive land uses. Volume 2 of the EIR will also address the potential for project-specific increases in light and glare associated with implementation of the proposed Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required
3. **AIR QUALITY** — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:		
a) **Conflict with or obstruct implementation of the applicable air quality plan?**	☒	☐

Additional on-campus development under the 2002 LRDP would result in short- and long-term emission of criteria air pollutants from mobile and stationary sources. Those emissions would contribute to the non-attainment status of the South Coast Air Basin (SCAB). Volume 1 of the EIR will analyze whether implementation of the 2002 LRDP would conflict with or obstruct implementation of the 1997 Air Quality Management Plan (AQMP), which outlines emission control strategies and programs designed to bring the SCAB into attainment or maintain existing attainment with the State and Federal ozone, carbon monoxide, nitrogen dioxide, and particulate matter standards. Volume 2 of the EIR will evaluate the potential for project-specific construction and operational impacts—both mobile and stationary—to result from development of the proposed Northwest Housing Infill Project.

b) **Violate any air quality standard or contribute substantially to an existing or projected air quality violation?**	☒	☐

The UCLA campus is located in the South Coast Air Basin, a non-attainment zone for ozone, carbon monoxide, nitrogen dioxide, and particulate matter. Implementation of the 2002 LRDP would result in additional on-campus development, which would result in the emission of criteria pollutants from stationary and mobile sources, which would contribute to existing exceedances of federal and state standards for criteria pollutants. Volume 1 of the EIR will characterize existing air quality in the vicinity of the campus, quantify potential short-term and long-term mobile- and stationary-source impacts that would result from the implementation of the 2002 LRDP, and identify potential mitigation measures to reduce impacts to the extent feasible. Volume 2 of the EIR will evaluate the potential air quality impacts related to construction and operation of the proposed Northwest Housing Infill Project.

c) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**	☒	☐

Additional development on the UCLA campus, combined with known and reasonably foreseeable growth in the region, would result in new sources of emissions within the SCAB. The 1997 AQMP was prepared to accommodate growth while improving regional air quality. Development under the 2002 LRDP will be compared to the AQMP performance standards to determine whether the new

	Impact to be Analyzed in EIR	No Additional Analysis Required

opportunities for protected species such as migratory birds, as well as common wildlife that are associated with highly developed areas.

The vegetation in the vicinity of the Northwest Housing Infill Project includes grasses, trees, shrubs, and flowers planted on the hillsides between existing housing facilities. Volume 2 of the EIR will include an analysis of potential habitat removal by vegetation type, including mature trees proposed for relocation and/or removal, and will evaluate potential habitat loss and fragmentation, as well as potential changes in species presence, abundance, and diversity. This analysis will primarily be informed by the data provided in Volume 1 of the EIR, as well as by observational surveys conducted specifically for the Northwest Housing Infill Project site.

	Impact to be Analyzed in EIR	No Additional Analysis Required
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒

Stone Canyon Creek is a portion of the University drainage system that runs south of Corinne A. Seeds University Elementary School, north of the Anderson Graduate School of Management, and west of Royce Drive, finally reaching an underground box culvert in the vicinity of the Collins Center of the Anderson Graduate School of Management. Stone Canyon Creek is not characterized by any officially designated riparian communities, such as Foothill Riparian, Oak Woodland, or Sycamore Woodland, and is the only area on campus where the potential exists for these habitat types to occur: no other area on campus is characterized as riparian habitat. Further, the 2002 LRDP does not propose any long-term or permanent alternations to the creek. Therefore, no effects upon the creek are anticipated, and no additional analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒

While it is not anticipated that Stone Canyon Creek would 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), the 2002 LRDP does not propose any long-term or permanent alterations to the creek. Additionally, no marshes, vernal pools or protected areas lie within the LRDP area. Therefore, no effects to wetlands are anticipated, and no additional analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required

substantially more severe environmental impacts, because no historic structures would be altered by implementation of the project. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☒	☐

The 1990 LRDP Final EIR stated (page IV.E-2) that no evidence of any archaeological remains has been discovered on campus; additionally, no resources have been discovered since 1990, and the 1990 LRDP Mitigation Monitoring Program 2000 Status Report indicated that no resources have been discovered during recent excavations for new development projects. However, a potential for discovery of such resources during excavations for future projects still exists. Because development under the 2002 LRDP could also potentially affect currently unknown archaeological resources, the campus will consult with the Native American Heritage Commission, as well as appropriate literature, and Volume 1 of the EIR will analyze the potential for additional development on the campus to result in damage to unidentified archaeological resources.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐

A literature survey performed for the LRDP indicated that no fossils have been recovered in rocks within the campus boundaries. However, as with archaeological resources, a potential exists for the discovery of paleontological resources during excavations for future projects. Therefore, Volume 1 of the EIR for the 2002 LRDP will include an evaluation of the potential for the rock units that underlie the campus to contain paleontological resources, and the potential for development under the 2002 LRDP to result in damage to significant or potentially significant paleontological resources.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required

seismic-related ground failure, including liquefaction, for the campus as a whole and identify potential areas of risk. Volume 2 of the EIR will include a site-specific assessment to determine the potential for seismic-related ground failure, including liquefaction, for the Northwest Housing Infill Project.

iv) **Landslides?**	☒	☐

Volume 1 of the EIR will use CDMG-published seismic hazard maps to evaluate the risk of landsliding for the campus as a whole and identify potential areas of risk. Volume 2 of the EIR will include a site-specific assessment to determine the potential for landslides for the Northwest Housing Infill Project.

b) **Result in substantial soil erosion or the loss of topsoil?**	☒	☐

As described in Response 2.a, above, no prime topsoil is known to exist on campus. Therefore, Volumes 1 and 2 of the EIR will only examine the potential for erosion hazards to occur as a result of development of the 2002 LRDP, which includes the Northwest Housing Infill Project.

c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**	☒	☐

Refer to Response 6.a.iii, above, for a discussion of liquefaction. Because soil stability and other properties must be evaluated on a site-specific basis, and because the 2002 LRDP is a general land use plan intended to guide the pattern of development on campus, and does not articulate specific developments other than the Northwest Housing Infill Project, Volume 1 of the EIR will generally address the potential risks associated with soil characteristics of the campus. Volume 2 of the EIR will address site-specific soil conditions and evaluate potential impacts of these conditions with respect to the Northwest Housing Infill Project.

d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**	☒	☐

Refer to Response 6.c, above. Volume 2 of the EIR will include a site-specific evaluation of the characteristics of the soils underlying the proposed Northwest Housing Infill Project.

e) **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 UCLA campus is provided sanitary sewer service by the Sanitation Districts of Los Angeles

	Impact to be Analyzed in EIR	No Additional Analysis Required
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐

Some campus facilities are included on lists and databases compiled by local, State, and Federal agencies pursuant to Government Code Section 65962.5. The majority of these sites appear to be registered underground storage tanks and similar facilities, rather than contaminated sites. However, an analysis of the hazards posed by development on a listed site must be site-specific, and the 2002 LRDP is a general land use plan intended to guide the pattern of development on campus and does not articulate specific developments other than the Northwest Housing Infill Project. Therefore, Volume 1 of the EIR will discuss the presence of such sites on the campus as a whole, and the potential risks associated with development on these sites. Volume 2 of the EIR will evaluate whether the proposed Northwest Housing Infill Project would be developed on a listed site, and the degree to which such a condition, if it exists, would represent a significant hazard to the public or the environment.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☒

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. No additional analysis is required.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☒	☐

The Medical Center complex currently operates a heliport for emergency transport of critically ill patients, and as previously analyzed in the 1998 Academic Health Center Facilities Reconstruction Project Final EIR, will be relocated to the new medical center that is now under construction. While the heliport is currently in use, Volume 1 of the EIR will evaluate the potential safety hazard of the heliport, at both locations, to additional developments proposed under the 2002 LRDP. Volume 2 of the EIR will evaluate the potential safety hazard posed by both locations of the heliport to the occupants of the proposed Northwest Housing Infill Project.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☒	☐

Construction and operation activities associated with development under the 2002 LRDP could potentially affect emergency response or evacuation plans. Volume 1 of the EIR will, therefore, evaluate whether implementation of the 2002 LRDP would impair implementation of, or physically

	Impact to be Analyzed in EIR	No Additional Analysis Required

on groundwater supplies, and will examine whether an increase in impermeable surfaces and/or excavation during construction would degrade groundwater quality or quantity.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☒	☐

Implementation of the 2002 LRDP would not result in alterations to a stream or river course. As described above in Response 4.b, the 2002 LRDP does not propose and would not result in permanent or long-term alterations of Stone Canyon Creek, the only feature on campus that could potentially be characterized as a stream. However, construction activities associates with implementation of the 2002 LRDP could result in alterations of drainage patters that could result in erosion or siltation. Additionally, future development could alter drainage patterns at the site of new buildings, which could result in an increase in runoff and the potential for increased erosion or siltation. Volume 1 of the EIR will evaluate potential impacts related to increased erosion or siltation.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☒	☐

Implementation of the 2002 LRDP would not result in alterations to a stream or river course. As described above in Response 4.b, the 2002 LRDP does not propose and would not result in permanent or long-term alterations of Stone Canyon Creek, the only feature on campus that could potentially be characterized as a stream. Volume 1 of the EIR will address broad, campus-wide drainage patterns and whether a potential increase in the rate or amount of surface runoff would result in flooding on or off site.

	Impact to be Analyzed in EIR	No Additional Analysis Required

Northwest Zone of the campus (Zone C), and additional development of residential uses is anticipated to occur there. Therefore, because no housing is anticipated to be placed in a 100-year flood, no further analysis of this issue is required. (Refer to Figure 3)

Additional information regarding the Northwest Housing Infill Project would not result in new, different, or substantially more severe environmental impacts; therefore, no further analysis of this issue is required in Volume 2.

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☒	☐

The 2002 LRDP is a general land use plan intended to guide the pattern of development on campus and does not articulate specific projects or structures other than those proposed as part of the Northwest Housing Infill Project. As described above in response 8.g., potential development, including the Northwest Housing Infill Project, would be constructed within a 100-year flood plain. Volume 1 of the EIR will, therefore include a discussion of flood zone designations on campus, and the potential effects of development in 100-year flood zones with respect to the impedance or redirection of flood flows.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☒	☐

The Stone Canyon Reservoir, located north of the campus across Sunset Boulevard, is operated by the City of Los Angeles Department of Water and Power (DWP). According to the DWP, the dam structures associated with the reservoir are in good condition. However, a catastrophic failure of this structure could result in flooding on the UCLA campus. Volume 1 of the EIR will evaluate the potential for people or structures to be subject to flooding as result of such a failure.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required
j) Inundation by seiche, tsunami, or mudflow?	☒	☐

The UCLA campus is located in an inland area and at a sufficient elevation not to be subject to tsunamis. No large, open bodies of water that would represent a substantial seiche risk are located on campus. Stone Canyon Reservoir, as discussed above in Response 8.i, is located north of the campus. However, according the Los Angeles Department of Water and Power (DWP: Brodt 2002), no seiche at a DWP facility has ever been recorded, even during the 1994 Northridge earthquake, which exhibited strong, north-south pulsing motion at the Stone Canyon Reservoir. The DWP does not consider seiching to be a significant hazard, and has stated that even if such an event occurred, the amount of water released would be trivial, and would not constitute any significant portion of a reservoir's volume. Therefore, no additional analysis of seiching is required.

Portions of the campus may also be potentially subject to mudflows; therefore Volume 1 of the EIR will evaluate the potential for inundation of portions of the campus by mudflows, and Volume 2 of the EIR will address the potential for inundation by mudflow of the proposed Northwest Housing Infill Project.

9. LAND USE AND PLANNING — Would the project:

a) Physically divide an established community?	☐	☒

The community surrounding the UCLA campus is fully developed. The LRDP is the campus land use plan that guides future development within the existing campus boundaries. Development outside the campus boundaries would not be governed by the LRDP. Therefore no incursion into or division of the surrounding residential communities would occur from implementation of the LRDP and no additional analysis is required.

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

The University of California is constitutionally exempt from local zoning and land use plan/element requirements. Therefore, the land use policy analysis will focus upon potential conflicts between campus uses that could potentially be developed under the 2002 LRDP, and existing on-campus and neighboring off-campus uses, as well as compliance with applicable 2002 LRDP policies and square footage allocations for the Northwest zone of the campus.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis

	Impact to be Analyzed in EIR	No Additional Analysis Required

Infill Project.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? ☒ ☐

Construction activities could result in generation of excessive groundborne vibration or groundborne noise levels. Volume 1 of the EIR will evaluate the potential impacts of construction activities associated with implementation of the 2002 LRDP. Volume 2 will provide a project-level analysis of groundborne vibration or noise levels associated specifically with implementation of the Northwest Housing Infill Project.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? ☒ ☐

Refer to Response 11.a, above.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? ☒ ☐

Refer to Response 11.a, above.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ☐ ☒

The UCLA campus is not located within an airport land use plan, or within two miles of a public airport or public use airport. No additional analysis is required.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? ☒ ☐

The UCLA campus is not located within the vicinity of a private airstrip. However, the Medical Center complex currently operates a heliport for emergency transport of critically ill patients, and as previously analyzed in the 1998 Academic Health Center Facilities Reconstruction Project Final EIR, will be relocated to the new medical center that is now under construction. Volume 1 of the EIR will, therefore, identify existing and future helicopter noise levels and determine whether additional people would be subject to excessive noise levels from helicopter operations. Additionally, Volume 2 of the EIR will evaluate the potential effects of existing and future helicopter noise upon the students that would reside in the proposed Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required

13. PUBLIC SERVICES

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

	Impact to be Analyzed in EIR	No Additional Analysis Required
i) Fire protection?	☒	☐

Volume 1 of the EIR will evaluate whether implementation of the 2002 LRDP would increase demand for fire protection services and compare the potential increase in demand with existing and planned equipment and staffing levels. The EIR will also evaluate the potential impacts of new, expanded, or altered facilities, if they are required to meet an increase in demand.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required
ii) Police protection?	☒	☐

Police protection services for the UCLA campus are provided by the University of California Police Department and the Los Angeles Police Department (LAPD). Volume 1 of the EIR will evaluate whether implementation of the 2002 LRDP would increase the demand for police protection and compare the potential increase in demand to existing and planned equipment and staffing levels. The EIR will also evaluate the potential impacts of new, expanded, or altered facilities, if they are required to meet an increase in demand.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required
iii) Schools?	☒	☐

Increased student enrollment, combined with associated increases in faculty and staff, may increase the number of school-age children that would potentially enroll in local schools. Volume 1 of the EIR will evaluate potential effects of increased enrollment on the capacity of

	Impact to be Analyzed in EIR	No Additional Analysis Required

capacity of existing or planned neighborhood, community, and regional parks. The EIR will also evaluate the potential impacts of new, expanded, or altered facilities, if they are required to meet an increase in demand. The discussion of recreational impacts will be provided in the Public Services section of the LRDP EIR.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

	Impact to be Analyzed in EIR	No Additional Analysis Required
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☒	☐

The 2002 LRDP is a general land use plan intended to guide the pattern of development on campus and does not articulate specific projects or structures other than those proposed as part of the Northwest Housing Infill Project. However, additional recreational uses may be developed as part of the implementation of the 2002 LRDP; therefore, Volume 1 of the EIR will evaluate the potential effects of recreational uses within the context of the effects of general campus development.

Additionally, because the Northwest Housing Infill Project includes a recreation component that would provide additional recreational opportunities, Volume 2 of the EIR will evaluate the potential environmental effects of such facilities as part of the analysis for the project as a whole. The discussion of recreational impacts will be provided in the Public Services section of the LRDP EIR.

	Impact to be Analyzed in EIR	No Additional Analysis Required
c) Does the project affect existing recreational opportunities?	☐	☒

As described above in Responses 13.a.iv, 14.a, and 14.b, the proposed Northwest Housing Infill Project would include additional recreational opportunities, and is not anticipated to reduce, eliminate, or otherwise affect existing recreational opportunities. Therefore, no further analysis is required.

15. TRANSPORTATION/ TRAFFIC — Would the project:

	Impact to be Analyzed in EIR	No Additional Analysis Required
a) 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 on roads, or congestion at intersections)?	☒	☐

Potential increases in traffic that could result from implementation of the proposed 2002 LRDP would maintain the adopted trip limits articulated in the Trip Mitigation Monitoring Agreement between UCLA and the City of Los Angeles. Volume 1 of the EIR will include an analysis of

	Impact to be Analyzed in EIR	No Additional Analysis Required

with an emergency access route. Volume 2 of the EIR will evaluate the specific potential for construction activities associated with, or operation of, the Northwest Housing Infill Project to interfere with an emergency access route.

f) Result in inadequate parking capacity?	☒	☐

Volume 1 of the EIR will evaluate the adequacy of the parking on campus, based upon existing and projected parking demand. The EIR will also include an analysis of the campus transportation demand management (TDM) program, including new TDM measures that may be considered under the 2002 LRDP to address trip and/or parking demand reduction strategies. Volume 2 of the EIR will provide a project-level parking analysis for the Northwest Housing Infill project.

g) Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☒	☐

The proposed 2002 LRDP will describe alternative transportation modes and Volume 1 of the EIR will analyze whether the implementation of the 2002 LRDP would conflict with existing LRDP policies supporting alternative transportation. Volume 2 of the EIR will also provide this analysis on a project-level basis for the Northwest Housing Infill Project.

16. UTILITIES/SERVICE SYSTEMS/ENERGY — Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☒	☐

Implementation of the proposed 2002 LRDP could result in increased wastewater generation. Volume 1 of the EIR will, therefore, characterize current waste discharge volumes and wastewater treatment capacity, and evaluate whether the implementation of the 2002 LRDP would, in the context of any planned increases in water treatment capacity increases, result in a violation of applicable standards or requirements.

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐

Implementation of the proposed 2002 LRDP would increase the amount of on-campus building space and the on-campus residential population, which would result in an increase in water usage, as well

	Impact to be Analyzed in EIR	No Additional Analysis Required
e) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**	☒	☐

Refer to Response 16.b, above.

f) **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**	☒	☐

Implementation of the proposed 2002 LRDP could result in an increase in campus solid waste generation. Volume 1 of the EIR will, therefore, evaluate whether existing and planned landfill capacity would be sufficient to accommodate the potential increases in solid waste generation that would result from implementation of the 2002 LRDP. The EIR will also evaluate the potential impacts of new, expanded, or altered facilities, if they are required to meet an increase in demand.

Volume 2 of the EIR will evaluate whether sufficient landfill capacity exists to accommodate the volume of solid waste that the Northwest Housing Infill Project is anticipated to generate.

g) **Comply with applicable federal, state, and local statutes and regulations related to solid waste?**	☒	☐

Refer to Response 16.f, above. Volume 1 of the EIR will also evaluate the impact of implementation of the 2002 LRDP on campus compliance with applicable statutes and regulations related to solid waste, including the State of California Assembly Bill 939 (Integrated Waste Management Act).

The analysis of this issue will be fully addressed in Volume 1 of the EIR, and no additional information regarding the Northwest Housing Infill Project would result in new, different, or substantially more severe environmental impacts. Therefore, Volume 2 will rely upon the analysis provided in Volume 1 to adequately address this issue only when it applies to the Northwest Housing Infill Project.

h) **Result in wasteful, inefficient or unnecessary consumption of energy?**	☒	☐

Development of additional space would result in the consumption of additional energy, including electricity and natural gas. Volume 1 of the EIR will quantify the potential increase in campus-related energy usage and determine whether implementation of the LRDP would result in the wasteful, inefficient, or unnecessary consumption of energy, as well as the electrical generation capacity of the Campus Energy Systems (Cogeneration) Facility and the conveyance systems for natural gas. Volume 1 of the EIR will also include assessments of the energy requirements of the implementation of the 2002 LRDP, the effects of the 2002 LRDP on energy resources and local and regional energy supplies, and the compliance of the 2002 LRDP with campus and applicable State

	Impact to be Analyzed in EIR	No Additional Analysis Required
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐

As indicated in the above discussions, implementation of the proposed 2002 LRDP has the potential to result in significant impacts. Volume 1 of the EIR will evaluate whether any of those impacts have the potential to result in substantial adverse effects on human beings.

VI. REFERENCES

California Department of Conservation, Division of Mines and Geology. 1991. Geologic Map of California. Compiled by Charles W. Jennings. 1977, fourth printing 1991.

———. 1994. *Update of Mineral Land Classification of Portland Cement Concrete Aggregate in Ventura, Los Angeles, and Orange Counties, California: Part II—Los Angeles County.* The Resources Agency, California.

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Dibblee, T.W. Jr. 1991. Geologic Map of the Beverly Hills and Van Nuys (South ½) Quadrangles. Los Angeles County, California, Division of Mines and Geology, Dibblee Geological Foundation Map DF#-31, map scale 1:24,000

Foster, Brent. 2001. Personal Communication with the United States Department of Conservation, Division of Mines and Geology, Los Angeles, December.

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U.S. Department of the Interior. 1983. Geology of the Los Angeles Basin, California: An Introduction. Geological Survey Professional Paper 420-A. 1965, third printing 1983.

Scoping

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BY:

NOTICE

Community Information and EIR Scoping Meeting
UCLA Long Range Development Plan and Northwest Housing Infill Project

April 6, 2002, 8:30 a.m. - 12:30 p.m.
Morgan Center, Press Room
UCLA Campus

The University of California, Los Angeles proposes to update the campus 1990 Long Range Development Plan (LRDP) to address anticipated growth in student enrollment of 4,000 full time equivalent students by the year 2010. This increase would exceed the student enrollment assumptions in the adopted 1990 LRDP. The update will essentially extend the 1990 LRDP from the original 2005 horizon year to 2010 by maintaining the overall development square footage, parking and trip generation limits of the Plan while accommodating an increased level of enrollment and associated population growth.

Planning efforts to accommodate increased student enrollment have led to an accompanying proposal to construct the Northwest Housing Infill Project to address the housing needs of an expanded student enrollment. The proposed housing project includes up to 2,000 undergraduate student beds; a parking facility to provide approximately 299 parking spaces (233 replacement and 66 new); and a recreation facility, 25-meter pool and low-intensity outdoor recreation space in the Northwest zone of campus adjacent to existing on-campus residence halls.

In accordance with the California Environmental Quality Act, potential environmental effects of both the proposed 2002 update of the LRDP ("2002 LRDP") and the Northwest Housing Infill Project will be analyzed in a single Environmental Impact Report (EIR). The EIR will include a program-level analysis for the implementation of the 2002 LRDP and a project-level analysis for implementation of the proposed Northwest Housing Infill Project element of the 2002 LRDP.

A Community Information and EIR Scoping Meeting will be held on April 6, 2002, from 8:30 a.m. to 12:30 p.m. at the Morgan Center, Press Room on the UCLA campus. Courtesy parking tags for parking lots adjacent to the Morgan Center will be provided at the Westwood Plaza parking kiosk. All interested agencies, associations and individuals are invited to attend to receive information about the proposed LRDP update and Northwest Housing Infill Project and to assist UCLA in identifying relevant environmental issues that should be addressed in the EIR.

A map showing meeting and parking locations is attached, as well as the proposed agenda for the meeting.

Those unable to attend the meeting who wish to be placed on a mailing list to receive notice of future meetings and the release of the EIR may send their name and address to:

UCLA Capital Programs
Campus and Environmental Planning
1060 Veteran Avenue
Los Angeles, CA 90095-1365
Fax: (310) 206-1510

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse

Gray Davis
GOVERNOR

Notice of Preparation

Tal Finney
INTERIM DIRECTOR

March 21, 2002

To: Reviewing Agencies

Re: UCLA 2002 Long Range Development Plan (LRDP) and Northwest Housing Infill Project
SCH# 2002031115

Attached for your review and comment is the Notice of Preparation (NOP) for the UCLA 2002 Long Range Development Plan (LRDP) and Northwest Housing Infill Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Tova Lelah
University of California, Los Angeles
1060 Verteran Avenue, CPB 3rd Floor
Los Angeles, CA 90095

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

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

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# **2002031115**
Project Title UCLA 2002 Long Range Development Plan (LRDP) and Northwest Housing Infill Project
Lead Agency University of California, Los Angeles

Type **NOP** Notice of Preparation

Description The University of California, Los Angeles proposes to update the campus' Long Range Development Plan (LRDP), previously adopted by the Regents of the University of California in November 1990. The 2002 LRDP will be undertaken to address anticipated growth in enrollment of approximately 4,000 full-time-equivalent students by the year 2010. Planning efforts underway to update the LRDP have converged with planning to address the housing needs of existing and anticipated enrollment. UCLA now proposes to construct additional on-campus student housing in the Northwest Housing Infill Project (NW Hsg). The NW Hsg project would include up to 2,000 beds of undergraduate student housing in three or more buildings, a parking facility to provide approximately 299 spaces (approximately 233 replacement and 66 new); a recreation facility and reconfiguration of the ground floors of three existing residence halls. The project would result in the construction of up to 550,000 gross square feet (gsf) of net new development. The 1990 LRDP FEIR previously analyzed the environmental consquences of 3.71 million gsf of new development between 1990 and 2005. The 2002 LRDP will evaluate the anticipated enrollment increase and the completion, by approximately 2010, of the previously analyzed development program, of whcih approximately 1.9 million gsf remains. In this regard, the LRDP will consider the potential environmental effects of the development of approximately 1.9 million gsf of space for academic, research, housing and other uses on campus. It is envisioned that the EIR will include a program level analysis for implementation of the 2002 LRDP; and a project level analysis for implementation of proposed NW Hsg Project element of the 2002 LRDP; and a project level analysis for implementation of the proposed NW Hsg Project element of the 2002 LRDP. Furthermore, the 2002 LRDP EIR will incorporate the 1990 LRDP mitigation measures as appropriate, including the limits on the campus overall parking inventory and vehicular trip generation. By so doing, the 2002 LRDP will extend 1990 LRDP from the original 2005 horizon year to 2010 by maintaining the overall development square footage, parking and trip generation limits of the plan while accommodating an increased level of enrollment and associated population growth.

Document Details Report
State Clearinghouse Data Base

Lead Agency Contact

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Agency University of California, Los Angeles
Phone 310-206-5482 **Fax**
email
Address 1060 Verteran Avenue, CPB 3rd Floor

City Los Angeles **State** CA **Zip** 90095

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets Westwood Plaza/Lee
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways I-405
Airports
Railways
Waterways
Schools
Land Use Campus

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wildlife; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Fish and Game, Region 5; Native American Heritage Commission; State Lands Commission; Caltrans, District 7; Department of Housing and Community Development; California Highway Patrol; Regional Water Quality Control Board, Region 4

Date Received 03/21/2002 **Start of Review** 03/21/2002 **End of Review** 04/19/2002

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

NOP Distribution List

County: Los Angeles

SCH# 2002031115

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Bill Curry
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [x] **Dept. of Conservation**
  Roseanne Taylor
- [ ] **Dept. of Forestry & Fire Protection**
  Allen Robertson
- [x] **Office of Historic Preservation**
  Hans Kreutzberg
- [x] **Dept of Parks & Recreation**
  B. Noah Tilghman
  Environmental Stewardship Section
- [ ] **Reclamation Board**
  Pam Bruner
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [ ] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Health & Welfare

- [ ] **Health & Welfare**
  Wayne Hubbard
  Dept. of Health/Drinking Water

Food & Agriculture

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture

Fish and Game

- [ ] **Dept. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Dept. of Fish & Game 1**
  Donald Koch
  Region 1
- [ ] **Dept. of Fish & Game 2**
  Banky Curtis
  Region 2
- [ ] **Dept. of Fish & Game 3**
  Robert Floerke
  Region 3
- [ ] **Dept. of Fish & Game 4**
  William Laudermilk
  Region 4
- [x] **Dept. of Fish & Game 5**
  Don Chadwick
  Region 5, Habitat Conservation Program
- [ ] **Dept. of Fish & Game 6**
  Gabrina Gatchel
  Region 6, Habitat Conservation Program
- [ ] **Dept. of Fish & Game 6 I/M**
  Tammy Allen
  Region 6, Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  Tom Napoli
  Marine Region

Independent Commissions

- [ ] **California Energy Commission**
  Environmental Office
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Ken Lewis
- [x] **State Lands Commission**
  Betty Silva
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse Planner
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Lyn Barnett
- [ ] **Office of Emergency Services**
  John Rowden, Manager
- [ ] **Delta Protection Commission**
  Debby Eddy
- [ ] **Santa Monica Mountains Conservancy**
  Paul Edelman

Dept. of Transportation

- [ ] **Dept. of Transportation 1**
  IGR/Planning
  District 1
- [ ] **Dept. of Transportation 2**
  Vicki Roe
  Local, Development Review, District 2
- [ ] **Dept. of Transportation 3**
  Jeff Pulverman
  District 3
- [ ] **Dept. of Transportation 4**
  Jean Finney
  District 4
- [ ] **Dept. of Transportation 5**
  James Kilmer
  District 5
- [ ] **Dept. of Transportation 6**
  Marc Birnbaum
  District 6
- [x] **Dept. of Transportation 7**
  Stephen J. Buswell
  District 7
- [ ] **Dept. of Transportation 8**
  Mike Sim
  District 8
- [ ] **Dept. of Transportation 9**
  Colleen O'Brien
  District 9
- [ ] **Dept. of Transportation 10**
  Chris Sayre
  District 10
- [ ] **Dept. of Transportation 11**
  Lou Salazar
  District 11
- [ ] **Dept. of Transportation 12**
  Aileen Kennedy
  District 12

Business, Trans & Housing

- [x] **Housing & Community Development**
  Cathy Creswell
  Housing Policy Division
- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [x] **California Highway Patrol**
  Lt. Julie Page
  Office of Special Projects
- [ ] **Dept. of Transportation**
  Ron Helgeson
  Caltrans - Planning
- [ ] **Dept. of General Services**
  Robert Sleppy
  Environmental Services Section

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [ ] Transportation Projects
  Kurt Karperos
- [ ] Industrial Projects
  Mike Tollstrup

- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Diane Edwards
  Division of Clean Water Programs
- [ ] **State Water Resources Con Board**
  Greg Frantz
  Division of Water Quality
- [ ] **State Water Resouces Conti Board**
  Mike Falkenstein
  Division of Water Rights
- [ ] **Dept. of Toxic Substances C**
  CEQA Tracking Center

Regional Water Quality Cont Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [x] **RWQCB 4**
  Jonathan Bishop
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, REGIONAL PLANNING
IGR/CEQA BRANCH
120 SO. SPRING ST.
LOS ANGELES, CA 90012
PHONE (213) 897-4429
FAX (213) 897-1337

Flex your power!
Be energy efficient!

March 26, 2002

Tova Lelah, Assistant Director
University of California Los Angeles
Capital Programs, Environmental Planning
1060 Veteran Avenue
Los Angeles, CA 90095-1365

Re: 2002 LRDP and Northwest Housing Infill
UCLA Project No. 948365 and 948380
Revised Notice of Preparation
IGR/CEQA No. 020375/EK
SCH No. 1989072618

Dear Ms. Lelah:

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the proposed update of the UCLA Long Range Development Plan (LRDP). We have received a Revised Notice of Preparation (NOP) environmental document, for the extension of the LRDP horizon year from 2005 to 2010 and for the inclusion of approximately 550,000 gross square feet of building for the Northwest Housing Infill. As there was no new State Clearing House (SCH) number given with the NOP, we understand that this Infill will be part of the 1.9 million additional square feet allowed under the 1990 LRDP FEIR, using the SCH number above. Please advise us if that understanding is not entirely correct.

We notice, on pages 33-35 of the environmental checklist, that traffic impacts will be considered in the forthcoming EIR. For that EIR, we request the most recent possible conditions and behavioral information be considered. We have sent a letter dated July 11, 2001, to the above address, describing what we need from a traffic study. We would supply copies of that letter, if requested.

If you have any questions regarding this comment, please refer to IGR/CEQA No. 020375/EK and contact me at (213) 897 – 4429 .

Sincerely,

STEPHEN J. BUSWELL
IGR/CEQA Program Manager, Transportation Planning Office

http://www.dfg.ca.gov
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

Flex your Power

April 17, 2002

Ms. Tova Lelah
University of Southern California, Los Angeles
1060 Veteran Avenue, CPB 3rd Floor
Los Angeles, California 90095

Dear Ms. Lelah:

Notice of Preparation for
UCLA 2002 Long Range Redevelopment Plan and
Northwestern Housing Infill Project
SCH # 2002031115

The Department of Fish and Game (Department) appreciates this opportunity to comment on the Notice of Preparation for the above-referenced project, relative to impacts to biological resources. The project proposes to update the campus' Long Range Development Plan and the construction of additional on-campus student housing in the Northwest Housing Infill Project located at the Los Angeles Campus.

To enable the Department to adequately review and comment on the proposed environmental document, we recommend the following information be evaluated and included in the document.

Impacts to Biological Resources

1. Nesting Birds – Project impacts on nesting native birds should be evaluated. The proposed project may result in removal and/or disturbance of vegetation, ground substrates and buildings and therefore has the potential to directly impact nesting native bird species.

   a. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act(MBTA) of 1918(50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA).

   b. Proposed project activities (including disturbances to native and non-native vegetation and man-made nesting substrates) should take place outside of the breeding bird season which generally runs from March 1- August 31 (as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture of kill (Fish and Game Code

Section 86).

c. If the project activities cannot feasibly avoid the breeding bird season, the Department recommends that beginning thirty days prior to the disturbance of suitable nesting habitat the project proponent should arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors). The surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys should continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work. If a protected native bird is found, the project proponent should delay all clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until August 31 or continue the surveys in order to locate any nests. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to the protection of native birds.

Impacts to Riparian Resources

1. The Department opposes the elimination of watercourses and/or their canalization or conversion to subsurface drains. All wetlands and watercourses, whether intermittent or perennial, must be retained and provided with substantial setbacks which preserve the riparian and aquatic habitat values and maintain their value to on-site and off-site wildlife populations.

   a. The Department requires a streambed agreement, pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to any direct or indirect impact (including preliminary geotechnical activities) of a lake or streambed, bank or channel or associated riparian resources. The Department's issuance of a stream bed alteration agreement is considered a project that is subject to CEQA. To facilitate our issuance of the agreement, the Department as a responsible agency under CEQA may consider the local jurisdiction's (lead agency) document for the project. To minimize additional requirements by the Department under CEQA the document should fully identify the potential impacts to any lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. Please contact Ms. Betty Courtney, Environmental Specialists III, at (661) 263-8306 to discuss this further.

Thank you for this opportunity to provide comment. Questions regarding this letter and further coordination on these issues should be directed to Mr. Scott Harris, Associate Wildlife Biologist at (818) 360-8140.

Sincerely,

Ms. Morgan Wehtje
Environmental Scientist IV

cc: Ms. Morgan Wehtje
Mr. Scott Harris
Ms. Betty Courtney
Department of Fish and Game

State Clearinghouse
Sacramento

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

April 11, 2002

Tova Lelah
University of California, Los Angeles
1060 Verteran Avenue, CPB 3rd Floor
Los Angeles, CA 90095

RE: SCH# 2002031115 – UCLA 2002 Long Range Development Plan and Northwest Housing Infill Project

Dear Ms. Lelah:

The Native American Heritage Commission has reviewed your letter regarding the above project. To adequately assess and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

✓ Contact the appropriate Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.

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

✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check.
  - A list of appropriate Native American Contacts for consultation concerning the project site and to assist in the mitigation measures.

✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5 (e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Rob Wood

Rob Wood
Environmental Specialist III
(916) 653-4040

CC: State Clearinghouse

South Coast
Air Quality Management District
21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 · http://www.aqmd.gov

April 4, 2002

Mr. Tova Lelah
Assistant Director
Campus and Environmental Planning
UCLA Capital Programs
1060 Veteran Avenue
Los Angeles, CA 90095-1365

Dear Mr. Lelah:

Revised Notice of Preparation of a Draft Environmental Impact Report For 2002 Long Range Development Plan and Northwest Housing Infill Project

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document. The AQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the Draft Environmental Impact Report (EIR).

Air Quality Analysis

The AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The AQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the AQMD's Subscription Services Department by calling (909) 396-3720.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction and operations should be considered. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the evaluation. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures be utilized during project construction and operation to minimize or eliminate significant adverse air quality impact. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the AQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additionally, AQMD's Rule 403 construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Pursuant to state CEQA Guidelines §15126.4(a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

AQMD rules and relevant air quality reports data are available by calling the AQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the AQMD's World Wide Web Homepage (http://www.aqmd.gov).

The AQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Dr. Charles Blankson, Transportation Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely

Steve Smith

Steve Smith Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development and Area Sources

SS:CB:li

SBC020328-03LI
Control Number

COUNTY OF LOS ANGELES
REGISTRAR-RECORDER/COUNTY CLERK
P.O. BOX 53592, LOS ANGELES, CALIFORNIA 90053-0592 / (562) 462-2177

CONNY B. McCORMACK
REGISTRAR-RECORDER/COUNTY CLERK

MAR 27 2002

Please resubmit enclosed document/s with necessary corrections for processing.

1. ☐ Please submit notice in appropriate form, see attached for example.
2. ☐ Original signatures are required on both notice and certificate of fee exemption when submitted.
3. ☐ A legible copy of notice/certificate of fee exemption is needed for processing.
4. ☐ Notice is incomplete, incomplete portions are in highlight for your convenience.
5. ☑ There is a $25.00 processing fee required.
6. ☐ We do not accept checks dated more than 90 days from date of issuance.
7. ☐ Please make check payable to the Los Angeles County Clerk.
8. ☐ There is a $ 1275.00/875.00 fee required to process your NOD as submitted. However, if the project was found to be de minimis, resubmit the enclosed NOD along with an original signed certificate of fee exemption and a check made payable to the Los Angeles County Clerk's Office in the amount of $25.00.
9. ☐ Please provide a actual copy of your notice for processing.
10. ☐ Check is unsigned.
11. ☐ The bulk of your notice has been held up at our office due to a lack of postage. A prepaid postage envelope in the amount of $ 10.00 must be provided within 30 days from date of this notice, if you would like for your notice to be returned.
12. ☐ There is a filing fee in the amount of $25.00 for each notice submitted.
13. ☐ Check was sent without documents.
14. ☐ Other notices have been returned because only one check was issued.
15. ☐ Other:

NOTE - **Please include the following to ensure prompt processing & return:**

A) original signatures on notices & certificate of fee exemptions •
B) two copies of notice if applicant/agency would like to receive a stamped copy before the posting periods ends •
C) two return addressed envelopes •

CONNY B. McCORMACK
Registrar-Recorder/County Clerk
Regina Bennett Deputy
R. BENNETT

THE HOLMBY - WESTWOOD PROPERTY OWNERS ASSN INC. 1081-99 Westwood Blvd., Suite 225 | Los Angeles, Ca. 90024 | Phone 824-0303
40 Years of Service to the Community

April 15, 2002

University of California, Los Angeles
Campus Capital Planning
1060 Veteran Avenue
B0x 951365
Los Angeles, Ca., 90095-1365

Project Title:
2002 Long Range Development Plan and Northwest Housing Infill Project

Project No.: 948365 and 948380

Attention Tova Lelah
Sr., Environmental Planner
Fax: 310-206-1510

These comments are supplemental to comments made by Association President Sandy Brown at the community input meeting on Saturday April 6, 2002.

Solutions to the following existing and expected traffic impacts from additional student growth should be identified and addressed in the Long Range environmental impact update:

1. The need to relocate the existing public transit bus terminal, in particular during early morning and after 10 PM, from Hilgard and Strathmore, to eliminate the sleep disturbance and nuisance created by idling buses. The bus terminal needs to be relocated to an on-site UCLA campus location, to eliminate the neighborhood nuisance caused by the idling buses, and to accommodate an expanded BRUIN Go program, to encourage more student diversion from private cars to public transportation.

2. The need for UCLA to develop an admissions program change to identify and accommodate the truly disable students, currently enrolled or who would be accommodated under an expanded student enrollment, who drive, with free on site campus parking. UCLA must develop a plan to identify the incoming disabled student to: (1) establish the need for special parking, (2) develop an on-campus program to accommodate such students.

The long term off campus abuse of disabled parking permits on residential streets adjacent to the campus must be addressed by UCLA. The problem is the direct consequence of the failure of UCLA to comply with state law to accommodate disabled students with appropriate and sufficient on campus parking.

Both UCLA and City of Los Angeles parking enforcement in recent years has been erratic, due inability to identify the truly disabled student, and due to lack of sufficient city personnel to routinely track the placards. Off site campus residential enforcement is too difficult, and placard abuse continues to deprive residents of their parking spaces on adjacent campus streets. These residents have paid to permit park on the public street in front of their homes and are unable to do so because of so many students parking in these spaces with disabled placards.

3. A timetable to meet all on campus parking needs by the year 2005 and based on the build-out sq. footage of the earlier adopted LRD.

4. The need to identify and establish a ratio of campus open space to buildable space, to establish a required open space sq. footage requirement to be maintained for the future.

Yours truly

Tom Paterson

Tom Paterson
Office Manager
Holmby-Westwood Property Owners Association

April 9th, 2002

TOVA LELAH
Assistant Director
Campus and Environmental Planning
UCLA Capital Programs
1060 Veteran Ave.
La 90095-1365

Dear Ms Lelah

I own a property on Strathmore Dr., the first house down from the Bus Terminal at the Hilgard/Strathmore junction . I am aware that your EIR meeting on Saturday the 6 th of April and wish to add my own comments on this subject. I am hereby requesting that you include an extensive analysis of bus activity at our neighborhood in your EIR.
There are three sections of your draft report where the iussue of the increase in bus rides needs to be included. These are Section 3 : **Air quality**, Section 11 : **Noise/ groundborne vibration** and Section 15 : **Transportation/traffic.**

Air quality. Your draft proposes to measure emission of air pollutants resulting from an on-campus development and to characterize existing air quality in the vicinity of the campus. I request that this study is extended to the area of the HILGARD Ave and Strathmore bus terminal, where the amount of fumes and air pollution has become intolerable. Air pollution in the ares surrounding the bus terminal should also be measured and included in the EIR

Noise. Although we live far from the development, the increased bus traffic will increase noise and ground vibration in our area. Noise increase due to increase in **bus** traffic in residential zones surrounding the whole campus should be included in the EIR.

Traffic. UCLA has an agreement with LA City to monitor number of trips and maintain it at a certain level. This is why once a year the UCLA CORDON COUNT is made. But in this count has not included increase in bus trips over the last 4-5 years or in the future, as a consequence of expansion in Campus activity. I request that increases in bus rides into residential neighborhoods around campus be included in the and mitigation measures be considered in this report. As a first step, I wish to second Mrs. Gray's request that a real operating structure be formed between UCLA and bus companies and city officials.

We, the UCLA neighbors near the Hilgard bus station are already suffering all the listed impact factors, pollution, noise, ground vibration, bus traffic increase. All with subsequent increase in accidents and crime on our residential area this side of campus. And this impact has been imposed on us without any EI study or report, just through gradual increase of bus rides into our area. We learned recently that this terminal was so designed in 1930, and since then, the number of bus rides has been increased manyfold. This has lead to the present intolerable arrangements in terms of idling, layovers, u-turns, traffic offences and many others which have made our everyday life a misery. We can not take the current level of traffic, let alone an increase coming from the increased student body the state is asking UCLA to admit. These students will need to take buses **into UCLA** and not into our residential area.

I request that a serious initiative is taken to relocating all UCLA buses to another terminal, and keep it out of residential neighborhoods. UCLA has offered in the past and again recently the use of LOT 32, a part of Campus, as an alternative bus station. This location is ideal since it is not a residential area and is also closer to the projected new developments.
I also wish to request to be included in your list of concerned homeowners, and include me in the list of individuals that would like a copy of the EIR when drafted.
Thank you very much for your attention
Sincerely yours,

Dr. Edward P. Coleman
Emeritus Professor,
Engineering, UCLA
Los Angeles, CA 90024
(310) 474-1283

Dr Edward Coleman, Emeritus Professor
10556 Strathmore Dr.
Los Angeles, Ca 90024
(310) 474-1283

Subject: RESPONSE TO EIR MEETING/APRIL 6, 2002

Pauline DiPego
10555 Strathmore Drive
Los Angeles, California 90024

(310) 587-5226

April 12, 2002

Campus and Environmental Planning
UCLA Capital Programs
1060 Veteran Ave.
Los Angeles, CA 90095

Attention: Tova Lelah

Re: REVISED NOTICE OF PREPARATION DRAFT EIR/MARCH 20, 2002
SUBJECT: RELOCATION OF BUS STOP AWAY FROM HILGARD/STRATHMORE DRIVE: EAST SIDE OF UCLA

Dear Tova Lelah:

There is urgent need to examine the impact of bus traffic at the Hilgard/Strathmore bus stop EAST of campus as part of the environment report that evaluates enrollment growth at UCLA. This location has been overlooked in your report though the volume of buses currently overwhelms my residential neighborhood. Approximately 600 buses per day from the MTA, BBB, or Culver line collectively arrive and depart this area at two (2) minute intervals creating traffic glut, pollution, earth vibration, and din. The situation has reached critical mass. With the addition of 4000 new UCLA students, substantive changes are necessary.

I propose the following solutions, as suggested by the HOLMBY-WESTWOOD HOMEOWNERS' ASSOCIATION:

--UCLA NEEDS TO **PROVIDE ON SITE CAMPUS PARKING** TO ACCOMODATE FUTURE STUDENT ENROLLMENT

--UCLA NEEDS TO **PROVIDE ON SITE CAMPUS PARKING** FOR DISABLED STUDENTS TO ELIMINATE THE ABUSE OF DISABLED PLACARDS BY STUDENTS ON STREETS ADJACENT TO UCLA

--UCLA NEEDS TO DEVELOP "LOT 32" AND ON SITE CAMPUS LOCATIONS AS BUS HOLDING AREAS, IN ORDER TO RELOCATE BUSES AWAY FROM THE STRATHMORE/HILGARD LOCATION

The following three entries are excerpts from a letter to you from NORA ROZENGURT, my neighbor on Strathmore Drive:

Section 3 (pages 13 & 14). Air quality (REVISED NOTICE/DRAFT EIR/MARCH 20, 2002)

I request that this study is not limited to the vicinity of the new development but extended to the area of the HILGARD Ave and Strathmore bus terminal, where the amount of fumes and air pollution originating from the uncontrolled proliferation of bus rides over the last 3-5 years has created a microclimate of air unfit for breathing. I insist that **BUSES OUTSIDE the CAMPUS** be included in the scope of all measurements and studies, and considered part of the environmental impact of the development given the fact that the increas student numbers will be coupled by traffic mitigation measures aimed to divert car trips into bus trips. _

Section 11 (pages 28 and 29) Noise and groundborne vibration/ noise.

Again, the document only talks about substantial permanent increase in ambient noise levels *in the project vicinity* above levels existing without the project.

I request that these parameters have to be applied not only to the vicinity of the project but also to secondar noise increase due to increase in **bus** traffic in residential zones surrounding the whole campus.

Section 15 (pages 33&34) Transportation/traffic

This refers to increase in traffic which is substantial in relation to existing traffic load. This is where Docume #2 **(2001 UCLA TRIP CAP)** is of relevance. UCLA has an agreement with LA City to monitor number of tri and maintain it at a certain level. This is why they do this census once a year. But in this process, UCLA o monitors trips INTO and OUT OF the campus, not AROUND it, which are obviously our concern.
As UCLA maintains or reduces the number of cars that enter and leave the campus, it does so at the reside neighborhoods expense, by encouraging the use of bus transport, which **does not enter campus**, therefor not counted as UCLA-related traffic growth, but increases the number of bus rides which drive along our hor I will therefore request that the increase in public transport (buses) traffic should be included in your EIR and consequently, possible mitigation measures be considered in this report. (end of Rozengurt excerpt)

Westwood is one of the few urban areas in the US adjacent to a major university that is not blighted. By considering and implementing the previous suggestions, namely relocating the bus holding area away from Hilgard/Strathmore, and providing campus parking for students, California, Los Angeles, and our growing neighbor, UCLA, will serve to keep Westwood vital and sound.

Submitted for the public record.
Respectfully,

Pauline DiPego

Pauline DiPego
Twenty-five year resident of Strathmore Drive

Zacuto, Curtis

From: Cutter.LA@aol.com
Sent: Monday, April 08, 2002 4:04 PM
To: EnvPln
Subject: EIR for UCLA

To Whom It may Concern:

I recently attended a meeting of UCLA, Coucilman Weiss' office, Santa Monica
Big Blue Bus, MTA, and Culver City Bus to address concerns over the Bus Terminal at Strathmore and Hilgard.

This small and completely over-loaded terminal is a terrible source of traffic, air pollution, and noise pollution for this neighborhood. The daily average is already more than a bus every two minutes, as posted on the
Bus Companies own web sites. Accidents are frequent in this location and
many residents are afraid to walk or drive on Hilgard.

I am writing to request that any EIR concerning UCLA include an extensive
analysis of public transportation and UCLA. It is our feeling that the present Hilgard terminal must be relocated to a place that better accomodates the buses, their drivers, and the students. Somewhere within
the campus has been proposed, as has lot 32 near Wilshire. The present location is completely over-taxed and any increase due to a larger student
body at UCLA would spell disaster for our neighborhood.

Please help us solve this problem now as it will surely impact the university in the near future when enrolment increases.

Sincerely yours

Michael Haight
Strathmore resident

10544 Strathmore Drive
Los Angeles, CA. 90024

Kaufman, Lynn

From: Lelah, Tova
Sent: Tuesday, April 23, 2002 8:53 AM
To: Kaufman, Lynn
Subject: FW: Stipulated Agreement Between the University and the WHPOA

Here is the e-mail from Alvin to add to the scoping comments.

-----Original Message-----
From: Brueggemann, Diana (Govt & Cmnty Rel)
Sent: Thursday, April 18, 2002 12:00 PM
To: Alvin134@cs.com
Cc: Magnuson, Carole; Lelah, Tova; Morabito, Sam J. (Bus & Fin Serv); Foraker, David Michael (Bus & Fin Serv-Hsg-Admin); Ericka Lozano; Blackman, Pete; Santon, Sue; Parker, Keith S. (Govt & Cmnty Rel)
Subject: RE: Stipulated Agreement Between the University and the WHPOA

Alvin: Thanks for your inquiry. I am very concerned that there always be excellent communication with Westwood Hills, especially now that there is a proposal that involves construction on the Northwest Campus. That is why we had a meeting as early as possible with your association leadership several months ago. It was set as soon as we had the most preliminary of designs for the Northwest Campus Housing Project so that we could all look at it as a frame of reference for discussion.

There have actually been two meetings in the past fiscal year with the Westwood Hills Association's past and current presidents whose constituency will be most affected by development in the benign use area. One was August 16, 2001 with Harriet Miller, Barbara Dobkin and Carole Magnuson who represented your association's concerns. Sam Morabito, Marc Fisher and Mike Foraker, the project manager, Stephanie Tollenaire, and Tova Lelah attended. Councilmember Miscikowski's chief field deputy also came. We had quite a long meeting and then visited the project site.

On March 6, 2002 we had our project architect fly down from San Francisco specifically to meet for about an hour at Barbara Dobkin's home with Bruce Dobkin, Carole, two representatives from Councilman Weiss' office and our UCLA staff mentioned above to experience the site from your neighborhood. We then walked the entire site around the proposed project for another hour.

We plan to have more meetings as the plans for the recreation building and housing are better articulated. The work is being done with your neighborhood's concerns in mind.

I am copying Carole Magnuson, the current president of your association, to let her know that you would like to be included in future meetings.

-----Original Message-----
From: Alvin134@cs.com [mailto:Alvin134@cs.com]
Sent: Thursday, April 18, 2002 9:19 AM
To: Diana Brueggemann; jerbrown@ucla.edu; incal@earthlink.net
Cc: acarnesale@ucla.edu; tlelah@ucla.edu; Margot Baron; RSD1@aol.com; Cheryl Peterson; Susan Polep; LASpiceCatering@aol.com; DEBGENDEL@aol.com; Martin Kaplan; chmagnuson; info@yournorthvillage.org
Subject: Stipulated Agreement Between the University and the WHPOA

Please be reminded that the location chosen by Capital Programs for the

new
"Infill Housing" project is within the area covered by the Stipulated
Agreement between The Westwood Hills Property Owners Association and the

Regents of the University of California in Los Angeles County Superior
Court
case no. C180 760. The University's failure to engage in a meaningful
dialogue with the Association regarding the buildings and recreational
facilities being planned for this area is a violation of the Agreement
and of
the many promises made over the years by the University about meeting
with
the Association to discuss the community's concerns.
In your Memorandum of April 30, 1999, regarding our April 15, 1999
meeting
about UCLA's proposal for a recreational building and other facilities
in the
Agreement area, you stated that the plans had been put on indefinite
hold and
that you would contact me, and that we would have another meeting on
this
issue if the status of the project changed. The status has changed;
however,
the promised meeting has not been held.
Sterile, bureaucratic presentations, such as the recent EIR Scoping
Meeting
on "Infill Housing," do not meet the "community relations" arrangements
promised to the Association not only in the Agreement, but also in the
many
meetings with the Chancellor and others at the University, and in your
Memorandum referred to above.
Please let me know ASAP when a meeting between the Association and the
University can be held to discuss UCLA's plans for the Agreement area.

April 9th, 2002

TOVA LELAH
Campus and Environmental Planning
1060 Veteran Ave.
La 90095– 1365

Dear Ms Lelah

I own a property on Strathmore Dr. 6 houses down from the Bus Terminal at the Hilgard/Strathmore junction . I am aware that your EIR meeting on Saturday the 6 th of April included comments from Toni Gray, a homeowner on Strathmore Dr, and were documented in the minutes. Her comments regarded the community concern of increased bus activity on Hilgard. I am writing to add my own comments on this subject.

I have carefully read the documents entitled **"REVISED NOTICE OF PREPARATION DRAFT ENVIRONMENTAL IMPACT REPORT" and "2001 UCLA TRIP CAP"** which were handed out in that meeting. And I am writing to request you to include an extensive analysis of bus activity at this location in your EIR.

Specifically in the **"REVISED NOTICE OF PREPARATION DRAFT ENVIRONMENTAL IMPACT REPORT"** I wish to refer to the following sections:

Section 3 (pages 13 & 14). Air quality
Your draft refers to " Emission of air pollutants from **mobile** and stationary sources resulting from an on-campus development" It is proposed to characterize existing air quality in the vicinity of the campus.
I request that this study is not limited to the vicinity of the new development but extended to the area of the HILGARD Ave and Strathmore bus terminal, where the amount of fumes and air pollution originating from the uncontrolled proliferation of bus rides over the last 3-5 years has created a microclimate of air unfit for breathing. I insist that **BUSES OUTSIDE the CAMPUS** be included in the scope of all measurements and studies, and considered part of the environmental impact of the development given the fact that the increase of student numbers will be coupled by traffic mitigation measures aimed to divert car trips into bus trips.

Section 11 (pages 28 and 29) Noise and groundborne vibration/ noise.
Again, the document only talks about "substantial permanent increase in ambient noise levels *in the project vicinity* above levels existing without the project".
I request that these parameters have to be applied not only to the "vicinity of the project" but also to secondary noise increase due to increase in **bus** traffic in residential zones surrounding the whole campus.

Section 15 (pages 33&34) Transportation/traffic
This refers to "increase in traffic which is substantial in relation to existing traffic load". This is where Document #2 **("2001 UCLA TRIP CAP")** is of relevance. UCLA has an agreement with LA City to monitor number of trips and maintain it at a certain level. This is why they do this "census" once a year. But in this process, UCLA only monitors trips INTO and OUT OF the campus, not AROUND it, which are obviously our concern.
As UCLA maintains or reduces the number of cars that enter and leave the campus, it does so at the residential neighborhood's expense, by encouraging the use of bus transport, which **does not enter campus**, therefore is not counted as UCLA-related traffic growth, but increases the number of bus rides which drive along our homes.

I will therefore request that the increase in public transport (buses) traffic should be included in your EIR and consequently, possible mitigation measures be considered in this report. As a first step, I wish to second Mrs. Gray's request that a real operating structure be formed between UCLA and bus companies and city officials.

We, the UCLA neighbors near the Hilgard bus station are already suffering all the listed impact factors, pollution, noise, ground vibration, bus traffic increase. All with subsequent increase in accidents and crime on our residential area this side of campus. And this impact has been imposed on us without any EI study or report, just through gradual increase of bus rides into our area. We learned recently that this terminal was so designed in 1930, and since then, the number of bus rides has been increased manyfold. This has lead to the present intolerable arrangements in terms of idling, layovers, u-turns, traffic offences and many others which have made our everyday life a misery. We can not take the current level of traffic, let alone an increase coming from the increased student body the state is asking UCLA to admit. These students will need to take buses **into UCLA** and not into our residential area.

I request that a serious initiative is taken to relocating all UCLA buses to another terminal, and keep it out of residential neighborhoods. UCLA has offered in the past and again recently the use of LOT 32, a part of Campus, as an alternative bus station. This location is ideal since it is not a residential area and is also closer to the projected new developments.

I also wish to request to be included in your list of concerned homeowners, and include me in the list of individuals that would like a copy of the EIR when drafted.
Thank you very much for your attention
Sincerely yours,

Nora Rozengurt
10530 Strathmore Drive
Los Angeles, Ca 90024
(310) 470-3698
nrozengurt@mednet.ucla.edu

501 Santa Monica Blvd., ste 403, Santa Monica 90401
310-793-1776 FAX 310-899-6741

Paul Verdon

Fax

To:	Tova Lelah – Assistant Director	**From:**	Paul Verdon
Fax:	206-1510	**Pages:**	8
Phone:		**Date:**	4/10/2002
Re:	LRDP –UCLA	**CC:**	

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

Dear Tova,

I am sending you copies of signatures from homeowners located on the East side of the UCLA Campus. The signatures represent homeowner that have been having a problem with the CURRENT bus traffic located in our neighborhood at Strathmore and Hilgard, and our recommendation to the existing bus companies to make changes. The buses serve the students at UCLA. This problem has been growing for some time and has now gotten out of control.

Please make sure that the EIR looks at the impact of noise and traffic in the surrounding areas of UCLA. We are already having problems and can not handle any more traffic. We are actually getting the existing bus traffic to consider relocating so that we have peace in our neighborhood, as well as safety.

I also have faxed to you a letter I emailed on Monday; I want to make sure you got this and inform the EIR agency to look at our neighborhood.

Sincerely,

Paul Verdon

Strathmore Resident

Dear Sir, Madame,

I am aware that your EIR meeting on Saturday the 4th of April included comments from Toni Gray, a homeowner on Strathmore, and were documented in the minutes. Her comments regarded the community concern of increased bus and auto activity on Hilgard.

I am also a home owner on Strathmore four houses down from the Bus Terminal at Hilgard. We are experiencing a tremendous volume of buses at the Hilgard Strathmore Terminal. We are currently round tabling ideas to eliminate the problems we are having from an overtaxed and poorly planned bus location with UCLA and 3 bus companies. Hilgard is a curving roadway that goes north and south and has been a problem for buses to maneuver up and down for ages. We constantly have accidents involving buses and autos. There are over 600 buses a day at this small terminal that can't make the complete u-turn and stick out into oncoming traffic. The buses arrive every 2-3 minutes on average. We are currently trying to have this terminal relocated; so any kind of increased activity at this location would be disastrous to the homeowners. We have already lost the quality of life in our homes from noise and diesel pollution. This location is dangerous for pedestrians, and the value of our real estate is going to decrease.

I am writing to you today to ask you to include an extensive analysis of bus activity at this location in your EIR. We can not take the current level of traffic, let alone an increase coming from the increased student body the state is asking UCLA to admit. These students will need to take buses into UCLA due to mitigating the on going problems of parking and LA grid lock. Please study the relocating of all UCLA buses to another terminal, and keep it out of residential neighborhoods. Also, please put me on your list of concerned homeowners, and include me in the list of individuals that would like a copy of the EIR when drafted.

Sincerely,

Paul Verdon
10544 Strathmore
Los Angeles, Ca 90024
Email-pverdon@firstregional.com

March 28, 2002

To: Big Blue Bus, MTA and Culver City Bus

From: Affected homeowners of noise and diesel pollution

Re: Short term solutions and long term solutions:

In order to bring quality of life and peace to our homes, inside and out, and to prevent excessive amount of diesel exhaust blown into our homes, we are requesting the below changes be made immediately on the short-term solutions and within a reasonable time the long term solution.

SHORT-TERM SOLUTIONS

- **Weekend and holiday schedule change; i.e. relocate bus stop, layovers, and staging to a commercial area in Westwood Village; such as Le Conte, Westwood Blvd, etc. (minimal passenger activity occurs on weekends and holidays other than abusive layovers)**
- **Monday through Friday - Relocate morning bus stops, layovers, staging etc from Hilgard and Strathmore before 7am.**
- **Monday through Friday - Relocate evening bus stops, layovers, staging etc from Hilgard and Strathmore after 10pm.**
- **Eliminate U-Turns.**

LONG-TERM SOLUTIONS

- **Relocation of staging and layovers 100% of the time to a new "Bus Terminal" to be identified in conjunction with UCLA and all bus companies.**
- **Hilgard and Strathmore to remain a bus stop only 5 days a week Monday through Friday from 7am to 10 pm.**
- **Eliminate U-Turns.**

HOMEOWNERS SIGNATURE	ADDRESS
[signature]	10544 Strathmore
Karyn Jackson	550 Hilgard
Aowa Monosson	10526 Strathmore

HOMEOWNERS SIGNATURE	ADDRESS
Edward P. Calenone for Pauline DePago	10556 Strathmore Drive Los Angeles, CA 90024
[illegible]	10530 Strathmore Dr. Los Angeles, Ca 90024
[illegible] Saga	10520 STRATHMORE DR
Mary Gray	10538 Strathmore Dr.
[illegible]	10550 STRATHMORE
[illegible] Ansell	10550 Strathmore Dr.
Pauline DiPego	10555 Strathmore Dr.
[illegible]	10541 STRATHMORE Dr.
MICHAEL HAIGHT	10544 STRATHMORE

March 28, 2002

To: Big Blue Bus, MTA and Culver City Bus

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- **Hilgard and Strathmore to remain a bus stop only 5 days a week Monday through Friday from 7am to 10 pm.**
- **Eliminate U-Turns.**

HOMEOWNERS SIGNATURE	**ADDRESS**
H Monsson	10526 Strathmore Drive
Danielle Monsson	10526 Strathmore Drive
Dayle Dolginer	542 Hilgard Avenue

March 28, 2002

To: Big Blue Bus, MTA and Culver City Bus

From: Affected homeowners of noise and diesel pollution

Re: Short term solutions and long term solutions:

In order to bring quality of life and peace to our homes, inside and out, and to prevent excessive amount of diesel exhaust blown into our homes, we are requesting the below changes be made immediately on the short-term solutions and within a reasonable time the long term solution.

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- **Relocation of staging and layovers 100% of the time to a new "Bus Terminal" to be identified in conjunction with UCLA and all bus companies.**
- **Hilgard and Strathmore to remain a bus stop only 5 days a week Monday through Friday from 7am to 10 pm.**
- **Eliminate U-Turns.**

HOMEOWNERS SIGNATURE	**ADDRESS**
Ryan Hartman	10538 Strathmore

March 28, 2002

To: Big Blue Bus, MTA and Culver City Bus

From: Affected homeowners of noise and diesel pollution

Re: Short term solutions and long term solutions:

In order to bring quality of life and peace to our homes, inside and out, and to prevent excessive amount of diesel exhaust blown into our homes, we are requesting the below changes be made immediately on the short-term solutions and within a reasonable time the long term solution.

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- **Hilgard and Strathmore to remain a bus stop only 5 days a week Monday through Friday from 7am to 10 pm.**
- **Eliminate U-Turns.**

HOMEOWNERS SIGNATURE	ADDRESS
[signature]	10530 Strathmore Dr Los Angeles, Ca 90024
Mariana P. Viber	10530 Strathmore Dr. Los Angeles, Ca 90024.

March 28, 2002

To: Big Blue Bus, MTA and Culver City Bus

From: Affected homeowners of noise and diesel pollution

Re: Short term solutions and long term solutions:

In order to bring quality of life and peace to our homes, inside and out, and to prevent excessive amount of diesel exhaust blown into our homes, we are requesting the below changes be made immediately on the short-term solutions and within a reasonable time the long term solution.

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- **Hilgard and Strathmore to remain a bus stop only 5 days a week Monday through Friday from 7am to 10 pm.**
- **Eliminate U-Turns.**

HOMEOWNERS SIGNATURE **ADDRESS**

[signature] Patterson 10525 Strathmore Dr. 90024

Zacuto, Curtis

From: Paul Verdon [PVerdon@firstregional.com]

Sent: Monday, April 08, 2002 3:35 PM

To: EnvPln

Subject: FW: EIR for UCLA expansion of student

-----Original Message-----
From: Paul Verdon
Sent: Monday, April 08, 2002 11:54 AM
To: 'envplng@capnet.ucla.edu'
Cc: Zev Yaroslavsky (zev@bos.co.la.ca.us); Aviva Monosson (amonosson@hotmail.com); Brad and Teddy (BradTJoy@aol.com); Debra Ansel (debraansell@yahoo.com); Diana Brueggemann (DBRUEGGE@support.ucla.edu); Jack Weiss (jweiss@council.lacity.org); lisa Trifilette (ltrifile@council.lacity.org); Marcia Pine (CallieOB@aol.com); Michael Haight (cutterla@aol.com); Pauline DiPego (samarg@lafn.org); Stephanie Negriff (stephanie-negriff@ci.santa-monica.ca.us); Stephen Cunningham (Steve.Cunningham@culvercity.org); Tom Horne (HorneT@mta.net); Toni Gray (gtoni2882@aol.com)
Subject: EIR for UCLA expansion of student body

Dear Sir, Madame,

I am aware that your EIR meeting on Saturday the 4th of April included comments from Toni Gray, a homeowner on Strathmore, and were documented in the minutes. Her comments regarded the community concern of increased bus and auto activity on Hilgard.

I am also a home owner on Strathmore four houses down from the Bus Terminal at Hilgard. We are experiencing a tremendous volume of buses at the Hilgard Strathmore Terminal. We are currently round tabling ideas to eliminate the problems we are having from an overtaxed and poorly planned bus location with UCLA and 3 bus companies. Hilgard is a curving roadway that goes north and south and has been a problem for buses to maneuver up and down for ages. We constantly have accidents involving buses and autos. There are over 600 buses a day at this small terminal that can't make the complete u-turn and stick out into oncoming traffic. The buses arrive every 2-3 minutes on average. We are currently trying to have this terminal relocated; so any kind of increased activity at this location would be disastrous to the homeowners. We have already lost the quality of life in our homes from noise and diesel pollution. This location is dangerous for pedestrians, and the value of our real estate is going to decrease.

I am writing to you today to ask you to include an extensive analysis of bus activity at this location in your EIR. We can not take the current level of traffic, let alone an increase coming from the increased student body the state is asking UCLA to admit. These students will need to take buses into UCLA due to mitigating the on going problems of parking and LA grid lock. Please study the relocating of all UCLA buses to another terminal, and keep it out of residential neighborhoods. Also, please put me on your list of concerned homeowners, and include me in the list of individuals that would like a copy of the EIR when drafted.

Sincerely,

Paul Verdon
10544 Strathmore
Los Angeles, Ca 90024
Email-pverdon@firstregional.com

List of Agencies, Organizations, and Individuals Commenting at the Scoping Meeting or in Response to the NOP(S)

Name	Affiliation	June 12, 2001 NOP	March 20, 2002 NOP[1]	April 6, 2002 Scoping Meeting[2]
State Agencies				
Scott Morgan	State of California, Governor's Office of Planning and Research	✓	✓	
Stephen J. Buswell	State of California, Department of Transportation	✓	✓	
Morgan Wehtje	California Department of Fish and Game	✓	✓	
Rob Wood	State of California, Native American Heritage Commission	✓	✓	
Regional Agencies				
Steve Smith, Ph.D.	South Coast Air Quality Management District		✓	
Jeffrey M. Smith, AICP	Southern California Association of Governments	✓		
Local Agencies				
Regina Bennett	County of Los Angeles, Registrar-Recorder/County Clerk		✓	
Esther Tam	City of Los Angeles, Department of Transportation	✓		
Homeowner's Groups/Organizations				
Tom Paterson	Holmby-Westwood Property Owners Association		✓	
Alvin Milder	UCLA Watch		✓	
Travis Longcore, Ph.D.	The Urban Wildlands Group, Inc.	✓		
Individuals				
Dr. Edward P. Coleman	Strathmore Resident		✓	
Pauline DiPego	Strathmore Resident		✓	
Michael Haight	Strathmore Resident		✓	
Nora Rozengurt	Strathmore Resident		✓	
Paul R. Verdon	Strathmore Resident		✓(2)	
Pat Patterson	Strathmore Resident			✓(W)
Dr./Mrs. Ira Monosson	Strathmore Resident			✓(W)
Pat Vasquez	GRAAC			✓(W)
Elizabeth J. Brainard	Brentwood Glen Association			✓(W)
Deborah Nussbaum	Westwood Hills Property Owners Association			✓(W/V)
Steven Twining	Roscomere Valley and Hillside Homeowners Federation			✓(V)
Sandy Brown	Holmby–Westwood Property Owners Association			✓(V)
Carole Magnuson	Westwood Hills Property Owners Association			✓(V)
Toni Gray	Strathmore Resident			✓(V)

1. (2) indicates that two comment letters were received by the same individual
2. (W) indicates written comments were received at or subsequent to the Scoping Meeting, while (V) indicates oral comments were received at the Scoping Meeting

Source: EIP Associates 2002

Appendix 3 Public Scoping Meeting Comments

E.I.R. SCOPING MEETING

FOR THE LONG RANGE DEVELOPMENT PLAN AND NORTHWEST HOUSING INFILL PROJECT

* * *

DIANA BRUEGGEMANN

REPORTER'S TRANSCRIPT OF PROCEEDINGS

SATURDAY, APRIL 6, 2002

NEWLANDER & NEWLANDER
1138 WILSHIRE BOULEVARD, SUITE 200
LOS ANGELES, CALIFORNIA 90017
TELEPHONE: (213) 482-1522

MS. BRUEGGEMANN: This is the part of the program where we're actually taking down -- we have a court reporter here. Thank you -- she is taking down everything that you say as a formal comment that will be considered as we write this environmental document that will come out later this summer.

Remember, this part of the meeting, we don't answer anybody's questions. This is not a dialogue. This is just now your comments. The questions you pose will be dealt with very formally in the E.I.R. So those of you who want to speak, I presume you filled out a card?

Let me just go over once again the E.I.R. process and the schedule. The process of determining the focus and content of the E.I.R. is known as scoping. To formally begin the process, U.C.L.A. filed a Notice of Preparation or N.O.P. with the State Office of Planning and Research on March 20th, 2002.

The notice was sent to several agencies, associations and interested individuals to provide information and request comments on the scope of the Draft E.I.R. The notice was accompanied by the Initial Study which provided information on the scope of an analysis proposed for the Draft E.I.R., for both the update of the L.R.D.P. and the Northwest Housing Project.

Several of you may have received a copy of the N.O.P. and the Initial Study. If you'd like to obtain a copy of that today, let us know. These documents are also available online. And for those that are still here, I got to tell you, we have a new capital programs website. It's terrific. It has everything on it; all the projects, lots of information. And we'll do a formal presentation of it in our next community meeting.

Let me give you that website: It is www.capital.ucla.edu. That is www.capital.ucla.edu. Capital with an A-L. Let's see, I think we already said that.

This meeting is also part of the scoping process to assist U.C.L.A. in determining the range of issues that should be considered in the E.I.R. As previously mentioned, these comments can be submitted in writing by using one of the comment cards provided, by using the computer in the back of the room until we're done today or by composing your own comment letter and sending, faxing or e-mailing it in. Or the last option, I have two people who would like to provide verbal comments today.

As part of the N.O.P. review process, all comments on the scope of the E.I.R. must be submitted by April 22nd, 2002. The environmental review process is illustrated by a flow chart that we provided that flow chart to you on a handout. The flow chart shows the opportunities for public comment during the scoping period as well as for the Draft E.I.R. The one thing we did not include, and let me repeat, is our e-mail address for sending your comment: envpln@capnet.ucla.edu.

It's anticipated that the Draft E.I.R. could be released for public review later this summer or earlier fall. That would be followed by a 45-day review period and there will be a formal hearing to hear your comments. Consideration of the L.R.D.P. and Northwest Housing Project and certification of the E.I.R. by the Regents is targeted for late winter.

I have two cards. Are there any others? Feel free just to bring them to me as you fill them out.

The first speakers are Carole Magnusen. Carole, you can come up and say your comments.

THE PUBLIC: I'm assuming that the areas that are normally covered in an E.I.R. will be covered in this E.I.R., so my comments are not meant to exclude any other areas that are not mentioned.

I also want to take note of the fact that there was printed material provided for discussion here today, but copies were not made available to those who participated, which is inconsistent with general University procedure. I have seldom been in a meeting where I didn't get a packet of slides that I was going to be seeing.

I frequently wondered why that was, and this morning I looked and I learned. From where I was sitting, the numbers were frequently indecipherable, and since we were talking about numbers, that created a hardship for those that wanted to participate in the meeting. That being said, it was a very good meeting other than that.

The E.I.R. should examine the compliance of the projects that are proposed for the northwest campus zone with the stipulated agreement that exists with the Westwood Hills Property Owners Association. The Master Plan -- and I say it using a Master Plan map -- I assume that is very preliminary since I was under the impression that the projects have not been fully sited.

The project shows a recreational components and facilities waste handling components. The facilities waste storage shed should be fully examined in the E.I.R. to include, but not limited to, what types of materials will be stored in the shed, what activities will take place in and around the shed, how the shed will be accessed, how materials will be trucked in and out, whether or not new access roads will be required in order for the campus to use that facility shed, what kind of parking will be provided at the shed.

Will there be new construction and development of asphalted surface at the shed? What will be the noise impacts? How will the shed be secured and what sort of lighting will be provided? What is likely to be -- what are the hours of operation and what's likely to be the noise impacts that carry across the street into the neighborhoods?

On the subject of traffic. The E.I.R.s for University projects typically don't really adequately examine impact of traffic on the neighborhoods that are most adjacent to the campus. Particularly the Westwood Hills Neighborhood and the Holmby-Westwood Neighborhood.

And the Westwood Hills Neighborhood, as I said earlier, lies north and south of Montana Avenue, which is a street that carries, by one recent trip count, in excess of 13,000 trips a day which -- and frequently is congested and backs up at rush hours, which results in a great deal of cut-through traffic on the smaller residential streets, such as Bentley, Cashmere, Greenfield, Cashmere Terrace, Denslow.

I would like -- the E.I.R. should examine the impact of an increase in traffic that may be attributed to the increase of students on the local streets. And where -- in addition, they should examine the local -- there is a tendency to deal in E.I.R. with regional traffic impacts, the E.I.R. should also examine the localized impacts that arise from the addition of students, by which I mean the weekend, daytime increase and the impact of daytime, off-peak hour traffic on the immediate neighborhood.

The E.I.R. should develop mitigations for the impact on the nearby neighborhoods of the increase of the University traffic. Thank you very much.

MS. BRUEGGEMANN: Thank you, Carole. The next speaker is Steve Twining.

THE PUBLIC: I'm next?

MS. BRUEGGEMANN: If you want somebody else to go.

THE PUB LIC: Yes. I'm Steve Twining, president of the Roscomare Valley Association. We're neighbors to the north. And also chairman of the Hillside Federation which represents 200,000 homeowners from Los Feliz to the Palisades to Echo Park to Woodland Hills.

Our number one concern is traffic, traffic, traffic. We wonder what kinds of mitigations U.C.L.A. is offering the various neighborhoods; perhaps off-duty policeman to help monitor the speed and volume of traffic; perhaps manned speed trailers. Speed trailers were provided by the Fox Corporation in their E.I.R. to residents of Motor Avenue and south areas of below 20th Century Fox.

Perhaps crossing guards to help schools such as ours, the Roscomare school which is a public school and has terrible traffic problems.

We'd like to see the rapid transit position of the University of California Los Angeles, particularly the traffic as it concerns not only students, but staff and teaching staff. We think U.C.L.A., which claims to be environmentally sensitive, should be exceptionally sensitive to the use of rapid transit and getting people out of automobiles.

We are concerned about the status that the parking revenues are used to only -- or primarily provide for increased parking facilities, which just causes more traffic in the general area. We are concerned about the use of the 1990 Long Range Plan as a crutch, even though the circumstances, such as the construction of additional office buildings in the general area, two proposed and planned in Century City, high-rise facilities, and there are two proposed on Wilshire Boulevard west of the 405.

We are concerned about the increased use of the summer program providing substantially increased traffic. We believe that there should be balloon tests on the buildings so that residents to the north can determine whether or not these buildings will impact their view.

Basically, we recognize the excellence of the University of California Los Angeles, but we feel that they have failed to be concerned with the overall traffic situation in the West Los Angeles area.

MS. BRUEGGEMANN: Thank you, Steve. The next speaker is Sandy Brown followed by Deborah Nussbaum.

THE PUBLIC: I'm going to be very brief. Do I have to talk --I'm going to be very brief because I know the other neighborhoods have picked up on some of the main issues.

The one thing that I want ask for up front is instead of a 45-day period, is to extend that period. We have a big project coming into Westwood Village as you well know, and the summertime is not a good time to hand out something and giving all of the neighborhoods a 45-day response period. So I would ask to extend that at least to 60 days, which will take us into a time when there aren't a lot of holidays and people are back in town. I assume it's coming out in the summertime which is not -- never a good time. Thank you.

MS. BRUEGGEMANN: Deborah Nussbaum, followed by Tony Gray.

THE PUBLIC: Hi, I'm Deborah Nussbaum. I live in the Westwood Hills area and I'm concerned over the increased through traffic that the additional housing on the U.C.L.A. campus will generate. There's -- the increased housing may not increase daily trips, trip counts that are counted for U.C.L.A., but it will increase the general community traffic when these individuals are now traveling out of the Westwood campus into internships and part-time jobs, which often go with being students on a campus.

And I'm concerned about this increase in this after-hour traffic because it doesn't seem that there's really a peak hour traffic. It's all day. There is no letdown anytime of hours when you're looking at these counts. And I'd like that to be considered as to what it is going to do to the local area.

Also with the changes that are to be made on the 405 Freeway and how the traffic flow is going to be from the freeway to the campus, people going back and forth. It's a big issue, especially for the people who are west of U.C.L.A. and sandwiched in between the 405 and U.C.L.A. I think that's really important that we look at that.

And I'm also concerned about, with the building that's going to take place on the U.C.L.A. campus, the dirt-hauling trucks now stage themselves along Sepulveda Boulevard. And I find that they are a real danger with them getting on the 405 Freeway and getting off. They often use the Waterford on-ramp and the Wilshire exit to make a quick turnaround or making U-turns on Sepulveda, which they're not supposed to.

There is going to be additional building going on, and I think that that component be looked at, that it's probably the only logical place to put them, but when two or three of them rush out to hop on the freeway, they tie up the other traffic and makes it dangerous for all of us. And I'm traffic. Thank you.

MS. BRUEGGEMANN: Very good. Tony Gray. Tony is our last speaker. If there is anyone that wants to come back and speak anew, just let me know.

THE PUBLIC: I'm Tony Gray. I'm a Strathmore resident. I represent a small group of about 20 homeowners which is a subset of the Westwood Hills Homeowners Group Association who live near the Hillgard Strathmore bus stop.

I'd like to address the bus stop that was designed in the 30's and had little change since the 30's and how that works with campus in 2010.

At this point, we believe that the bus stop is over capacity. We are currently experiencing at least 600 bus trips from Big Blue Bus a day, in and out of the terminal, not to mention the M.T.A. north, south. So we are looking at least 1,000 trips up and down, and near our homes.

And we're wondering what mitigation can be done with the bus company to eliminate the noise and the diesel pollution that we are experiencing. And I know the experience even at the faculty center. And the (inaudible) factor starting at 5:15 in the morning up until midnight, we have the bus companies that are staging their buses with no riders at many hours during the day, using it as convenient layover for their lunch stops, their breaks in between.

And we're wondering if there is any way that, through the E.I.R. process, that the noise can be studied that we're experiencing, the pollution that we're experiencing.

And thirdly, is there some sort of a mechanism for U.C.L.A. and the bus companies, a structure where they can do better future planning with the bus companies to provide ridership in and to the campus and help -- actually help the campus as well. But I think -- do think a '30s terminal operated in the way now is not effective in 2010 from the plans that I see. Thank you.

MS. BRUEGGEMANN: Thank you, Tony. Anyone else would like to speak?

With that, this closes the official formal hearing. And is there anything else I need to say?

(The proceedings concluded at 12:18 p.m.)

REPORTER'S CERTIFICATE

STATE OF CALIFORNIA)
) ss
COUNTY OF ORANGE)

I, Linda D. White, C.S.R. 12009, Certified Shorthand Reporter for the State of California, do hereby certify;

That said proceedings was taken before me at the time and place therein stated and was thereafter transcribed into print under my direction and supervision, and I hereby certify the foregoing proceedings is a full, true and correct transcript of my shorthand notes so taken.

I further certify that I am not of counsel nor attorney for either of the parties hereto or in any way interested in the event of this case and that I am not related to either of the parties hereto.

WITNESS my hand this 8th day of April, 2002.

____

LINDA D. WHITE, CSR No. 12009

CERTIFIED COPY CERTIFICATE

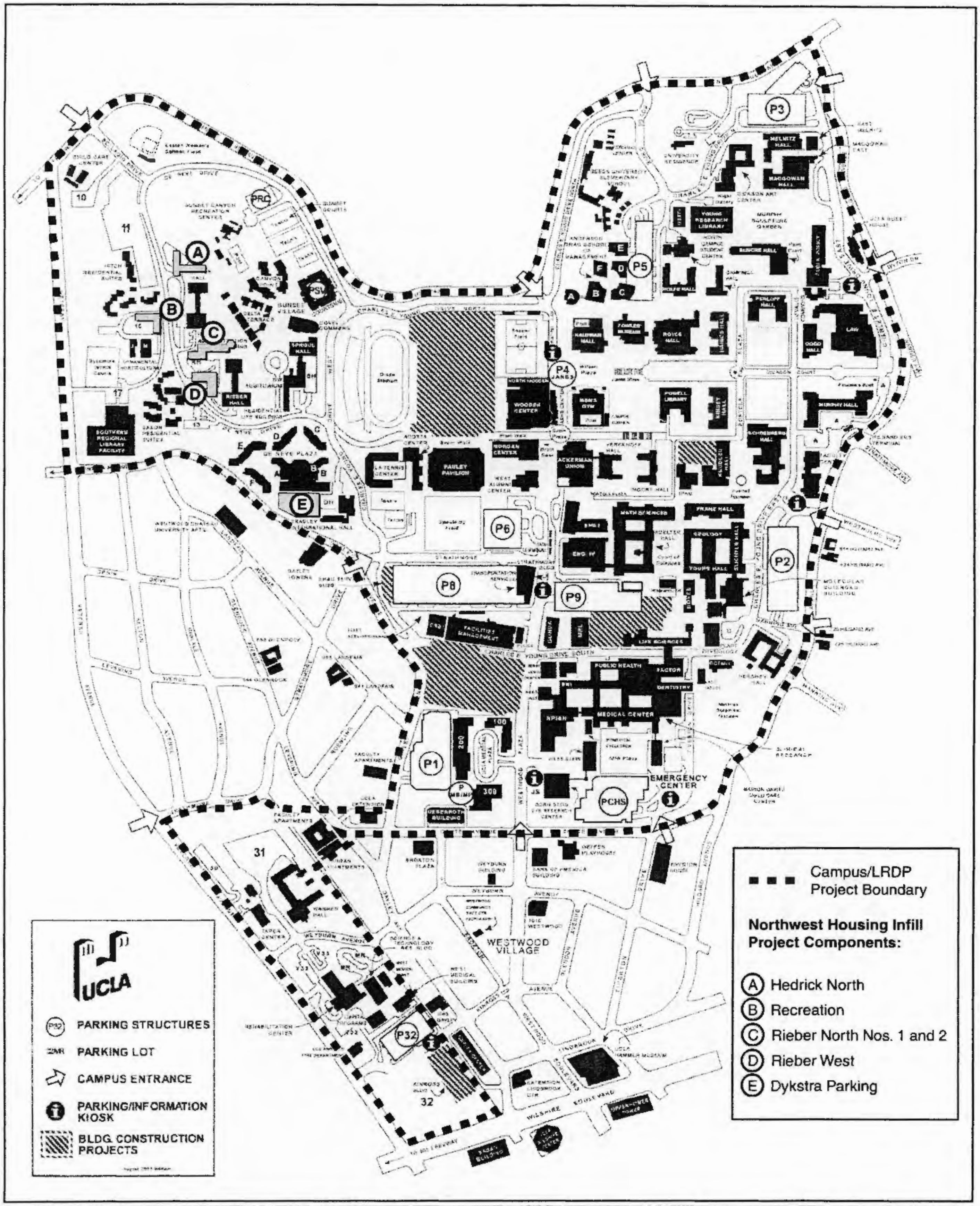
I, Linda D. White, Certified Shorthand Reporter, No. 12009, hereby certify that the attached transcript is a copy of the original transcript taken before me on the 6th day of April, 2002, as thereon stated.

I declare under penalty of perjury that the foregoing is true and correct.

Executed at Anaheim, California, this 8th day of April, 2002.

____

LINDA D. WHITE, C.S.R. NO. 12009



Not to Scale

SOURCE: EIP Associates

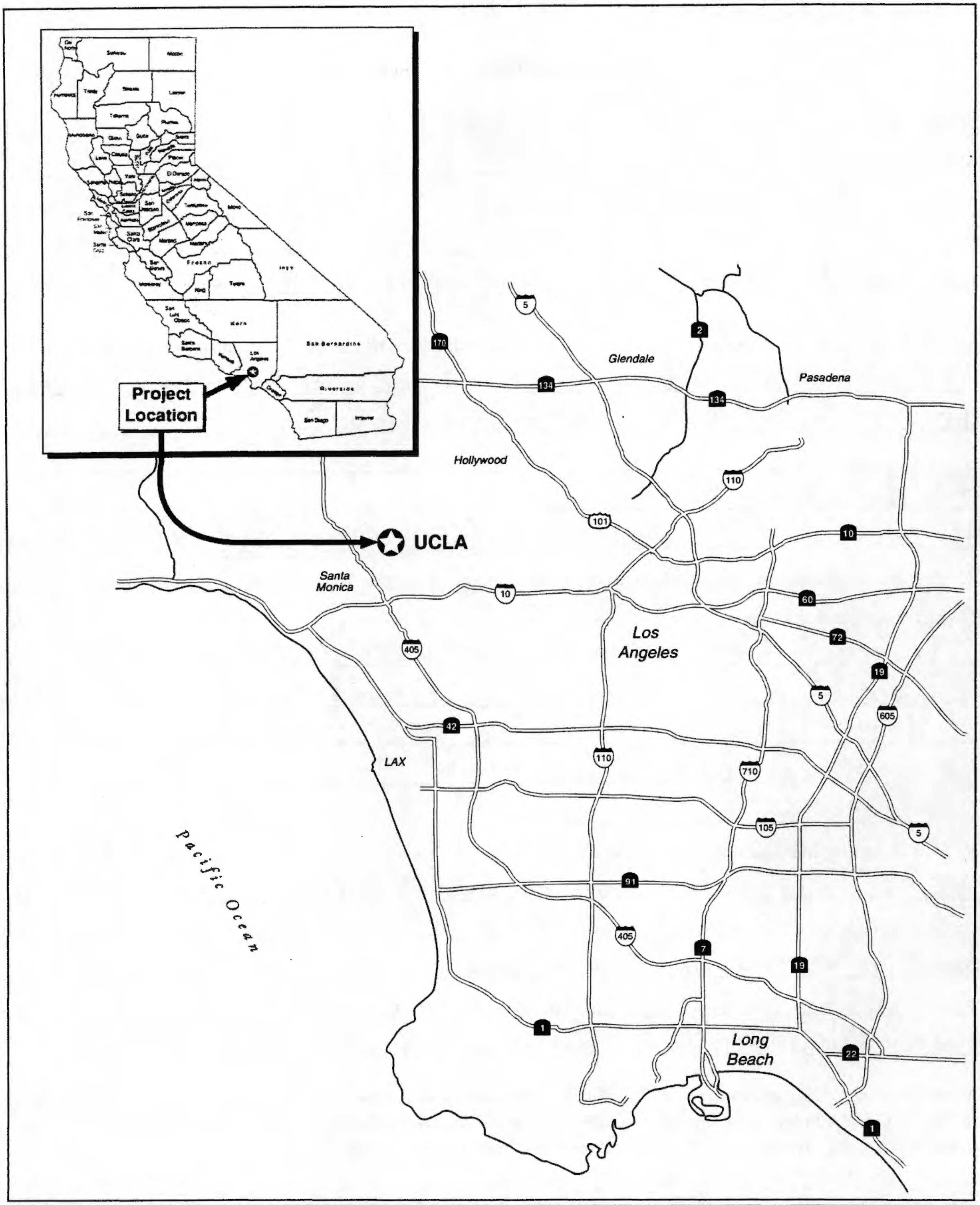
10328-07

EIP ASSOCIATES

FIGURE 2

Project Site

UCLA



SOURCE: EIP Associates

10328-07

EIP ASSOCIATES

FIGURE 1
Regional Map

UCLA

SCOPING MEETING COMMENT FORM

Name: NORA ROZENGURT
Affiliation: NEIGHBOR.
Address: 10530 Strathmore Dr.
City: Los Angeles State: Ca Zip: 90024
Phone/E-mail: (310) 206-8284 nrozengurt@mednet.ucla.edu

1. What environmental impacts do you think should be addressed in the Environmental Impact Report (EIR)?

Section 3 - Air quality; Section 11 Noise and groundborne vibration/noise, Section 15 TRANSPORT/traffic.

All these three Environmental Impacts should be addressed IN the context of increased BUS TRIPS around UCLA campus

2. Are there mitigation measures or project alternatives that you would like to suggest to reduce potential environmental impacts?

The neighbors request is that UCLA campus should absorb the Impact of Increased bus Rides. Or that Rides should be directed outside residential areas in any other way

3. Are there any additional issues/concerns about the project that you would like to bring to UCLA's attention?

YES; Bus Rides have increased massively over the 4 years since I came to live near Campus. Bus companies and UCLA Have no Organism or Commitee coordinating their common needs/relations. - Such commitee should be created. We presently have 2,000 bus Rides on Hilgard/Strathmore ~~station~~ Station. - Neighbors life has turned Intolerable

Please provide this questionnaire to a UCLA staff person before you leave today, or fold, seal, and mail by April 22, 2002 to UCLA Capital Programs, Campus and Environmental Planning, 1060 Veteran Avenue, Los Angeles, CA 90095-1365. Insert additional sheets if needed. All comments provided become public information.

UCLA LONG RANGE DEVELOPMENT PLAN AND
NORTHWEST HOUSING PROJECT EIR

April 6, 2002

SCOPING MEETING COMMENT FORM

Name: PAUL R. VERDON

Affiliation: NEIGHBOR

Address: 10544 STRATHMORE DR

City: LA State: CA Zip: 90024

Phone/E-mail: 310-793-1776 PVERDON@FIRSTREGIONAL.COM

1. What environmental impacts do you think should be addressed in the Environmental Impact Report (EIR)?

TRAFFIC SURROUNDING UCLA ON THE EAST SIDE. THE BIGGEST PROBLEM WE ARE CURRENTLY HAVING IS WITH 600 BUSES PER DAY COMMING TO HILGARD & STRATHMORE. ON AVERAGE ONE BUS EVERY 2 MINUTES. THE NOISE & DIESEL POLLUTION IS HAVING AN IMPACT ON US.

2. Are there mitigation measures or project alternatives that you would like to suggest to reduce potential environmental impacts?

RELOCATE THE BUSES ON CAMPUS, OR OUT OF A RESIDENTIAL NEIGHBORHOOD; USE LOT AT WILSHIRE & VETERAN

3. Are there any additional issues/concerns about the project that you would like to bring to UCLA's attention?

IF UCLA KEEPS INCREASING STUDENTS/TRAFFIC THEY WILL BE RESPONSIBLE FOR THE DECREASE IN OUR REAL ESTATE VALUES & QUALITY OF LIFE !!

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UCLA LONG RANGE DEVELOPMENT PLAN AND
NORTHWEST HOUSING PROJECT EIR

April 6, 2002

SCOPING MEETING COMMENT FORM

Name: Pat L. Patterson

Affiliation:

Address: 10525 Strathmore

City: LA State: CA Zip: 90024

Phone/E-mail:

1. What environmental impacts do you think should be addressed in the Environmental Impact Report (EIR)?

The traffic around campus is heavy with car & buses

2. Are there mitigation measures or project alternatives that you would like to suggest to reduce potential environmental impacts?

Bushes on bus island, stop signs at corner

3. Are there any additional issues/concerns about the project that you would like to bring to UCLA's attention?

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UCLA LONG RANGE DEVELOPMENT PLAN AND
NORTHWEST HOUSING PROJECT EIR

April 6, 2002

SCOPING MEETING COMMENT FORM

Name: DR & Mrs. Ira Monosson

Affiliation: Home owners on Strathmore Drive

Address: 10526 Strathmore DR

City: LA State: CA Zip: 90024

Phone/E-mail: amonosson@hotmail.com

1. What environmental impacts do you think should be addressed in the Environmental Impact Report (EIR)?

The 600 buses (one every 2 minutes) that drive down Hilgard, many w/ diesel fuel, a known cancer causing agent! Hilgard Ave. & the 1930 UCLA bus terminal were never designed to handle this amount of traffic! All the UCLA sorority houses & residential neighborhoods are being adversely affected - dangerous situation!

2. Are there mitigation measures or project alternatives that you would like to suggest to reduce potential environmental impacts?

UCLA Bus Terminal needs to be relocated to what is the real entrance of the University - Westwood Blvd at Weyburn. A "cap" on growth at UCLA must be considered - as is, too many students, buildings & too few parking areas & acreage.

3. Are there any additional issues/concerns about the project that you would like to bring to UCLA's attention?

Shuttle bus service to different drop-offs on campus. People who drive may park at the Federal Building or the huge unused lands of the Veteran's Administration. Noise carries in these "Westwood Hills" - we hear all rallies, outdoor band activities that take place on campus along w/ cars & buses.

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SCOPING MEETING COMMENT FORM

Name: Patricia Vasquez

Affiliation: Brentwood Resident, GRAAC

Address: 11948 Gorham Ave. No.2 City: Los Angeles State: CA Zip: 90049

Phone/E-mail: trish.vasquez@sprintpcs.com

1. What environmental impacts do you think should be addressed in the Environmental Impact Report (EIR)?

2. Are there mitigation measures or project alternatives that you would like to suggest to reduce potential environmental impacts?

3. Are there any additional issues/concerns about the project that you would like to bring to UCLA's attention?

In Rory's presentation, I felt that he presented the university's committment to keeping the addition of new bodies down a bit simplistically. Based on the fact that the LRDP is being dramatically revised, I'm not convinced that we will be able to stay under projected addition of 4,000 eligible students. Although it could be a case of we'll see when we get there, I think it would serve the presentation well to stengthen the points that support the university's commitment to keeping the body count down.

Please save this file by following these steps:
1) Select File, click SAVE AS
2) Type the document name, use your last name and first initial e.g., SmithA.doc
3) Select the pull down menu and choose "3 ½ floppy a:\ drive"
4) Click SAVE
5) Close the file

All comments provided become public information.

UCLA LONG RANGE DEVELOPMENT PLAN AND
NORTHWEST HOUSING PROJECT EIR

April 6, 2002

SCOPING MEETING COMMENT FORM

Name: Debbie Nussbaum
Affiliation: WHPOA - Neighbor
Address: 516 Cashmere Terrace
City: Los Angeles State: CA Zip: 90049
Phone/E-mail: 310) 476-4342 Nussbaum3@earthlink.net

1. What environmental impacts do you think should be addressed in the Environmental Impact Report (EIR)?

A. Ten years of construction is beyond a transient effect. What is the environmental effects of 10 years of sustained construction.
B. Is UCLA working with Caltrans in coordinating construction given that Caltrans will be widening the 405 Freeway and changing some on and off ramps from Sunset through Olympic Blvds.

2. Are there mitigation measures or project alternatives that you would like to suggest to reduce potential environmental impacts?

3. Are there any additional issues/concerns about the project that you would like to bring to UCLA's attention?

The proposed reduced roadway width of Weyburn Ave between Veteran Ave and Midvale Alley (IV.C-6) will reduce traffic flow in to and out of the UCLA campus. It will back up traffic on to Wilshire, Veteran, Sepulveda and Westwood Blvds. The traffic on Weyburn Ave. is comprised of UCLA traffic almost exclusively.

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I feel if this street is reduced from 2 lanes each in direction to only one each direction, that the existing traffic will impact the residential streets in the Neighborhood.

UCLA LONG RANGE DEVELOPMENT PLAN AND
NORTHWEST HOUSING PROJECT EIR

April 6, 2002

SCOPING MEETING COMMENT FORM

Name: Elizabeth J. Brainard
Affiliation: Brentwood Glen Association
Address: 11420 Bolas St.
City: Los Angeles State: CA. Zip: 90049
Phone/E-mail: lizbga@aol.com

1. What environmental impacts do you think should be addressed in the Environmental Impact Report (EIR)?

The major impact is increase in population with attendant increase in vehicles. While your report gives only a small increase, 60, in parking spaces, greater populati will for certain, bring more traffic, no doubt above the 60 car level.

2. Are there mitigation measures or project alternatives that you would like to suggest to reduce potential environmental impacts?

Much more needs to be done to reduce Traffic. This is a critical issue on the west side & may bring about an alteration of the 405 freeway which would be Catastrophic to the west side. Supplementing fares, or providing free fares on public Transportation is a must.

3. Are there any additional issues/concerns about the project that you would like to bring to UCLA's attention?

Strict enforcement of street routes during construction. This has been a problem to our neighbor-hood during the construction of the parking lot under the athletic field off of Sunset Blvd.

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Community Information and EIR Scoping Meeting

UCLA Long Range Development Plan and Northwest Student Housing Infill Project

April, 6, 2002
8:30 a.m. – 12:30 p.m.
Morgan Center, Press Room

Agenda

8:30 a.m. - 9:00 a.m.	Welcome / Purpose of the Meeting
9:00 a.m. – 11:00 a.m.	Topical Presentations / Questions and Answers • Enrollment Growth • Land Use • Student Housing • Traffic & Parking
11:00 a.m. – 11:15 a.m.	BREAK
11:15 a.m. – 12:30 p.m.	Public Comment on Scope of the EIR (recorded)
12:30 p.m.	Adjourn

Appendix 4 Traffic Technical Report

UCLA LONG RANGE DEVELOPMENT PLAN

TRANSPORTATION SYSTEMS ANALYSIS

Prepared for:

UNIVERSITY OF CALIFORNIA, LOS ANGELES

Prepared by:

Crain & Associates
2007 Sawtelle Boulevard, Suite 4
Los Angeles, California 90025
(310) 473-6508

October, 2002

EXECUTIVE SUMMARY

The University of California, Los Angeles (UCLA) proposes to update the campus Long Range Development Plan (LRDP) to address the program and space implications of a planned increase in student enrollment in both regular session and summer session (through the academic year 2010/2011). The proposed 2002 LRDP would reallocate the development capacity remaining in the 1990 LRDP (of approximately 1.7 million gross square feet) among the eight campus land use zones to accommodate space needs (associated with current programs and anticipated enrollment growth), including a concurrently-proposed increase in on-campus housing for approximately 2,000 undergraduate students.

To assess the potential traffic impacts of the 2002 LRDP, this study provides an evaluation of existing and future traffic conditions at 58 study intersections and seven freeway segments on the San Diego (I-405) and Santa Monica (I-10) Freeways. Future traffic conditions were modeled to account for projected regional growth, anticipated highway and street improvements, traffic associated with previously-approved projects, implementation of previously-adopted mitigation measures, and continued implementation of the campus Transportation Demand Management programs.

The on-campus population growth associated with the 2002 LRDP includes an increase of approximately 1,895 faculty/staff, 2,135 students (of which approximately 1,675 would be on-campus resident students), and 1,446 other individuals (e.g., visitors, patients, etc.) during the regular session between 2001 - 2 and 2010 - 11. In addition, between 2000 and 2010 summer enrollment would increase by approximately 6,550 students (of which approximately 3,772 would be on campus on an average weekday). The on-campus population growth would result in increased demand for on-campus parking. This traffic study shows that with development of the concurrently-proposed

Northwest Campus student housing, future campus demand can be accommodated within the cap of 25,169 on-campus spaces established in the 1990 LRDP. The on-campus population growth and anticipated parking utilization on-campus would result in an increase in vehicle trip generation, from the current (Fall 2001) 121,799 to approximately 131,150 average daily trips (by the year 2011), which is below the vehicle trip cap of 139,500 trips established in the 1990 LRDP.

The trip generation associated with implementation of the 2002 LRDP would increase traffic volumes on the local street network and the adjacent freeways. During the regular session, five intersections would be significantly impacted by project-related traffic prior to physical roadway improvements. During the summer, when overall traffic volumes would be lower than during the regular session, 25 intersections would be significantly impacted by project-related traffic, prior to physical roadway improvements. Impacts from the 2002 LRDP on the seven study segments of the San Diego and Santa Monica Freeways would be less than significant during both the regular and summer session.

With the implementation of feasible mitigation measures, the impacts of the 2002 LRDP would remain significant and unavoidable at four of the five intersections for the regular session and 12 of the 25 intersections for the summer session.

The document also analyzes the likely impacts of UCLA population growth with the 2002 LRDP upon area transit. It concludes that due to on-going and proposed housing programs combined with parking expansions, there will be slightly fewer commuters without parking than there are under existing (Fall 2001) conditions. Therefore, no increase in transit usage to and from the Campus is anticipated to result from implementation of the 2002 LRDP.

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INTRODUCTION

In response to State projections, University of California, Los Angeles (UCLA) is considering the program and space implications of an enrollment increase by the year 2010/2011. Because this increase would exceed the enrollment projections in the 1990 Long Range Development Plan (1990 LRDP), UCLA proposes to update the existing LRDP and prepare an Environmental Impact Report (EIR), as required by Section 21080.09 of the California Environmental Quality Act (CEQA).

The UCLA 2002 LRDP proposes to accommodate anticipated program growth associated with increased enrollment within the remaining development capacity in the 1990 LRDP (of approximately 1.7 million gross square feet) and to maintain the current limits on parking spaces and vehicle trips established in the 1990 LRDP. It is anticipated that the enrollment growth would be accommodated in both the regular session (or academic year) and summer session.

Crain & Associates was retained to conduct a transportation systems analysis to assess the potential impacts of the 2002 LRDP on campus parking demand, vehicle trip generation, alternative transportation modes, and traffic on the local street and regional highway network. This report details existing conditions, projects future traffic conditions (without implementation of the 2002 LRDP) and analyzes the potential impacts of implementation of the 2002 LRDP, including increases in both regular and summer session enrollment.

This study utilizes impact assessment methodologies that are consistent with previous UCLA studies and City of Los Angeles policies with respect to traffic analyses to provide a conservative but accurate assessment of the potential impacts of the 2002 LRDP.

PROJECT DESCRIPTION

UCLA proposes to update the Long Range Development Plan to meet existing program needs, address the academic, administrative and support space requirements associated with an increase in enrollment and an extension of the time horizon, or "build-out" year, of the LRDP from 2005/06 to the 2010/11 academic year. The 2002 LRDP proposes to accommodate future program growth within the remaining development capacity in the 1990 LRDP while maintaining the current limits on parking spaces and vehicle trips established in the 1990 LRDP.

The 1990 LRDP proposed the development of 3.71 million square feet of new development between 1990 and 2005, of which approximately 1.7 million gross square feet of development capacity remains. The 2002 LRDP would reallocate this remaining development capacity among the eight campus land use zones to accommodate anticipated future program needs (associated with current programs and anticipated enrollment growth), in support of the campus mission of instruction, research and public service.

The 2002 LRDP includes population estimates, which project that the overall enrollment growth would be met by a combination of increases in both the regular session, as well as summer session. The 2002 LRDP projects an increase in regular session enrollment between 2001 - 02 and 2010 – 11 of approximately 2,135 students (of which approximately 1,761 would be on campus on an average weekday), and an increase in summer session enrollment of approximately 6,550 students (of which approximately 3,772 would be on campus on an average weekday). Projected changes in campus population for the regular session are shown in Table 1(a), while changes in campus population during the summer session are shown in Table 1(b).

Table 1(a)

Estimated Changes in Campus Population with 2002 LRDP

Regular Session

Population Group	Current (2001-02)	Future (2010-11) With 2002 LRDP	Change
Headcount *(Three-Quarter Average)*			
Students	34,310	36,445	2,135
Faculty/Staff	20,045	21,940	1,895
Average Weekday Population			
Students	28,306	30,067	1,761
Faculty/Staff	17,774	19,439	1,665
Other Individuals	10,558	12,035	1,446
Total	56,668	61,541	4,873

Source: UCLA Capital Programs, April 2002

Table 1(b)

Estimated Changes in Campus Population with 2002 LRDP

Summer Session (2010)

Population Group	Current (2000)[1]	Future With 2002 LRDP	Change
Headcount *(Summer Session Total)*			
Students	10,010	16,560	6,550
Faculty/Staff	17,705	19,746	2,041
Average Weekday Population			
Students	8,979	12,750	3,772
Faculty/Staff	14,706	16,333	1,626
Other Individuals	10,441	12,035	1,594
Total	34,127	41,119	6,992

1. The baseline year for the summer session is academic year 2000–01 in order to account for an increase in summer session enrollment that occurred in the summer of 2001 in response to a State-subsidized program designed to increase summer enrollment.

Source: UCLA Capital Programs, April 2002

To estimate current and future parking demand and trip generation for faculty, staff and students during the regular session, three-quarter average headcount is used in this study. In addition to these population groups, quarterly (or annual) parking permits are also provided to certain other groups, including emeriti faculty, affiliated physicians, vendors, construction workers, and other University guests. Current parking demand and trip generation for this group is based on the actual number of permits. Daily parking permits are also sold, generally to campus visitors, however any individual may purchase a daily permit (on a space available basis), therefore some daily permits may also be purchased by students, faculty or staff (who don't already have a permit). The current parking demand and trip generation for daily parking permits is based on actual permit sales. Future demand for Quarterly Guest/Emeritus permits and Daily Permit Sales was estimated based upon the projected increases in "Other Individuals."

Concurrent with the LRDP, the campus proposes to develop the Northwest Campus Housing Infill project. This project would provide housing for approximately 2,000 undergraduate students to accommodate anticipated enrollment growth, respond to the housing commitment goals of the Student Housing Master Plan 2000-2010, and reduce the number of triple-room occupancies. With the Northwest Campus Housing Infill project, the net effect of the LRDP would be an increase of 2,135 regular session students, of which approximately 1,675 would reside on campus, and 460 would be new commuter students to campus.

ENVIRONMENTAL SETTING

DESCRIPTION OF HIGHWAY AND STREET NETWORK

The site of this study is the area around the UCLA Campus, which is located within the community of Westwood, in the City of Los Angeles, as shown in Figure 1, Site Vicinity Map. The land uses in the Westwood area are a mixture of retail, residential, restaurant, educational, cultural and commercial office uses. Access to and from the area is provided by a well-developed surface street network and by the nearby San Diego (Interstate 405) Freeway and the Santa Monica (Interstate 10) Freeway. A substantial portion of the surface street traffic in the area is "through" traffic, with origins or destinations in the areas of Westwood, Century City, Beverly Hills and/or Santa Monica. The surface streets and freeways in the project area are described below.

Freeways

One of the most important traffic-carrying facilities in the project area is the San Diego Freeway (I-405). This freeway provides regional access throughout and beyond the western portion of Los Angeles County. In the vicinity of the campus, I-405 is a north/south freeway that provides five mixed-flow lanes in each direction. A southbound high-occupancy vehicle (HOV) lane was recently installed (in the Sepulveda pass) north of the campus and a northbound HOV lane has been approved for construction. To the north, the San Diego Freeway merges with the Golden State Freeway (I-5) at Mission Hills. To the south, I-405 passes through Orange County to the City of Irvine where it merges with I-5; the I-5 then extends to San Diego County. The San Diego Freeway also provides direct access to other freeways, including an interchange with the Santa Monica Freeway (I-10) approximately 2.5 miles south of the Campus and with the Ventura Freeway (US Highway 101) approximately seven miles northwest of the Campus. Access to and from the surface street network immediately

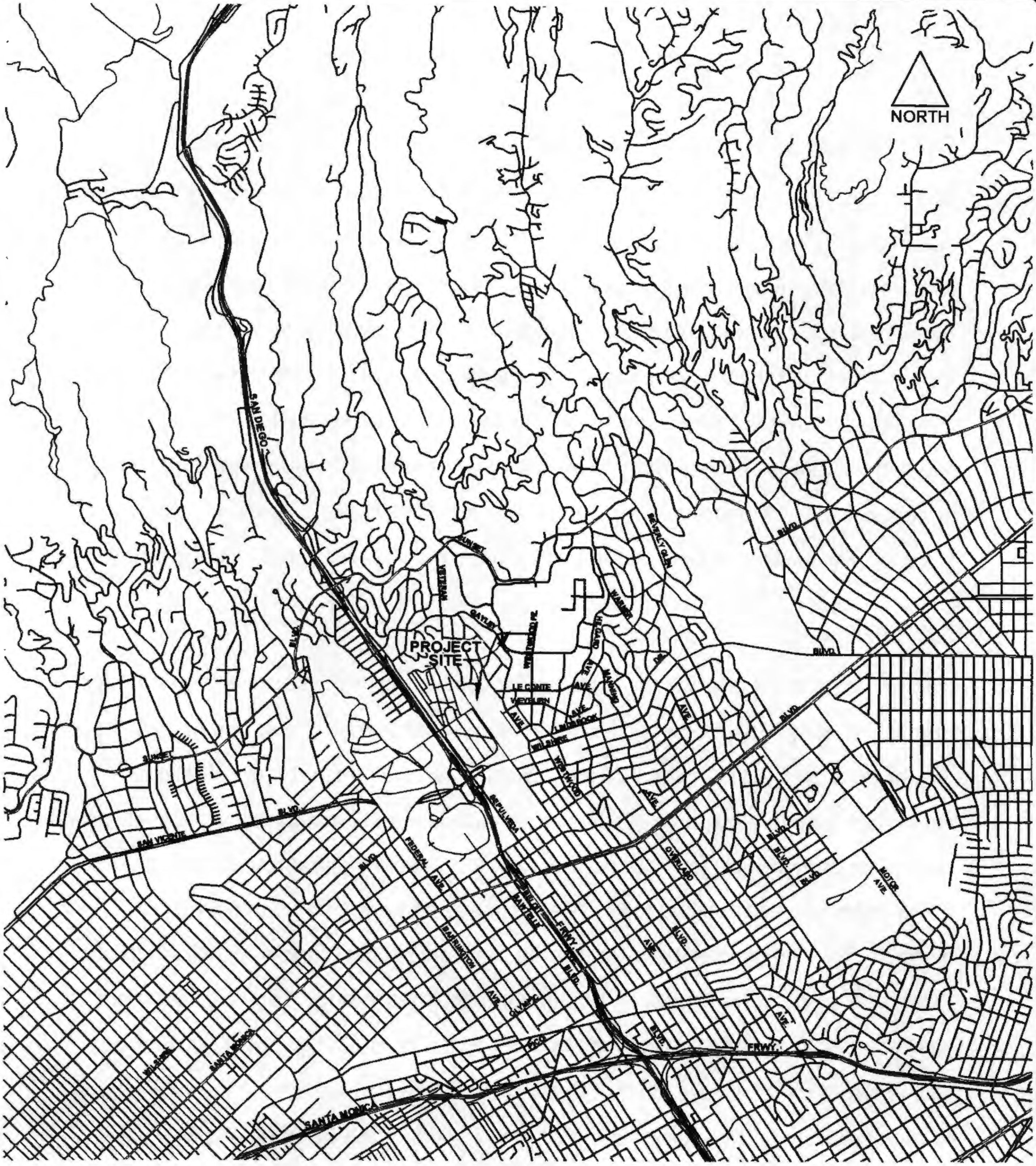

FIGURE 1

FN: UCLALRDP-01-REVISED\SITEVIC

SITE VICINITY MAP

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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 Santa Monica Freeway (I-10) is another important transportation facility located approximately 2.5 miles south of the Campus. This freeway is an east/west facility that provides regional access for Los Angeles County, extending east to San Bernardino and beyond. To the west, I-10 transitions into the Pacific Coast Highway (PCH) in the City of Santa Monica; PCH then extends to the northwest. The Santa Monica Freeway typically provides four through lanes per direction in the vicinity of the campus.

Streets and Highways

- Wilshire Boulevard begins in downtown Los Angeles and traverses westerly through the cities of Los Angeles, Beverly Hills and Santa Monica, terminating near the Pacific Ocean. This arterial is among the most prominent streets in the West Los Angeles area, providing direct access to the commercial establishments along this route, as well as serving as a major thoroughfare between Westside and Downtown Los Angeles. Wilshire Boulevard is also one of the highest capacity surface street routes between the San Diego Freeway and the Century City/Beverly Hills areas. At the San Diego Freeway, Wilshire Boulevard provides full access to both the northbound and southbound freeway facilities.

  Wilshire Boulevard is designated as a major highway throughout its length. West of Glendon Avenue and east of the San Diego Freeway, Wilshire Boulevard provides four westbound and four eastbound through lanes, with left-turn channelization also provided (including double left-turn lanes eastbound at many locations). Within this section, Wilshire Boulevard is generally 105 feet wide.

- Westwood Boulevard is also designated as a major highway facility that runs north-south in the vicinity of the campus. Westwood Boulevard provides two to three through lanes in each direction and left-turn channelization. Westwood Boulevard terminates at Le Conte Avenue where it becomes Westwood Plaza, an internal Campus roadway that provides two to three travel lanes in each direction. This roadway also extends southeasterly past the Santa Monica Freeway where it becomes National Place.

- Sunset Boulevard is 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. Sunset Boulevard also provides the northernmost east/west thoroughfare south of the Santa Monica Mountains through the campus vicinity, and is therefore heavily used by both local and commuter traffic. 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 is a north/south-oriented secondary highway connecting to Sunset Boulevard to the north and merging with Lindbrook Drive to the south. This roadway is the eastern boundary of the UCLA Campus, and provides two travel lanes in each direction. On-street parking is generally permitted, but prohibited on some segments.

- Le Conte Avenue is designated as a secondary highway through the commercial portions of Westwood Village (between Gayley Avenue and Hilgard Avenue), but is 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 is primarily a north/south-oriented secondary highway extending 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 a primary access route for the UCLA Campus, and is striped to provide one to two travel lanes in each direction. On-street parking is allowed along some portions of Gayley Avenue.

- Strathmore Drive is a local street that serves the residential neighborhood west of the Campus. This roadway also serves through traffic from Veteran Avenue to the Campus. East of Gayley Avenue, Strathmore Drive enters Campus and changes names to Strathmore Place, which is a two-lane per direction internal Campus roadway.

- Levering Avenue is a short, northwest-to-southeast oriented local street to the west of the Campus, beginning at Montana Avenue west of Veteran Avenue, and terminating at Glenrock Avenue west of Gayley Avenue. Although this facility is only approximately one-half mile long, its location and orientation make it an alternate route to Montana/Gayley Avenue both into and out of Westwood Village. 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 is 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. At Wilshire Boulevard, the roadway flares to approximately 70 feet in width, to provide additional through lanes as well as left and right-turn channelization in both the northbound and southbound directions. Veteran Avenue provides a primary connection between Sunset and Wilshire Boulevards, as well as access to the UCLA campus.

- Montana Avenue is an east/west oriented collector street. In the study area one lane is provided in each direction. A northbound off-ramp from the Interstate 405 is provided from Montana. On street parking is restricted to permitted vehicles.

- Sepulveda Boulevard is designated as a major highway, which extends northerly to the vicinity of the I-405 and I-5 interchange and southerly to Manhattan Beach where it terminates into Pacific Coast Highway. Sepulveda Boulevard provides two through lanes in each direction in the vicinity of UCLA.

- Church Lane is a frontage road located west of the San Diego Freeway. This roadway extends in a southeast-to-northwest direction from Waterford Street to Sunset Boulevard where it continues and crosses the San Diego Freeway and becomes Ovada Place at Sepulveda 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. Church Lane also provides access to the I-405 southbound ramps located north of Sunset Boulevard.

- Sawtelle Boulevard is a designated secondary highway and 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.

- San Vicente Boulevard is 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.

- Weyburn Avenue is a short 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. Weyburn Avenue generally provides a single travel lane in each direction along with on-street parking on both sides of the street, although two lanes in each direction with no parking are currently provided on the portion of Weyburn Avenue that traverses University property between the Midvale Alley and Veteran Avenue.

- Kinross Avenue is another short local street that runs between Veteran Avenue on the west and Glendon Avenue on the east. This street 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 public through traffic.

- Lindbrook Drive is 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 is a short secondary roadway running between Lindbrook Drive and Le Conte Avenue. South of Weyburn Avenue, Tiverton Avenue is a one-way facility in the northbound direction. On-street parking is allowed on both sides of the street. North of Le Conte Avenue the roadway enters the UCLA Campus and becomes Tiverton Drive.

- Wyton Drive is a local street east of the UCLA Campus. This roadway extends to Circle Drive East, which allows access to the east side of Campus. Wyton Drive provides one lane in each direction between Hilgard Avenue and Beverly Glen Boulevard.

- Westholme Avenue is a local street east of the UCLA Campus. This two lane residential street extends from Santa Monica Boulevard to Hilgard Avenue, where it becomes an internal Campus roadway.

- Manning Avenue is a local street, which serves the residential community east of the Campus. South of Santa Monica Boulevard, Manning Avenue becomes a secondary roadway and terminates at the Santa Monica Freeway off-ramp on National Boulevard. 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.

- Malcolm Avenue is a local street located in the study area east of the Campus. This roadway extends to the east and runs parallel to Hilgard Avenue. Malcolm Avenue also intersects Wilshire Boulevard where it provides one through lane in each direction.

- <u>Beverly Glen Boulevard</u> is a north/south oriented major arterial located approximately 0.5 miles east of the Campus. This roadway extends in a southeast-to-northwest direction from Pico Boulevard southeast of campus to Ventura Boulevard in Sherman Oaks. Two through lanes and left-turn channelization are generally provided in the study area.

- <u>Ohio Avenue</u> is an east-west collector street located to the south of the Campus. This facility is a relatively heavily used roadway for local access, as it provides the only roadway connection across the San Diego Freeway between Wilshire and Santa Monica Boulevards. 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 flaring or parking restrictions allow for left and/or right-turn channelization.

- <u>Santa Monica Boulevard</u> is a designated east-west major arterial that extends from the City of Santa Monica to the Silver Lake area northwest of Downtown Los Angeles. 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. Santa Monica Boulevard consists of two roadways east of Sepulveda Boulevard, generally known as "Big" Santa Monica Boulevard and "Little" Santa Monica Boulevard, which acts essentially as a frontage road. This facility is listed on the CMP road system as part of the CMP roadway network. The City of Los Angeles has an ongoing program to unite "Little" Santa Monica Boulevard with the main roadway and increase capacity.

- Copa De Oro Road is a short local street that intersects Sunset Boulevard and is located across Hilgard Avenue. This roadway serves the residents northeast of the Campus. It provides one lane in each direction.

- 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.

- Bellagio Way is a secondary highway, which 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. To the north, this road connects via Bellagio Road and Chalon Road to Roscomare Road and Mulholland Drive.

- Bel Air Road is also a short local street located north of Sunset Boulevard and aligns with Beverly Glen Boulevard. This road provides one lane in each direction.

- Linda Flora Drive is a short local roadway that intersects Roscomare Road and aligns with Stradella Road. This roadway provides one lane per direction.

- Chalon Road is 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.

- Roscomare Road is a north/south oriented collector roadway located approximately one mile north of the Campus. This roadway extends northerly from Chalon Road and terminates at Mulholland Drive to the north. One lane is provided in each direction.

- <u>Stradella Road</u> is a local street also located to the north of the Campus. This roadway generally extends in a north/south direction. Stradella Road extends from Roscomare Road to Sarbonne Road. This roadway provides one lane in each direction.

- <u>Greendale Drive</u> is a short local street located north of Sunset Boulevard and intersects with Beverly Glen Boulevard. This roadway provides one travel lane per direction.

- <u>Mulholland Drive</u> is 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.

<u>Study Intersections and Freeways</u>

To provide a conservative assessment of the potential traffic and parking impacts of the 2002 LRDP, this document utilizes traffic impact assessment methodologies that are consistent with University and City of Los Angeles policies (Los Angeles Department of Transportation (LADOT), Traffic Study Policies and Procedures, November 1993). To be consistent with the prior analysis for the 1990 LRDP, this analysis incorporates a detailed evaluation of existing and future traffic conditions at the same 52 study intersections that were addressed in the traffic study for the 1990 LRDP. An additional six intersections (including five located north of Sunset Boulevard) are also incorporated in this study, for a total of 58 study intersections. These intersections were added to make certain that all locations with potential significant traffic impacts were analyzed. These study intersections are listed below, with the additional six intersections shown in bold print:

1. Church Lane/Ovada Place and Sepulveda Boulevard

2. San Diego Freeway Southbound On/Off Ramps and Church Lane
3. Sunset Boulevard and Church Lane
4. Sunset Boulevard and San Diego Freeway Northbound On/Off Ramps
5. Sunset Boulevard and Veteran Avenue
6. Sunset Boulevard and Bellagio Way
7. Sunset Boulevard and Westwood Boulevard
8. Sunset Boulevard and Stone Canyon Road
9. Sunset Boulevard and Hilgard Avenue/Copa De Oro Road
10. Sunset Boulevard and Beverly Glen Boulevard
11. Sunset Boulevard (East I/S) and Beverly Glen Boulevard
12. San Diego Freeway Northbound Off Ramp and Sepulveda Boulevard
13. Montana Avenue and Sepulveda Boulevard
14. Montana Avenue and Levering Avenue
15. Montana Avenue/Gayley Avenue and Veteran Avenue
16. Strathmore Place and Gayley Avenue
17. Levering Avenue and Veteran Avenue
18. Wyton Drive and Hilgard Avenue
19. Wyton Drive/Comstock Avenue and Beverly Glen Boulevard
20. Westholme Avenue and Hilgard Avenue
21. Manning Avenue and Hilgard Avenue
22. Le Conte Avenue and Gayley Avenue
23. Le Conte Avenue and Westwood Boulevard
24. Le Conte Avenue and Tiverton Drive
25. Le Conte Avenue and Hilgard Avenue
26. Weyburn Avenue and Gayley Avenue
27. Weyburn Avenue and Westwood Boulevard
28. Weyburn Avenue and Tiverton Drive
29. Weyburn Avenue and Hilgard Avenue

30. Kinross Avenue and Westwood Boulevard
31. Lindbrook Drive and Westwood Boulevard
32. Lindbrook Drive and Tiverton Avenue
33. Constitution Avenue and Sepulveda Boulevard
34. Wilshire Boulevard and San Vicente Boulevard
35. Wilshire Boulevard and Sepulveda Boulevard
36. Wilshire Boulevard and Veteran Avenue
37. Wilshire Boulevard and Gayley Avenue
38. Wilshire Boulevard and Westwood Boulevard
39. Wilshire Boulevard and Glendon Avenue
40. Wilshire Boulevard and Malcolm Avenue
41. Wilshire Boulevard and Westholme Avenue
42. **Wilshire Boulevard and Warner Avenue**
43. Wilshire Boulevard and Beverly Glen Boulevard
44. Ohio Avenue and Sawtelle Boulevard
45. Ohio Avenue and Sepulveda Boulevard
46. Ohio Avenue and Veteran Avenue
47. Ohio Avenue and Westwood Boulevard
48. Santa Monica Boulevard and Sawtelle Boulevard
49. Santa Monica Boulevard and San Diego Freeway (S/B)
50. Santa Monica Boulevard and San Diego Freeway (N/B)
51. Santa Monica Boulevard and Sepulveda Boulevard
52. Santa Monica Boulevard and Veteran Avenue
53. Santa Monica Boulevard and Westwood Boulevard
54. **Roscomare Road and Mulholland Drive**
55. **Roscomare Road and Stradella Road/Linda Flora Drive**
56. **Chalon Road and Bellagio Road**
57. **Beverly Glen Boulevard and Mulholland Drive**

58. Beverly Glen Boulevard and Greendale Drive

All of these study intersections are within the area surrounding the UCLA Campus and are the intersections expected to be most directly affected by the vehicle trips generated by the 2002 LRDP. Figure 2 shows the location of these intersections.

FIGURE 2

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STUDY INTERSECTION LOCATIONS

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The impact analysis in this study also incorporates two freeways, the San Diego (I-405) Freeway and the Santa Monica (I-10) Freeway, for which seven freeway segments within the general project vicinity were examined. These freeway segments are:

1. San Diego Freeway (I-405) south of Santa Monica Freeway
2. San Diego Freeway (I-405) between Santa Monica Freeway and Santa Monica Blvd.
3. San Diego Freeway (I-405) between Wilshire Blvd. and Santa Monica Blvd.
4. San Diego Freeway (I-405) between Sunset Blvd. and Wilshire Blvd.
5. San Diego Freeway (I-405) north of Sunset Blvd.
6. Santa Monica Freeway (I-10) between Bundy Dr. and San Diego Freeway
7. Santa Monica Freeway (I-10) between Overland Ave. and National Blvd.

Existing Traffic Volumes

Counts of existing AM and PM peak period traffic conditions were conducted by Wiltec, a professional data collection company, and Crain & Associates during May and August of 2001 for the 52 original intersections, and winter quarter 2002 when classes were in session for the six added intersections. (Summer traffic volumes for those six intersections were assumed to be the same as during regular session.) The counts were conducted manually at each of the 58 study intersections, where count personnel tracked the number of vehicles making each possible turning movement. The peak-hour traffic volumes for each intersection were then determined for analysis purposes by finding the four highest consecutive 15-minute volumes for all movements combined. This procedure provides the highest existing volumes, as it is based on the peak hour for each intersection independent of other intersections. The existing peak hour traffic volumes for the 58 study intersections are shown in Figures 3(a) and 3(b) for the regular school session and in Figures 4(a) and 4(b) for the summer session.

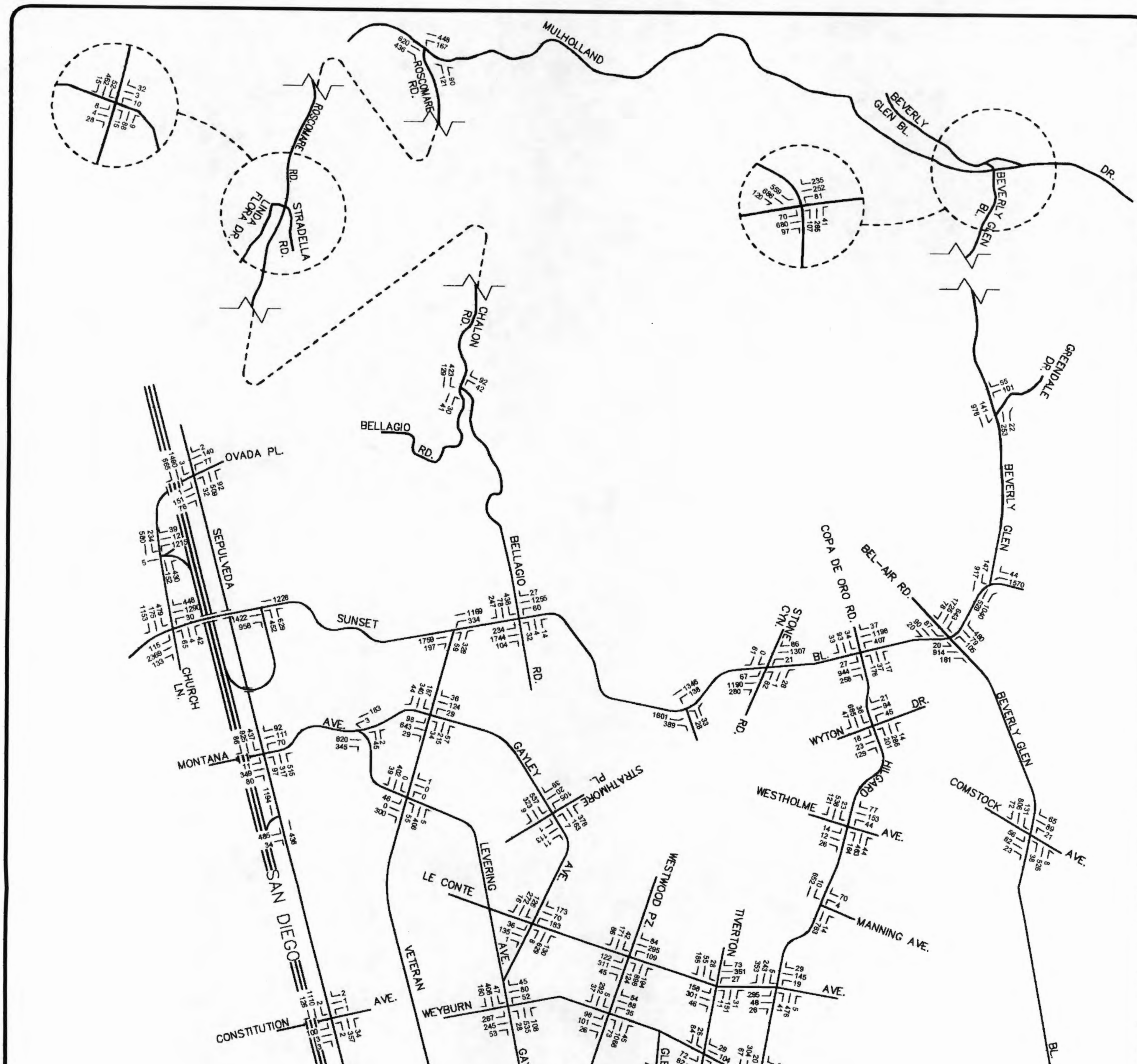

FIGURE 3(a)

UCLALRDP-01-REVISED\AM2001-SCHOOL

EXISTING (2001) TRAFFIC VOLUMES (REGULAR SESSION) AM PEAK HOUR

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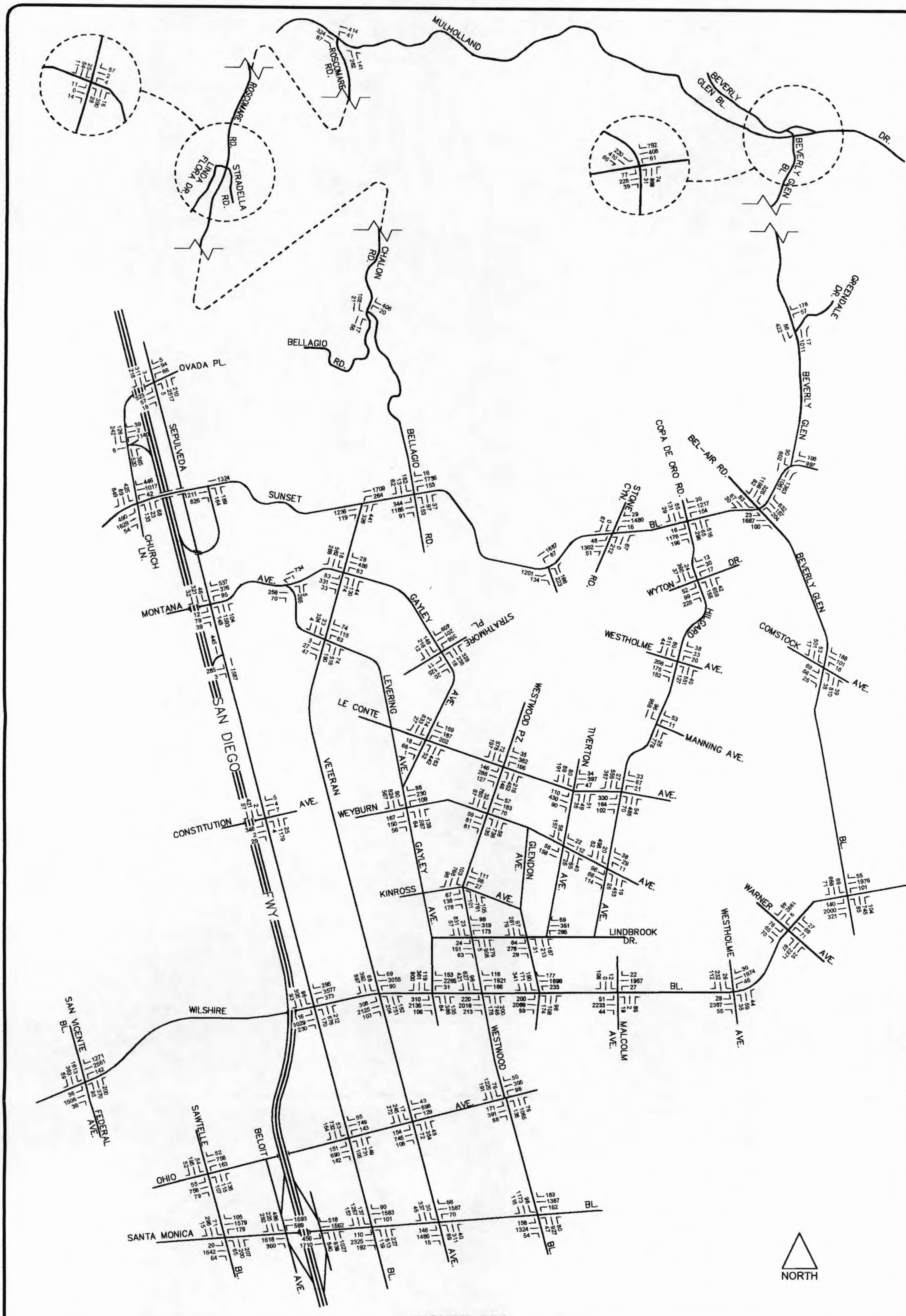

FIGURE 3(b)

UCLALRDP–01–REVISED\PM2001–SCHOOL

EXISTING (2001) TRAFFIC VOLUMES
(REGULAR SESSION)
PM PEAK HOUR

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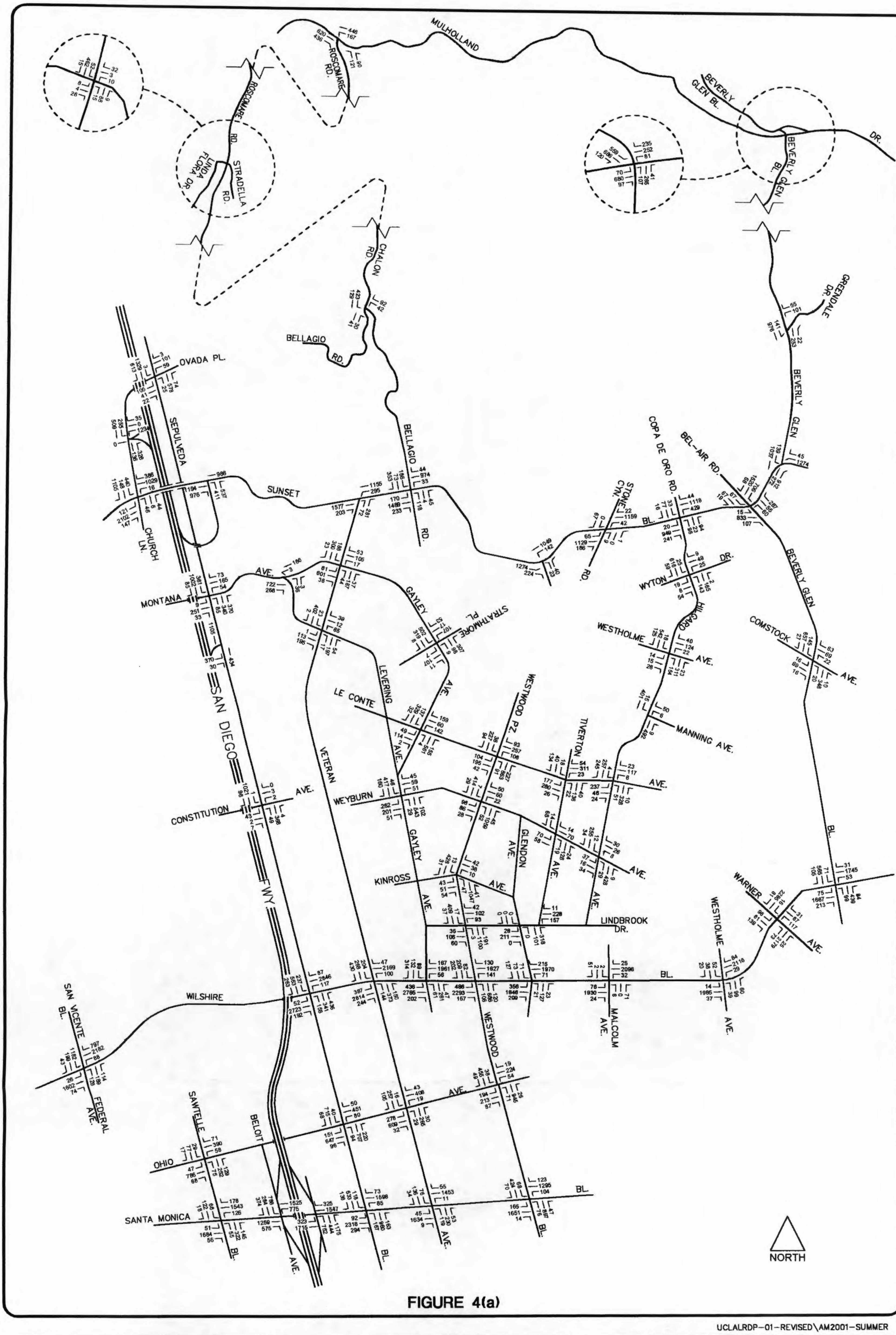

FIGURE 4(a)

UCLALRDP-01-REVISED\AM2001-SUMMER

EXISTING (2001) TRAFFIC VOLUMES
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AM PEAK HOUR

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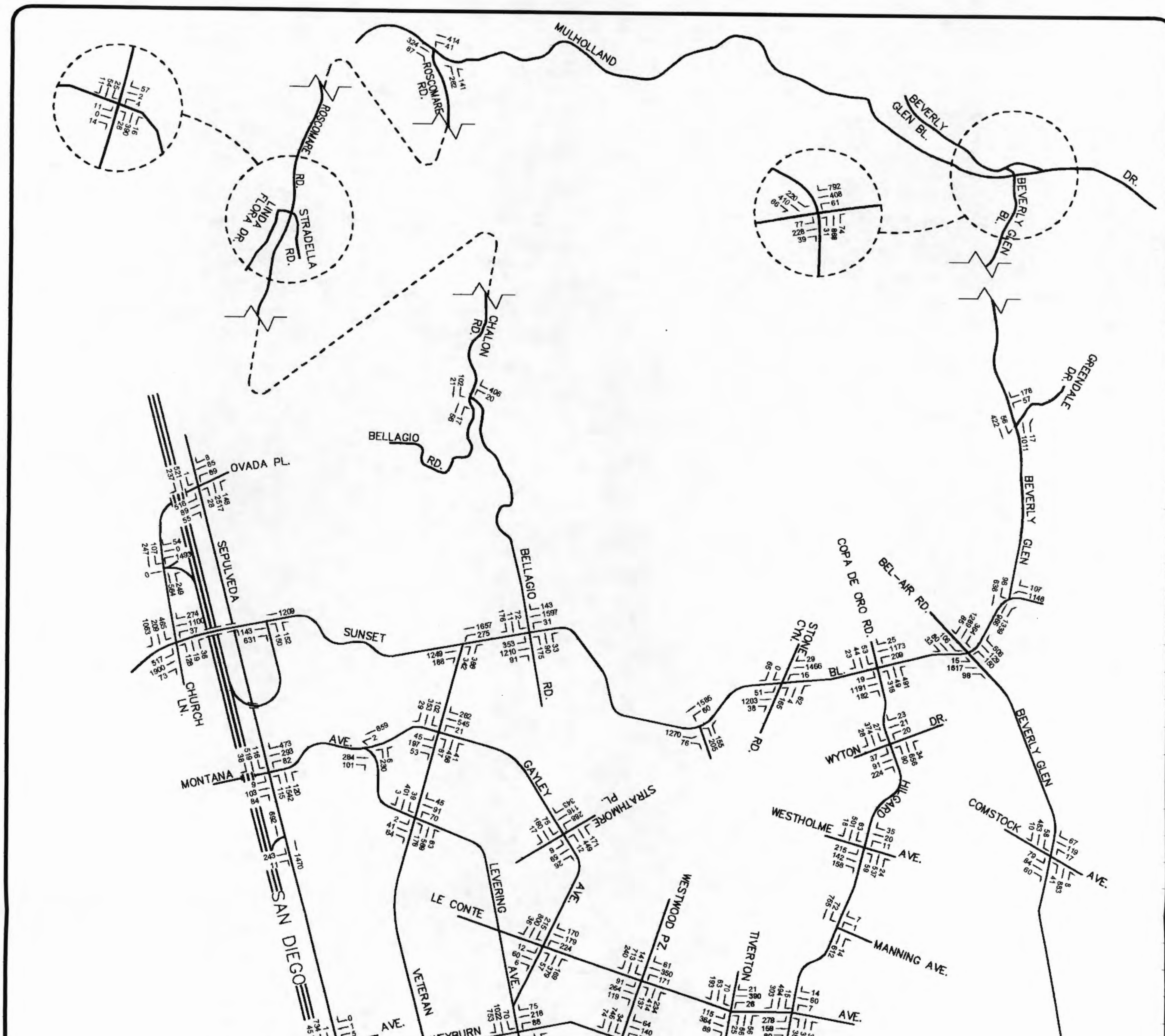

FIGURE 4(b)

UCLALRDP–01–REVISED\PM2001–SUMMER

EXISTING (2001) TRAFFIC VOLUMES
(SUMMER)
PM PEAK HOUR

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ALTERNATIVE TRANSPORTATION

The UCLA Campus is generally well served by alternative modes of transportation. 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 to other off-campus locations. UCLA has also implemented a Transportation Demand Management (TDM) Program which 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 19 bus routes through the Westwood area by way of Le Conte Avenue, Hilgard Avenue, Gayley Avenue Wilshire Boulevard, or Westwood Boulevard. All 19 routes stop within short walking distance of Campus or a UCLA-operated Express Shuttle stop. These 19 bus lines, which are described in greater detail in Appendix A, 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 good transit service to much of the Los Angeles region. Figure 5 shows the public transit routes serving the UCLA Campus.

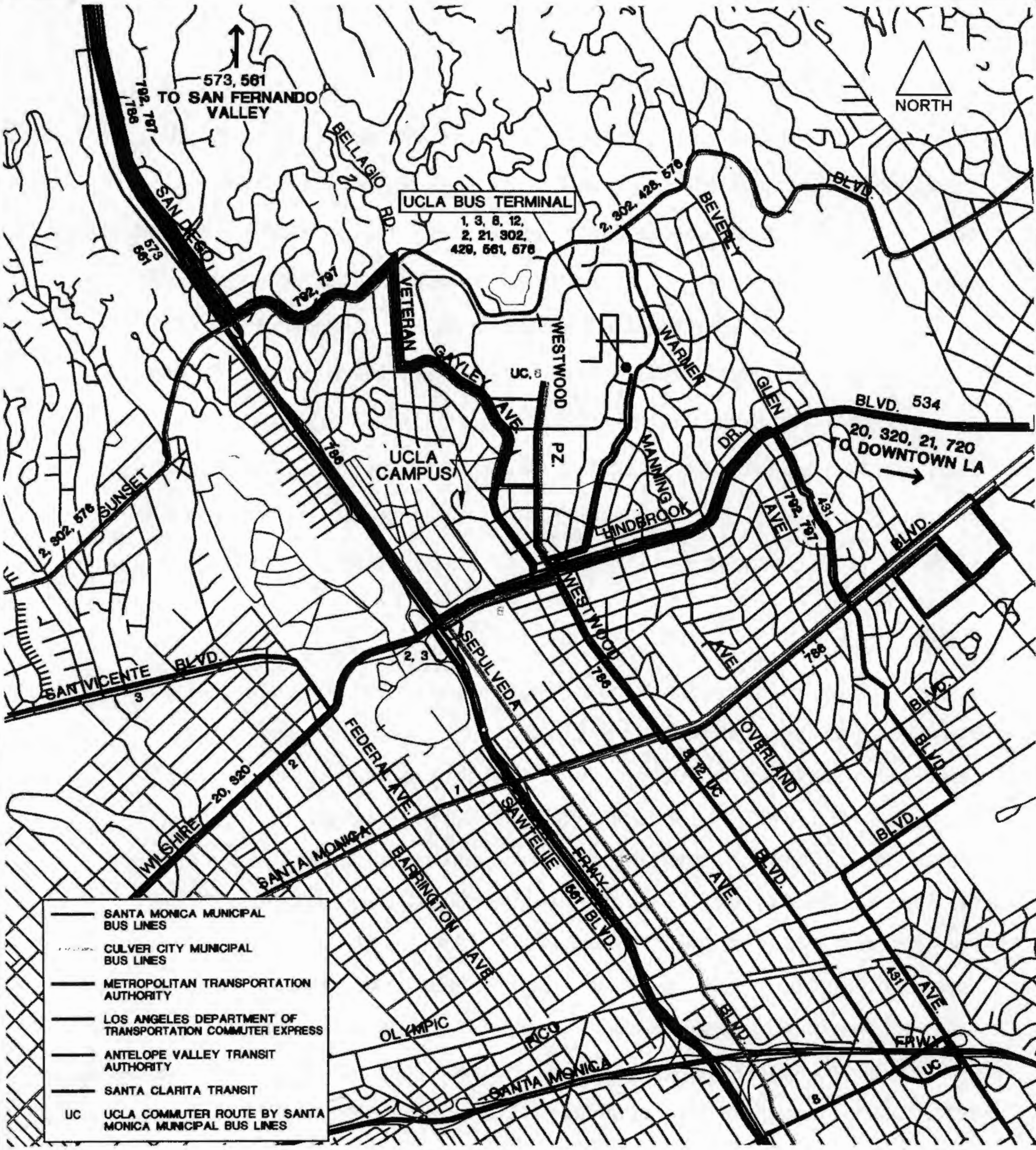

FIGURE 5

FN: UCLALRDP-01-REVISED\BUS ROUTES

PUBLIC TRANSIT ROUTES

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As shown in Table 2(a), both Line 12 operated by Santa Monica Municipal Bus Lines and Culver City Bus Line 6 are above their seating capacity during the AM and PM peak periods. However, all routes have standing room available. No data was available for the Los Angeles Department of Transportation bus lines, the Antelope Valley Transit Authority bus line and the Santa Clarita Transit bus lines as these are commuter buses.

Table 2(a)
Current Estimated Bus Capacity
SMMBL & Culver City Lines Serving UCLA

AM PEAK (to UCLA)

Route	Total Load	No. of Buses	Seats Available* (40 per Bus)	% of Seats Occupied	Total Capacity* (60 per Bus)	% of Total Capacity Occupied
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
CCB 6	416	10	400	104.0	600	69.3

PM PEAK (from UCLA)

Route	Total Load	No. of Buses	Seats Available (40 per Bus)	% of Seats Occupied	Total Capacity (60 per Bus)	% of Total Capacity Occupied
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
CCB 6	402	10	400	100.5	600	67.0

* 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.

Although additional service on these routes would reduce standees, it appears that current total capacity is generally sufficient to meet demand.

In general, the MTA services to Westwood have substantial available capacity, as shown in Table 2(b). Based on MTA-provided data (which does not include data for the AM or PM 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.

Table 2(b)
Current Estimated Bus Capacity
MTA Lines Serving Westwood

WEEKDAY (to/from Westwood)

Route	Direction	Peak Bus Stop	Avg. No. of Seats Occupied	% of Total Occupied
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)*	19.0	31.7
576	West/South	Gayley and Landfair (west jog)**	24.5	40.8
720	East	Westwood and Wilshire	28.5	47.5
720	West	Westwood and Wilshire	24.6	40.9

* Also has the same average of 19.0 seats occupied at LeConte and Gayley.

** Also has the same average of 24.5 seats occupied at Gayley and Landfair (east jog), Gayley and Strathmore, Gayley and Veteran, LeConte and Gayley, and LeConte and Westwood.

Source: Metropolitan Transit Authority, Winter, 2002

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 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. 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 South Coast Air Quality Management District (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 employees to determine Average Vehicle Ridership[1] (AVR), the TDM program increased the campus-wide AVR from 1.26 to 1.51 by the Spring of 2000, exceeding the goal of 1.5 set by the SCAQMD. Even 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 maintain achievement of its required goals, so long as the overall effectiveness of the Program is not compromised. A description of the 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, the Commuter Guide gives a full explanation of carpooling to UCLA, including an explanation of the convenience and money-saving options of carpool parking permits, (which are currently reduced from $48 to $42 for two-person carpools and $30 for three-person carpools). Information on how to receive a customized 'RideGuide', which aids commuters in finding other people to ride with, is located at the end of the Commuter Guide, including a RideGuide request form. A custom RideGuide not only provides a list of potential car-poolers, 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

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

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.

Campus Transit

In addition to the public transit routes described above, the campus also provides shuttle bus service around the campus and from several remote housing facilities. The SCAQMD gave UCLA an Honorable Mention Award in 2000 for its fleet of clean-operating CNG transit buses. The routes covered are described below.

• *UCLA Campus Express*

UCLA currently operates two Campus Express routes which serve the main and Southwest campus which are in service Monday through Friday from 7:00 AM to 6:00 PM and provide approximately 10-minute headways throughout the day.

• *Northwest Campus Shuttle*

The Northwest Campus Shuttle operates on school days between 11:30 AM and 2:00 PM on approximately 30-minute headways. This shuttle travels between Macgowan Hall (the terminus of the Campus Express routes), the Child Care Center, the dormitories and the Southern Regional Library Facility.

• *Medical Center Shuttle*

The Medical Center Shuttle is a courtesy service provided to patients at the UCLA Medical Center. This shuttle operates between 7:30 AM and 6:30 PM, and serves campus Medical Center facilities on 15 to 20-minute headways.

• *University Apartments Shuttle*

This shuttle provides weekday service between Campus and the University Apartments that are located on Venice Boulevard at Barry Avenue, and between Mentone and Keystone Avenues. Only tenants of the University Apartments are eligible to ride this service. The shuttle generally provides hourly headways between 7:00 AM and 10:30 PM during the regular session. Once on Campus, the shuttle serves Ackerman Union, the Life Sciences Building and Murphy Hall.

<u>Emergency Ride Home</u>

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.

<u>Bicycles</u>

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 Men's Gym and Kaufman Hall. The campus continues to work with agencies, such as Los Angeles County Metropolitan Transportation Authority (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.

Electric Vehicles

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.

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 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.

On-Campus Housing

Another campus-wide development objective articulated in the 1990 LRDP relates to the provision of on-campus housing, in part, as a component of transportation management. The 1990 LRDP incorporated the Student Housing Master Plan goal aimed at providing housing for 50 percent of the student population in University-owned or private sector housing within one-mile of campus. In support of this goal, the 1990 LRDP adopted a mitigation measure to provide additional housing in the southwest zone of the campus. The Southwest Campus Housing project, which was recently approved by The Regents, will begin construction this year. 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.

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.

To explore the effectiveness of a transit fare subsidy in reducing the parking demand, the campus prepared and transmitted a Request for Information (RFI) in 1998 to the local public transit providers (the Santa Monica Municipal Bus Lines, the Metropolitan Transportation Authority, Culver City Municipal Bus Lines, and the Los Angeles Department of Transportation) to gauge interest in conducting a pilot transit fare subsidy program. Although some of the service providers expressed interest, the MTA indicated that it would not participate in a pilot transit pass program because it already offers a college/vocational student pass. The Culver City Municipal Bus Lines and the Los Angeles Department of Transportation indicated that they were not prepared to provide a complete response to the RFI pending resolution of various issues, including the need to acquire the necessary technology (e.g., “card readers”) and the financial implications associated with a fare discount based on the promise of volume ridership.

BruinGo was collaboratively launched by UCLA and the Santa Monica Municipal Bus Lines at the beginning of academic year 2000-2001 to provide fare-free 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.

Campus Parking and Trip Generation

A commuter's decision on whether or not to drive a personal motor vehicle is usually predicated upon their being able to reliably find an affordable parking space upon reaching their destination. This includes UCLA commuters traveling to Campus. In order to control trips to UCLA, two direct parking measures are used. First, parking fees are set to fully recover the cost of constructing and operating parking at UCLA. Second, permits to commuter students are issued on a space available basis. Students able to demonstrate the highest need (e.g. an off-campus job) are given the first opportunity to purchase a parking permit. Thus, at UCLA, trip generation is based not only on the population, but also on the parking supply that serves the Campus. The following section analyzes the parking availability under the 2002 LRDP and the resulting trip generation.

Parking Supply

As shown in Table 3, the UCLA Campus currently has approximately 21,020 marked parking spaces and 1,310 stack parking spaces. More than 19,400, or 87 percent, of these spaces are provided in structures. UCLA records also show that about 324 spaces (1.5 percent) have meters, 224 spaces (1.0 percent) are loading zones, and the remainder of 21,782 spaces requires daily or monthly permits. Thus, although UCLA has reservoir of about 22,330 parking spaces, these spaces are tightly controlled with over 97 percent requiring daily or longer permits, and these permits are only issued on a space available basis.

Figure 6 shows the location of the parking areas. As is shown by this figure, the major parking structures are located in the Core, Central, and Health Science zones of the main campus. Limited structure parking is also provided in the Northwest (residential) and Southwest zones of the Campus.

Table 3
Current (Fall Quarter, 2001) UCLA Parking Inventory

Structures	Marked Spaces	Stacked Parking	Total Parking
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
CHS/G/MC	1,075	-	1,075
E/ER	155	-	155
MB/MP	1,144	-	1,144
RC	147	-	147
Sproul Hall	64	-	64
SV	722	-	722
Structure Subtotal	18,101	1,310	19,411
Surface Lots			
Northwest (10, 11, 13, 15, 17, Dystra/Bradley, Hedrick, Rieber & Sproul)	872	-	872
Central (A, Dickson Court, Fowler Dock & J)	306	-	306
North (AGSM meters & 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. UnEx)	40	-	40
Surface Lots Subtotal	2,598	-	2,598
Streets	321	-	321
Parking Inventory Total	21,020	1,310	22,330

UCLA Parking Areas

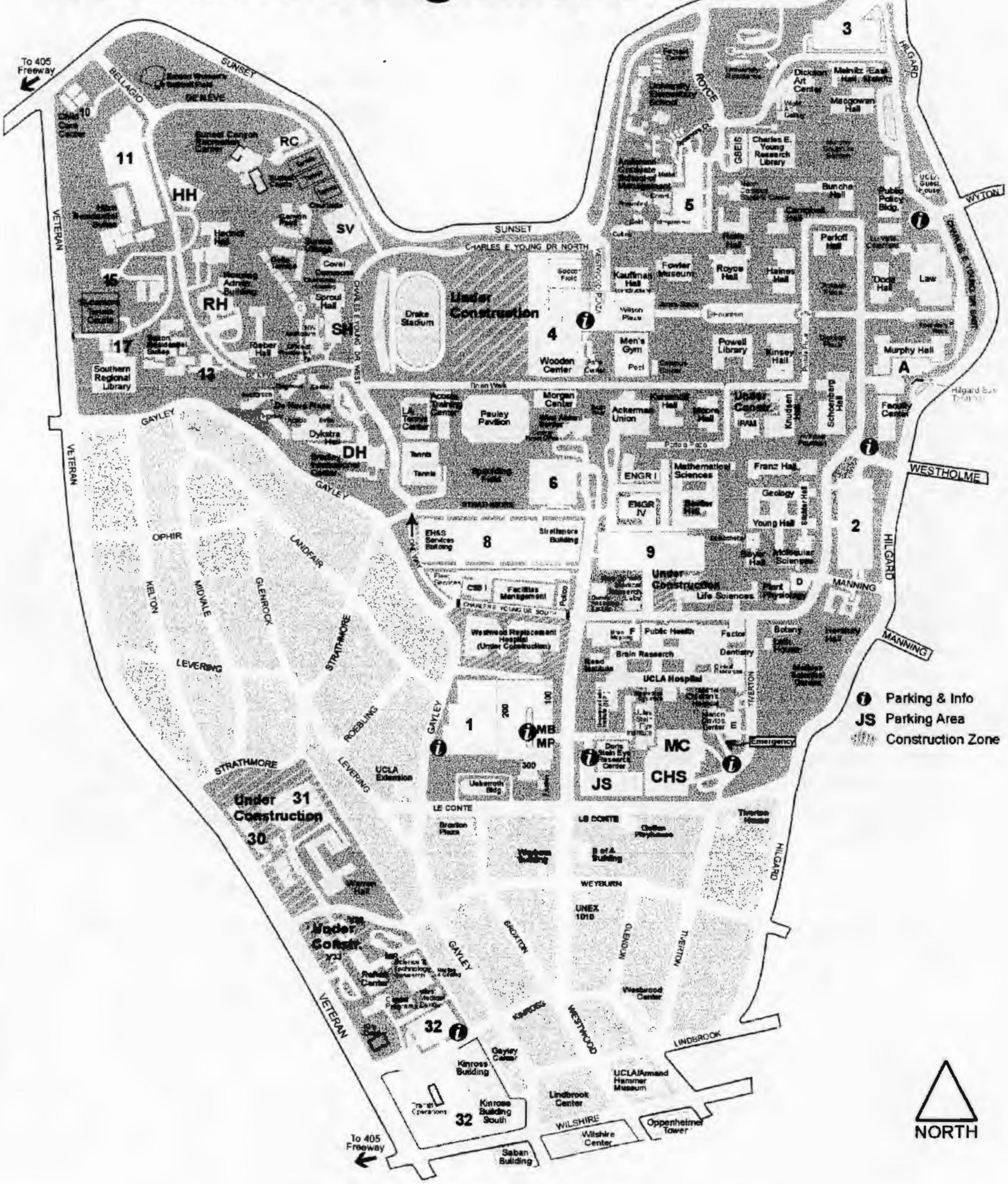

FIGURE 6

FN: UCLALRDP-01-REVISED\CAMPUS PARKING LOC

CAMPUS PARKING FACILITY LOCATIONS

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning • Traffic Engineering

The Wilshire Center located at 10920 Wilshire Boulevard, was acquired by UCLA in 1992 and currently accommodates various administrative units that were previously located in other leased space in Westwood Village. As the building was constructed in 1981, the traffic impacts of the building had been included in the Westwood Village traffic long before it was acquired by UCLA. Furthermore, the traffic impacts of the building were included in the cumulative baseline for the 1990 LRDP EIR traffic analysis. The Wilshire Center is not within the LRDP boundary and therefore the Wilshire Center parking is not included in the on-campus parking inventory. However, in accordance with the Trip Mitigation Monitoring Agreement between UCLA and the City of Los Angeles, the additional trips generated by the UCLA occupants of the Wilshire Center not generated in 1990 are included in the campus vehicle trip generation cordon count conducted on an annual basis. For analytical purposes, the UCLA employees that occupy the Wilshire Center and other off-campus leased space are conservatively included in the population estimates for the 2002 LRDP traffic study.

Parking Allocation

Use of the parking spaces on the UCLA Campus is controlled through a permit system. Employees (who work more than 49 percent time) are eligible to purchase a parking permit, and approximately 83 percent currently exercise this option. 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 allocated based on institutional priorities, to students with disabilities, certain highly recruited scholars, scholarship athletes, and teaching and research assistants. Additional spaces are allocated to resident students.

The remainder of on-campus parking spaces are allocated to commuter students, which currently results in permits being awarded to approximately 28.3 percent of commuter students (during regular session). Student permits are issued on a need-based point system. Students with off-campus jobs or other special circumstances are given higher priority to purchase permits. Those students most able to use other modes of transportation (e.g., live close to campus) are given the lowest priority.

The availability of student permits varies from year to year, based on the total parking inventory, participation in carpools, vanpools and other alternative transportation modes and the allocation of spaces to faculty/staff, and university guests and visitors. Because student demand typically exceeds the available supply, a waiting list for student parking occurs each year during the regular session. Historically, the waiting list for parking has varied substantially from year-to-year, and throughout the academic year. Typically the waiting list is greatest in the fall, and generally declines through the winter and into the spring. Historically, there has been no waiting list for student parking in the summer. As of Fall 2001, the student waiting list for parking was approximately 3,300 students.

Table 4(a) summarizes the current allocation of parking spaces to the various campus user groups (in the Fall, when parking demand is greatest). Table 4(b) provides parking space allocations for summer. As shown in Table 4(a), the total number of permits issued is greater than the number of spaces because at any given time a portion of faculty, staff and students (with parking permits) are not on-campus (e.g. because of variable student class schedules, staff vacation, or faculty sabbaticals) or may have traveled to campus using an alternative mode.

Table 4(a)
Current (Fall 2001) Regular Session Parking Allocation

Permit Group	Number	Parking Permits	Total Parking Spaces
Faculty & Staff-Medical Center	5,617	4,655	3,329
Faculty & Staff-Other University	12,986	10,186	7,341
Resident Students			
Undergraduate	7,334	839	559
Commuter Students			
Student Academic Employee	4,005	2,578	1,853
Other Commuter Students	22,971	6,498	3,952
Quarterly Guest/Emeritus Permits	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*

Table 4(b)
Current (2000) Summer Session Parking Allocation

Permit Group	Number	Parking Permits	Total Parking Spaces
Faculty & Staff-Medical Center	5,617	4,655	3,329
Faculty & Staff-Other University	12,986	10,186	7,341
Resident Students			
Undergraduate	715	223	149
Daily Conference Attendees	1,395	697	433
Commuter Students			
Student Academic Employee	2,562	1,649	1,185
Other Commuter Students	7,796	2,934	1,784
Quarterly Guest/Emeritus Permits	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	--	--	2,813
Total		37,045*	22,330*

* Does not include Wilshire Center parking permits or supply.

Using the parking allocation ratios for each group, and the population for that group, per-person permit and parking space ratios can be developed, as shown in Table 4(c)

Table 4(c)
Current (Fall 2001 and Summer 2001) UCLA Parking Allocation Ratios

Permit Group	Permits per Person	Spaces per Person
Faculty & Staff-Medical Center	0.829	0.593
Faculty & Staff-Other University	0.784	0.565
Resident Students		
Undergraduate*	0.114	0.076
Commuter Students		
Student Academic Employee	0.644	0.463
Other Commuter Students*	0.283	0.172
Quarterly Guest/Emeritus Permits	1.000	0.450
University Extension Permits	1.000	0.000
Daily Permit Sales	1.000	0.357

* Because more parking spaces are available during the summer, these ratios are higher for commuter students. Permits per person during the summer are 0.312 for undergraduate resident students and 0.376 for other commuter students and spaces per person are 0.208 and 0.229, respectively.

Campus Vehicle Trips

In conjunction with the adoption of the 1990 LRDP, the University entered into a Transportation Mitigation Monitoring Agreement (TMMA) with the City of Los Angeles, which limits the total number of vehicle trips that can be generated over the 15-year planning horizon of the 1990 LRDP to 139,500 average daily vehicle trips (this limit is codified as LRDP Mitigation Measure C-1.5). To determine the annual status of UCLA Campus trip generation, UCLA conducts a weeklong count of vehicles entering and exiting the UCLA Campus during the third week of October. This week was chosen as it represents a heavy generating week during the regular session. This "Cordon Count" is conducted via a mixture of electronic, mechanical, and manual means (e.g., magnetic road loops, rubber hose counting systems, and persons recording trips at individual intersections and driveways). As a result, all trips entering and exiting the Campus and the Wilshire Center are recorded, including those trips associated with pass-through traffic (e.g., non-UCLA vehicles traversing the Campus to travel from one location to another).

As shown in Table 5 below, total average daily trip generation for the UCLA Campus has varied since the 1990 LRDP, but has remained well below the LRDP trip cap. (This information, along with data on AM and PM peak periods, is presented graphically in Appendix B of this study.) For the Fall 2001, the Campus generated approximately 121,799 daily vehicle trips during the regular session [as detailed in Table 8(a)]. Approximately 108,325 trips per day occurred during the summer of 2000 [as detailed in Table 8(b)].

Table 5
Historical Campus Vehicle Trip Generation
(Average Daily Trips)

1990	123,135
1991	124,011
1992	119,792
1993	122,073
1994	108,133
1995	110,796
1996	113,406
1997	117,820
1998	115,067
1999	114,233
2000	113,436
2001	121,799

Source: Annual UCLA Cordon Counts

Campus Trip Generation Rates

In order to estimate future vehicle trips, and provide an estimate of the relative contribution of parking groups (e.g., faculty/staff, students, resident students and commuter students) to the overall trip generation for the campus, current trip generation rates were developed. These rates are based upon traffic counts from the Fall 2001 Cordon Count study conducted for UCLA and counts conducted during the 1999/2000 and 2000/01 academic years of trips in and out of individual UCLA parking structures.

Counts at individual parking lots and structures were conducted and linear regressions were utilized to disaggregate parking spaces among the various population (or user) groups within each parking lot or structure. The linear regressions compared the total inbound and outbound trips at each time of day to the permits that were issued for that parking structure. In that way a number of trips per permit could be determined for each student and employee user group. The number of cars parked in each area was also determined from this data. Daily permit sales and parking meter revenue data were analyzed to determine the trip generation characteristics of other population segments, such as medical center patients and campus visitors. The results of this analysis are shown in Table 6.

Table 6
Current Vehicle Trip Rates Per Space

Permit Group	Daily	AM Peak Hour[1]	PM Peak Hour[2]
Faculty & Staff-Medical Center	2.538	0.320	0.329
Faculty & Staff-Other University	3.293	0.289	0.383
Resident Students			
Undergraduate	2.444	0.034	0.202
Commuter Students			
Student Academic Employee	2.913	0.304	0.356
Other Commuter Students	3.716	0.247	0.334
Quarterly Guest/Emeritus Permits	3.789	0.400	0.198
University Extension Permits	--	--	--
Daily Permit Sales	8.546[3]	0.493	0.432

1. The AM Peak Hour is the highest 1 hour period between 7:00 and 9:00 AM.
2. The PM Peak Hour is the highest 1 hour period between 4:00 and 6:00 PM.
3. Because of the high turnover associated with visitor parking, those spaces allocated to visitor parking generate approximately 8.5 vehicle trips per day.

As shown in this table, differences in trip generation characteristics were identified for general campus and health sciences faculty and staff. Therefore, for the purposes of this study, separate groups were established and are utilized in the analysis of current and future parking and trip rates.

Utilizing current campus population numbers (for each user group), vehicle trip rates (per space) were converted into a per-person trip rate, which is shown on Table 7. It should be noted that the per-person trip rate for commuter students will vary with the supply of student parking. If more parking spaces become available to meet student demand, the per-person rate would increase. Similarly, if the number of available spaces goes down, the per-person commuter student trip rate would decline. Because parking allocations for the other population groups is anticipated to be generally stable (over the planning horizon of the 2002 LRDP), and because the total supply of parking is limited by the parking cap of 25,169 spaces, the per-person trip rates for other groups are not anticipated to vary substantially.

Table 7
Current Vehicle Trip Rates Per Person

	Regular Session			Summer Session		
Permit Group	**Daily**	**AM Peak Hour**	**PM Peak Hour**	**Daily**	**AM Peak Hour**	**PM Peak Hour**
Faculty & Staff-Medical Center	1.504	0.190	0.195	1.354	0.171	0.175
Faculty & Staff-Other University	1.861	0.163	0.216	1.675	0.147	0.195
Resident Students						
Undergraduate	0.186	0.003	0.015	0.508	0.007	0.042
Daily Conference Attendees*	--	--	--	0.814	0.011	0.067
Commuter Students						
Student Academic 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
Quarterly Guest/Emeritus Permits	1.705	0.180	0.089	1.705	0.180	0.089
University Extension Permits	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

* On-campus bed spaces and parking permits are available for conference attendees only during the summer. Daily permit sales include other conference attendees.

Using the above trip rates and current parking allocations, an estimate of how each population group contributes to overall campus trip generation was developed, which is provided in Table 8(a). 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 two-wheeled vehicles, and through traffic and drop-off trips.

For an estimate of summer trips [shown in Table 8(b)], 90 percent of the generation rates for the regular session were used for the faculty and staff population groups. The reduction accounts for faculty with nine-month appointments who don't conduct research on campus during the summer, and similarly lower employment levels for certain staff (e.g., food service employees). The lower number of student trips (compared to regular session) reflect the fewer number of students that are on-campus during the summer.

Table 8(a)
Estimated Current Vehicle Trip Generation
(Regular Session)

Permit Group	Daily	AM Peak Hour	PM Peak Hour
Faculty & Staff			
General Campus	24,172	2,119	2,811
Health Sciences	8,449	1,066	1,094
Resident Students			
Undergraduate	1,366	19	113
Commuter Students			
Student Academic 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	-	-
Daily Permit Sales	18,768	1,083	948
Other Parking (e.g. meters)	3,931	85	328
2-Wheel Vehicles/Thru Vehicles/Drop-offs	22,042	1,345	1,169
Campus Shuttles	2,948	229	245
Main/Southwest Campus Total	119,741	8,505	9,191
Wilshire Center	2,058	155	206
Cordon Total	121,799	8,660	9,397

Table 8(b)
Estimated Current Vehicle Trip Generation
(Summer Session)

Permit Group	Daily	AM Peak Hour	PM Peak Hour
Faculty & Staff			
General Campus	21,755	1,907	2,530
Health Sciences	7,604	959	985
Resident Students			
Undergraduate	363	5	30
Day's Conference Attendees	1,135	16	94
Commuter Students			
Student Academic Employee	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	-	-
Daily Permit Sales	18,768	1,083	948
Other Parking (e.g. meters)	3,931	85	328
2-Wheel Vehicles/Thru Vehicles/Drop-offs	22,042	1,345	1,169
Campus Shuttles	2,948	229	245
Main/Southwest Campus	106,267	7,414	7,809
Wilshire Center	2,058	155	206
Cordon Total	108,325	7,569	8,015

EXISTING TRAFFIC CONDITIONS

Analysis of Existing Traffic Conditions

A detailed analysis of current traffic conditions was performed of the 58 study intersections in the vicinity of the Campus. An analysis of current traffic conditions was also conducted for seven freeway segments along the San Diego Freeway (I-405) and the Santa Monica Freeway (I-10).

The methodology used in this study for the analysis and evaluation of traffic operations at each study intersection is based on procedures outlined in Circular Number 212 of the Transportation Research Board.[2] In the discussion of Critical Movement Analyses for signalized intersections, procedures are outlined for determining operating characteristics of an intersection in terms of the Level of Service provided for different levels of traffic volume and other variables, such as the number of traffic signal phases. The term "Level of Service" describes the quality of traffic flow. Levels of Service A to C operate quite well. Level D typically is the level for which a metropolitan area street system is designed. Level E represents volumes at or near the capacity of the highway, which will result in possible stoppages of momentary duration and fairly unstable flow. Level F occurs when a facility is overloaded, and is characterized by stop-and-go traffic with stoppages of long duration.

A determination of the Level of Service ("LOS") at an intersection, where traffic volumes are known or have been projected, can be obtained through a summation of the critical movement volumes at that intersection. Once the sum of critical movement volumes has been obtained, the values indicated in Table 9 can be used to determine the applicable Level of Service.

---

2 Interim Materials on Highway Capacity, Circular Number 212, Transportation Research Board, Washington, D.C., 1980.

Table 9
Critical Movement Volume Ranges
For Determining Levels of Service*

Level of Service	Maximum Sum of Critical Volumes (VPH) Two Phase	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---------------		

* For planning applications only, i.e., not appropriate for operations and design applications.

Capacity is defined herein to represent the maximum total hourly movement volume which 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 9. The Critical Movement Analysis ("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 10.

Table 10
Level of Service
As a Function of CMA Values

Level of Service	Range of CMA Values
A	<= 0.60
B	0.601 - 0.700
C	0.701 - 0.800
D	0.801 - 0.900
E	0.901 - 1.000
F	>1.000

By applying this analysis procedure to the study intersections, the CMA values and the corresponding LOS values for the existing regular session and summer traffic conditions were determined. Those values, for existing, AM and PM peak hour conditions (year 2001), are shown in Table 11 for traffic conditions during the regular session and Table 12 for traffic conditions during the summer.

As the values in Table 11 indicate, 39 of the 58 study intersections during the regular session are presently operating at Levels of Service A to D during both peak hour periods. Similarly, Table 12 shows that 44 study intersections are operating at LOS D or better during both peak hour periods in the summer. Those study intersections that are operating at LOS E or F at one or both of the peak hours are located along Church Lane, Sunset Boulevard, Montana Avenue, Wilshire Boulevard, Ohio Avenue, Santa Monica Boulevard and Mulholland Drive.

Table 11
Critical Movement Analysis Summary
Existing (2001) Traffic Conditions During Regular Session

Intersection		AM Peak Hour CMA	AM Peak Hour LOS	PM Peak Hour CMA	PM Peak Hour LOS
1.	Church Ln. / Ovada Pl. and Sepulveda Blvd.	0.925	E	0.960	E
2.	San Diego Fwy S/B On/Off Ramps and Church Ln.	0.950	E	0.953	E
3.	Sunset Blvd. and Church Ln.	0.884	D	0.814	D
4.	Sunset Blvd. and San Diego Fwy N/B On/Off Ramps	0.823	D	0.544	A
5.	Sunset Blvd. and Veteran Ave.	0.892	D	0.820	D
6.	Sunset Blvd. and Bellagio Way	0.941	E	1.008	F
7.	Sunset Blvd. and Westwood Blvd.	0.599	A	0.609	B
8.	Sunset Blvd. and Stone Canyon Rd.	0.505	A	0.604	B
9.	Sunset Blvd. and Hilgard Ave. / Copa de Oro Rd.	0.833	D	0.851	D
10.	Sunset Blvd. and Beverly Glen Blvd. / Bel Air Rd.	1.001	F	1.066	F
11.	Sunset Blvd. (east I/S) and Beverly Glen Blvd.	1.039	F	1.087	F
12.	San Diego Fwy N/B off-ramp and Sepulveda Blvd.	0.506	A	0.564	A
13.	Montana Ave. and Sepulveda Blvd.	0.931	E	0.890	D
14.	Montana Ave. and Levering Ave.	1.012	F	0.837	D
15.	Montana Ave. / Gayley Ave. and Veteran Ave.	0.866	D	0.999	E
16.	Strathmore Pl. and Gayley Ave.	0.697	B	0.625	B
17.	Levering Ave. and Veteran Ave	0.491	A	0.637	B
18.	Wyton Dr. and Hilgard Ave.	0.427	A	0.300	A
19.	Wyton Dr. / Comstock Ave. and Beverly Glen Blvd.	0.782	C	0.787	C

Table 11 (cont.)
Critical Movement Analysis Summary
Existing (2001) Traffic Conditions During Regular Session

Intersection		AM Peak Hour CMA	AM Peak Hour LOS	PM Peak Hour CMA	PM Peak Hour LOS
20.	Westholme Ave. and Hilgard Ave.	0.450	A	0.469	A
21.	Manning Ave. and Hilgard Ave.	0.273	A	0.320	A
22.	Le Conte Ave. and Gayley Ave.	0.646	B	0.548	A
23.	Le Conte Ave. and Westwood Blvd.	0.602	B	0.572	A
24.	Le Conte Ave. and Tiverton Dr.	0.315	A	0.297	A
25.	Le Conte Ave. and Hilgard Ave.	0.543	A	0.621	B
26.	Weyburn Ave. and Gayley Ave.	0.421	A	0.691	B
27.	Weyburn Ave. and Westwood Blvd.	0.428	A	0.459	A
28.	Weyburn Ave. and Tiverton Dr.	0.327	A	0.378	A
29.	Weyburn Ave. and Hilgard Ave.	0.356	A	0.525	A
30.	Kinross Ave. and Westwood Blvd.	0.407	A	0.705	C
31.	Lindbrook Dr. and Westwood Blvd.	0.369	A	0.431	A
32.	Lindbrook Dr. and Tiverton Ave.	0.599	A	0.525	A
33.	Constitution Ave. and Sepulveda Blvd.	0.415	A	0.590	A
34.	Wilshire Blvd. and San Vicente Blvd.	1.006	F	1.142	F
35.	Wilshire Blvd. and Sepulveda Blvd.	1.056	F	1.065	F
36.	Wilshire Blvd. and Veteran Ave.	0.934	E	1.361	F
37.	Wilshire Blvd. And Gayley Ave.	0.689	B	0.785	C
38.	Wilshire Blvd. and Westwood Blvd.	0.715	C	0.709	C
39.	Wilshire Blvd. and Glendon Ave.	0.770	C	0.867	D
40.	Wilshire Blvd. and Malcolm Ave.	0.622	B	0.768	C
41.	Wilshire Blvd. and Westholme Ave.	0.814	D	0.805	D
42.	Wilshire Blvd. and Warner Ave.	0.757	C	0.635	B

Table 11 (cont.)
Critical Movement Analysis Summary
Existing (2001) Traffic Conditions During Regular Session

Intersection		AM Peak Hour CMA	AM Peak Hour LOS	PM Peak Hour CMA	PM Peak Hour LOS
43.	Wilshire Blvd. and Beverly Glen Blvd.	0.846	D	0.849	D
44.	Ohio Ave. and Sawtelle Blvd.	0.943	E	0.871	D
45.	Ohio Ave. and Sepulveda Blvd.	1.008	F	0.949	E
46.	Ohio Ave. and Veteran Ave.	0.819	D	0.989	E
47.	Ohio Ave. and Westwood Blvd.	0.730	C	0.779	C
48.	Santa Monica Blvd. and Sawtelle Blvd.	0.874	D	0.836	D
49.	Santa Monica Blvd. and San Diego Fwy (S/B)	0.816	D	0.675	B
50.	Santa Monica Blvd. and San Diego Fwy (N/B)	1.039	F	0.837	D
51.	Santa Monica Blvd. and Sepulveda Blvd.	0.970	E	1.016	F
52.	Santa Monica Blvd. (N) and Veteran Ave.	0.875	D	0.914	E
53.	Santa Monica Blvd. (N) and	0.812	D	0.852	D
54.	Roscomare Rd. and Mulholland Dr.	1.195	F	0.715	C
55.	Roscomare Rd. and Stradella Rd./Linda Flora Dr.	0.498	A	0.444	A
56.	Chalon Rd. and Bellagio Rd.	0.523	A	0.501	A
57.	Beverly Glen Blvd. and Mulholland Dr.	1.026	F	1.048	F
58.	Beverly Glen Blvd. and Greendale Dr.	0.812	D	0.811	D

Table 12
Critical Movement Analysis Summary
Existing (2001) Traffic Conditions During Summer

Intersection		AM Peak Hour CMA	AM Peak Hour LOS	PM Peak Hour CMA	PM Peak Hour LOS
1.	Church Ln. / Ovada Pl. and Sepulveda Blvd.	0.779	C	0.971	E
2.	San Diego Fwy S/B On/Off Ramps and Church Ln.	0.973	E	1.193	F
3.	Sunset Blvd. and Church Ln.	0.767	C	0.927	E
4.	Sunset Blvd. and San Diego Fwy N/B On/Off Ramps	0.760	C	0.413	A
5.	Sunset Blvd. and Veteran Ave.	0.812	D	0.867	D
6.	Sunset Blvd. and Bellagio Way	0.939	E	1.042	F
7.	Sunset Blvd. and Westwood Blvd.	0.486	A	0.565	A
8.	Sunset Blvd. and Stone Canyon Rd.	0.395	A	0.582	A
9.	Sunset Blvd. and Hilgard Ave. / Copa de Oro Rd.	0.798	C	0.808	D
10.	Sunset Blvd. and Beverly Glen Blvd. / Bel Air Rd.	0.926	E	1.063	F
11.	Sunset Blvd. (east I/S) and Beverly Glen Blvd.	0.885	D	1.079	F
12.	San Diego Fwy N/B off-ramp and Sepulveda Blvd.	0.434	A	0.509	A
13.	Montana Ave. and Sepulveda Blvd.	0.668	B	0.850	D
14.	Montana Ave. and Levering Ave.	0.859	D	0.748	C
15.	Montana Ave. / Gayley Ave. and Veteran Ave.	0.778	C	0.969	E
16.	Strathmore Pl. and Gayley Ave.	0.623	B	0.466	A
17.	Levering Ave. and Veteran Ave	0.489	A	0.633	B
18.	Wyton Dr. and Hilgard Ave.	0.330	A	0.300	A
19.	Wyton Dr. / Comstock Ave. and Beverly Glen Blvd.	0.609	B	0.751	C

Table 12 (cont.)
Critical Movement Analysis Summary
Existing (2001) Traffic Conditions During Summer

Intersection		AM Peak Hour CMA	AM Peak Hour LOS	PM Peak Hour CMA	PM Peak Hour LOS
20.	Westholme Ave. and Hilgard Ave.	0.390	A	0.404	A
21.	Manning Ave. and Hilgard Ave.	0.182	A	0.223	A
22.	Le Conte Ave. and Gayley Ave.	0.567	A	0.519	A
23.	Le Conte Ave. and Westwood Blvd.	0.559	A	0.553	A
24.	Le Conte Ave. and Tiverton Dr.	0.311	A	0.299	A
25.	Le Conte Ave. and Hilgard Ave.	0.404	A	0.439	A
26.	Weyburn Ave. and Gayley Ave.	0.406	A	0.779	C
27.	Weyburn Ave. and Westwood Blvd.	0.412	A	0.442	A
28.	Weyburn Ave. and Tiverton Dr.	0.282	A	0.389	A
29.	Weyburn Ave. and Hilgard Ave.	0.328	A	0.493	A
30.	Kinross Ave. and Westwood Blvd.	0.429	A	0.560	A
31.	Lindbrook Dr. and Westwood Blvd.	0.364	A	0.367	A
32.	Lindbrook Dr. and Tiverton Ave.	0.294	A	0.311	A
33.	Constitution Ave. and Sepulveda Blvd.	0.376	A	0.531	A
34.	Wilshire Blvd. and San Vicente Blvd.	0.885	D	0.918	E
35.	Wilshire Blvd. and Sepulveda Blvd.	0.973	E	1.000	E
36.	Wilshire Blvd. and Veteran Ave.	0.847	D	1.292	F
37.	Wilshire Blvd. And Gayley Ave.	0.647	B	0.742	C
38.	Wilshire Blvd. and Westwood Blvd.	0.699	B	0.698	B
39.	Wilshire Blvd. and Glendon Ave.	0.621	B	0.721	C
40.	Wilshire Blvd. and Malcolm Ave.	0.634	B	0.824	D
41.	Wilshire Blvd. and Westholme Ave.	0.630	B	0.778	C
42.	Wilshire Blvd. and Warner Ave.	0.757	C	0.635	B

Table 12 (cont.)
Critical Movement Analysis Summary
Existing (2001) Traffic Conditions During Summer

Intersection		AM Peak Hour CMA	AM Peak Hour LOS	PM Peak Hour CMA	PM Peak Hour LOS
43.	Wilshire Blvd. and Beverly Glen Blvd.	0.703	C	0.818	D
44.	Ohio Ave. and Sawtelle Blvd.	0.861	D	0.875	D
45.	Ohio Ave. and Sepulveda Blvd.	0.815	D	0.965	E
46.	Ohio Ave. and Veteran Ave.	0.687	B	0.890	D
47.	Ohio Ave. and Westwood Blvd.	0.561	A	0.641	B
48.	Santa Monica Blvd. and Sawtelle Blvd.	0.838	D	0.886	D
49.	Santa Monica Blvd. and San Diego Fwy (S/B)	0.870	D	0.667	B
50.	Santa Monica Blvd. and San Diego Fwy (N/B)	0.783	C	0.737	C
51.	Santa Monica Blvd. and Sepulveda Blvd.	0.901	E	0.871	D
52.	Santa Monica Blvd. (N) and Veteran Ave.	0.729	C	0.873	D
53.	Santa Monica Blvd. (N) and Westwood Blvd.	0.771	C	0.841	D
54.	Roscomare Rd. and Mulholland Dr.	1.195	F	0.715	C
55.	Roscomare Rd. and Stradella Rd./Linda Flora Dr.	0.498	A	0.444	A
56.	Chalon Rd. and Bellagio Rd.	0.523	A	0.501	A
57.	Beverly Glen Blvd. and Mulholland Dr.	1.026	F	1.048	F
58.	Beverly Glen Blvd. and Greendale Dr.	0.812	D	0.811	D

Note: Regular Session counts were used for study intersection nos. 42 and 54 through 58.

Analysis of Existing Freeway Conditions

An examination was also made of freeway conditions on the two regional facilities within the project study area. Seven freeway segments were selected for this analysis. These segments are:

1. San Diego Freeway (I-405) south of Santa Monica Freeway
2. San Diego Freeway (I-405) between Santa Monica Freeway and Santa Monica Blvd.
3. San Diego Freeway (I-405) between Wilshire Blvd. and Santa Monica Blvd.
4. San Diego Freeway (I-405) between Sunset Blvd. and Wilshire Blvd.
5. San Diego Freeway (I-405) north of Sunset Blvd.
6. Santa Monica Freeway (I-10) between Bundy Dr. and San Diego Freeway
7. Santa Monica Freeway (I-10) between Overland Ave. and National Blvd.

Current traffic volumes on these freeway segments were obtained from several sources. Daily, AM and PM peak hour traffic volumes on the segments analyzed were obtained from the most current Caltrans data.[3] In addition, AM and PM peak hour directional splits were taken from the Los Angeles County 1999 Congestion Management Program ("CMP"). All of the year 2000 freeway traffic volumes were growth-factored by one percent to reflect year 2001 traffic conditions, per 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. As detailed in procedures discussed in the HCM Chapter 3, each mainline travel lane was assumed to have a capacity of 2,000 vehicles per hour (VPH). The total directional capacities were then computed, and used in conjunction with the previously determined peak hour directional freeway segment volumes to calculate the existing 2001 freeway levels of services in the project vicinity. These values are shown in Table 13.

[3] 2000 Traffic volumes on California State Highways, Caltrans Website.

As shown in Table 13, many study segments on the San Diego Freeway (I-405) and the Santa Monica Freeway (I-10) currently operate at or above design capacity during at least one of the peak hours, resulting in severe congestion and travel speeds of less than 25 miles per hour. The remaining freeway study segments are operating at acceptable levels of service during one or both of the peak hours.

Table 13
Existing (2001) Freeway Volumes and Levels of Service

No.	Location	Peak Hour	Dir.	No. Lanes	Freeway Capacity	Daily Volume	Peak Hr Volume	D/C	LOS
1.	San Diego Fwy.	AM	N/B	5	10,000	307,000	12,430	1.243	F(0)
	(I-405) South of	PM		5	10,000		11,190	1.119	F(0)
	Santa Monica Fwy.	AM	S/B	5	10,000		7,450	0.745	C
		PM		5	10,000		10,420	1.042	F(0)
2.	San Diego Fwy.	AM	N/B	5	10,000	313,100	8,250	0.825	D
	(I-405) Btwn. Santa	PM		5	10,000		11,350	1.135	F(0)
	Monica Fwy. &	AM	S/B	5	10,000		11,910	1.191	F(0)
	Santa Monica Blvd.	PM		5	10,000		10,570	1.057	F(0)
3.	San Diego Fwy.	AM	N/B	6	12,000	291,900	7,720	0.643	C
	(I-405) Btwn.	PM		6	12,000		11,280	0.940	E
	Wilshire Blvd. &	AM	S/B	6	12,000		11,140	0.928	D
	Santa Monica Blvd.	PM		6	12,000		9,230	0.769	C
4.	San Diego Fwy.	AM	N/B	5	10,000	264,600	6,906	0.696	C
	(I-405) Btwn.	PM		5	10,000		11,940	1.194	F(0)
	Sunset Blvd. &	AM	S/B	5	10,000		10,040	1.004	F(0)
	Wilshire Blvd.	PM		5	10,000		6,540	0.654	C
5.	San Diego Fwy.	AM	N/B	5	10,000	262,600	6,850	0.685	C
	(I-405) North of	PM		5	10,000		11,740	1.174	F(0)
	Sunset Blvd.	AM	S/B	4	8,000		9,880	1.235	F(0)
		PM		4	8,000		6,440	0.805	D
6.	Santa Monica Fwy.	AM	W/B	5	10,000	255,500	7,580	0.758	C
	(I-10) Btwn.	PM		5	10,000		9,840	0.984	E
	Bundy Dr. &	AM	E/B	5	10,000		10,070	1.007	F(0)
	San Diego Fwy.	PM		5	10,000		9,350	0.935	E
7.	Santa Monica Fwy.	AM	W/B	4	10,000	267,700	7,410	0.741	C
	(I-10) Btwn.	PM		4	10,000		7,540	0.754	C
	Overland Ave. &	AM	E/B	5	8,000		8,380	1.048	F(0)
	National Blvd.	PM		5	8,000		9,630	1.204	F(0)

Note: LOS designations based on criteria detailed in Appendix D, Exhibit D6, page D-40, 1997, Los Angeles County CMP.

STUDY METHODOLOGY

COMPUTER MODEL OVERVIEW

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[4]) assuming current trends in regional growth. For this study, various changes were incorporated into the model to account for future highway improvements, projections of local and on-campus growth (from previously-approved projects), and implementation of mitigation measures (including those transportation demand control measures adopted for the 1990 LRDP and capacity enhancements for recently-approved UCLA projects). In addition, key assumptions about campus transportation programs (such as continued implementation of TDM programs) were factored into future projections of campus parking demand and trip generation. The following sections describe the regional computer model, the ways in which the regional model was modified for this study, and other relevant assumptions used in this analysis.

Model Refinements

The transportation model used for this study is based on a regional model developed by SCAG which incorporates a regional land use database developed in consultation with local jurisdictions and a highway network developed with input from transportation agencies throughout the region. The parameters of the model (trip generation rates, roadway capacity, etc.) have been calibrated to closely replicate the transportation patterns unique to the Southern California region. The model and modeling procedures

[4] 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.

used in this study are described more fully in Appendix C of this report.

Because the SCAG model covers a five-county region (including Los Angeles, Ventura, Orange, San Bernardino and Riverside Counties), it must be adapted to more accurately reflect local conditions within the study area. For this study, the roadway network contained within the SCAG model was refined to reflect the highway network in 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 which may affect vehicle travel speeds and routes.

Future Highway Improvements

After the model has been refined to reflect current conditions within the study area, the model was further refined to account for future highway improvements, so that future traffic conditions reflect those improvements. This includes only those improvements now under construction or for which implementation is reasonably assured (e.g., already funded, or included in an adopted transportation program). These improvements include provision of High-Occupancy Vehicle (HOV) or "carpool" lanes on the San Diego Freeway, as well as those programmed for the Golden State, Hollywood and Antelope Valley Freeways. Surface street improvements include the addition of a reversible lane on Sepulveda Boulevard north of Wilshire Boulevard, and the Santa Monica Transitway improvements. Other potential improvements which may not be implemented by year 2011 were not included, such as trip-reduction measures required by the South Coast Air Quality Management District (SCAQMD) and the Los Angeles County Congestion Management Program (CMP).

Cumulative Traffic Growth/Related Projects

To develop projections of future traffic conditions in the study area, the SCAG transportation model uses current land use data and socioeconomic projections to estimate future traffic volumes on regional highways and major streets. The socioeconomic data is developed for the SCAG Regional Plan and Comprehensive Guide (RCPG) and is updated on a periodic basis in consultation with relevant jurisdictions charged with regulating development in the five county area.

Because the SCAG model covers a five-county region, it must be adapted to more accurately reflect local conditions within the study area. Both current land use data and future socio-economic projections were disaggregated to smaller zones in the study area to better replicate traffic access patterns and provide a finer level of detail.

In addition to regional projections of future growth, the traffic study also accounted for the impact of previously-approved or other "reasonably foreseeable" projects on the UCLA campus and the study area. Using information gathered from the City of Los Angeles and UCLA, a variety of "related projects" were identified, including those projects which are completed but not fully occupied, are currently under construction or beginning construction, or are presently only proposed but which could become operational by 2011. A list of the non-UCLA related projects for this study is provided in Table 14(a). Figure 7 depicts the location of all non-UCLA related projects. This list represents all projects within a 2-1/2 mile radius of the campus center. This includes all related projects anticipated to have a potential significant impact at study intersections.

A list of UCLA projects that are approved, under construction or analyzed in a Certified EIR and are reasonably foreseeable is provided in Table 14(b).

Table 14(a)
Non-UCLA Related Projects

No.	Description	Location	MDU	Retail Employees	Non-Retail 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
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)

Table 14(a) cont.
Non-UCLA Related Projects

No.	Description	Location	MDU	Retail Employees	Non-Retail Employees	Total Employees
14.	Harvard-Westlake Middle School-	700 N. Faring Rd.				
	24 students (net), 15 employees (net)		0	0	15	15
15.	95,000 sf Office	Wilshire Bl and	0	0	380	380
	9,633 sf Retail (Previous Use)	Santa Monica Bl.	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	421-427 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

FIGURE 7

FN: UCLALRDP-01-REVISED\RELPROJS

OFF-CAMPUS RELATED PROJECTS LOCATION MAP

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning ·Traffic Engineering

Table 14(b)

UCLA Projects*

Project	Net New GSF	Population Change
Men's Gym Staging Bldg (Wooden West)	33,025	0
Intramural Field Parking (Storage Space)	3,000	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
Gloria Kaufman Hall (Garden Dance Theater)	3,600	0
Nanosystems Engineering Facilities Plan	166,000	174
Southwest Campus Housing	882,000	37
Childcare	10,000	TBD
Total Net New GSF	1,402,850	262

Seismic Renovation	Renovation or Replacement GSF
Academic Health Center Replacement (Hospital, SRB1 & 2)	1,710,000
Broad Art Center	146,000
Kinsey Hall	142,000
Men's Gym	103,300
Gloria Kaufman Hall (Dance)	81,000

Note: GSF = gross square feet; TBD = to be determined

*Includes projects that were not completed at the time of LRDP traffic counts, and that are reasonably foreseeable (i.e., approved, under construction or analyzed in a certified EIR).

Source: UCLA, May 2002

The net effect of the UCLA projects would include an increase of approximately 262 faculty and staff (associated with the Luck Research Center, the Southwest Campus project, the Physics and Astronomy Building, and the Nanosystems Engineering Facilities Plan), and provide on-campus housing for approximately 2,000 graduate resident students. In addition, a total of approximately 3,552 parking spaces would be provided by the Replacement Hospital, Southwest Campus Housing and Intramural Field Parking Structure projects, with stack parking and other parking spaces being removed, such that UCLA will remain at or under the 1990 LRDP parking cap of 25,169.

To estimate future traffic conditions, for each zone in the study area, the traffic volume that would result from the SCAG socioeconomic data was compared to the volumes that would result from the related projects (identified for that zone). 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.

Campus Population Estimates

The population projections provided in the 2002 LRDP include two types of campus population counts: headcount and average weekday population. 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 since the variation between headcount and average weekday attendance is reflected in the campus parking permit over-issue factor, where the number of parking permits exceeds the physical number of spaces.

The distribution and assignment of trips was performed by the transportation computer model. The computer model utilized the following assignment of travel. It should be noted that in order to better account for local trips, a relatively close model cordon (Sunset

Boulevard, Beverly Glen Boulevard, Santa Monica Boulevard and the San Diego Freeway) was used as shown in Table 15 below. Thus, all trips are counted in the direction they leave campus. For instance, trips which travel southbound on the San Diego Freeway are counted as south directed trips even though some of these trips may then travel to the east on the Santa Monica Freeway.

Table 15 lists the direction for the portions of trips near the campus.

Table 15
Direction of Campus Trips

North	21%
South	38%
East	12%
West	18%
Local	11%

Campus Programs and Practices

Consistent with mitigation measures adopted for the 1990 LRDP, the campus has developed a range of programs and practices designed to reduce parking demand, minimize trip generation, encourage alternative transportation and increase on-campus housing. For the purposes of this study, it is assumed that those programs and practices limiting parking and trips while increasing housing will remain in effect. Although the specific elements of the Transportation Demand Management program may change over the planning horizon of the 2002 LRDP, the overall commitments established in the 1990 LRDP, and the average vehicle ridership goal established by the South Coast Air Quality Management District will remain in effect.

Under the 1990 LRDP, the Campus adopted goals to expand on-campus housing and established limits for on-campus parking (at 25,169 spaces) and the number of vehicle trips that could be generated by the Campus (at 139,500 average daily trips). These limits form the backbone of UCLA's commitment to limiting the campus traffic impact on the local street and regional highway network.

Several other measures demonstrate this commitment as well. In 1985, the Commuter Assistance-Rideshare ("CAR") office was formed to administer UCLA's outreach to students and faculty/staff commuters. This office administers UCLA's vanpool program, which operates over 130 vanpools, in addition to a carpool program and other rideshare or trip-reduction support. In 1987, UCLA adopted a Transportation Systems Demand Management ("TSDM") Plan to further increase ridesharing among UCLA commuters. Continued expansion of this plan was included as a mitigation measure in the 1990 LRDP along with a goal of reducing faculty and staff parking demand 12 percent below pre-(1990) LRDP levels.

In addition to the daily trip cap of 139,500 average daily vehicle trips, the TMMA also established an AM peak period (7:00 to 9:30 AM) limit of 24,320 average daily trips and a PM peak period (3:00 to 6:30 PM) cap of 37,122 average daily trips. To monitor compliance with the trip caps included in the TMMA, UCLA conducts an annual "cordon count," which is a count of all vehicles entering and exiting campus during the third week in October (since the Fall Quarter has the greatest parking demand).

The trip impacts of individual projects are evaluated in conjunction with the CEQA review of those projects. If a project proposed during the LRDP planning horizon is estimated to cause an exceedance of the caps, per LRDP Mitigation Measure C-1.5, such project will not be occupied until appropriate trip reductions have been achieved, and the net effect of occupying the project will not cause the trip caps to be exceeded.

In order to facilitate this reduction in trips, UCLA is continuing and expanding its ridesharing program. The campus has achieved an Average Vehicle Ridership ("AVR") of 1.5, a goal established by the Southern California Air Quality Management District ("SCAQMD") to reduce air pollution and traffic congestion. As part of the 2002 LRDP, the campus would continue to maintain the 1.5 AVR. The ridesharing measures necessary to maintain this

AVR goal will assist the campus to maintain the trip caps established in the 1990 LRDP (and TMMA), and achieve trip reductions through alternative mode usage.

In addition, the campus has continued to expand the student housing program, including the construction of on-campus housing, and the development and acquisition of off-campus housing. These housing programs further reduce the generation of campus related vehicle trips.

In summary, the Campus has: 1) adopted trip generation caps and a parking inventory cap; 2) adopted and surpassed a parking-demand reduction target for faculty and staff; and 3) achieved an AVR goal of 1.5 riders per vehicle. The Campus proposes to retain the parking and trip caps, maintain the parking reduction target, and maintain the AVR during the planning horizon for the 2002 LRDP. These policies will continue to minimize the potential traffic and parking impacts of the 2002 LDRP. The specific components of the TDM Program may change over time as the campus strives for the most cost-effective manner by which to maintain achievement of its required goals, so long as the overall effectiveness of the program is not compromised (as embodied in the parking cap, and the trip cap).

PROJECT IMPACTS

SIGNIFICANCE THRESHOLDS

Under CEQA, each local jurisdiction must determine which traffic (and other environmental) impacts it considers "significant". For this study, significant project-related traffic impacts at study intersections are defined by the University of California, which is the lead agency for the project. For the UCLA campus, the University uses the City of Los Angeles significance criteria.

The City of Los Angeles defines a significant traffic impact based on a "stepped scale," with intersections at high volume-to-capacity ratios being more sensitive to additional traffic than those operating with available surplus capacity. 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.

The Los Angeles County Congestion Management Plan ("CMP") identifies an impact of less than two percent for a final ("With Project") Level of Service of E or better as less than significant. The University has adopted this significance criteria for freeway traffic impacts.

Criteria have not been set for public transit. However, to exceed the total capacity of a route would be considered adverse. A project contributing more than two percent to this excess would be considered significant by the Los Angeles County Congestion Management Plan.

FUTURE "WITHOUT PROJECT" CONDITIONS

To estimate the future traffic volumes (for the year 2011) that would result without implementation of the 2002 LRDP (or approval of any new projects), the UCLA projects listed in Table 14(b) were analyzed to determine how those projects would impact the parking inventory and vehicle trip generation for the Campus. Based on the characteristics of the projects (including the Southwest Campus Housing and the Intramural Field Parking Structure projects) the UCLA trip generation rates developed for this study was applied in order to estimate future UCLA trips for 2010/11 without adoption of the 2002 LRDP, as shown in Table 16.

Table 16
UCLA On-Campus Trip Generation Rates
Future "Without Project" Conditions

	Regular Session			Summer Session		
	Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour
Faculty & Staff-Medical Center	1.504	0.190	0.195	1.354	0.171	0.175
Faculty & Staff-Other University	1.861	0.163	0.216	1.675	0.147	0.195
Resident Students						
Undergraduate	0.186	0.003	0.015	0.508	0.007	0.042
Graduate	0.959	0.091	0.101	0.958	0.092	0.100
Not Enrolled/Employed Off-Campus	N/A	N/A	N/A	3.350	0.280	0.400
Day's Conference Attendees	N/A	N/A	N/A	0.814	0.011	0.067
Commuter Students						
Student Academic 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
Quarterly Guest/Emeritus Permits	1.705	0.180	0.089	1.705	0.180	0.089
University Extension Permits	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

The trip rates in Table 16 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 related 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).

Using the trip generation rates above, an estimate of the total number of vehicle trips that would be generated by the Campus in 2010/11 (without implementation of the 2002 LRDP) was developed, as shown in Table 17(a) and (b).

Table 17(a)
Future "Without Project" Trip Generation
(Regular Session)

Permit Group	Number	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
Faculty & Staff-Medical Center	5,617	8,449	1,066	1,094
Faculty & Staff-Other University	13,074	24,336	2,133	2,830
Resident Students				
Undergraduate	7,334	1,366	19	113
Graduate	2,000	1,917	182	201
Not Enrolled/Employed Off-Campus	0	0	0	0
Commuter Students				
Student Academic Employee	3,219	4,339	453	529
Other Commuter Students	21,757	21,190	1,407	1,904
Quarterly Guest/Emeritus Permits	5,671	9,670	1,021	505
University Extension Permits	5,336	9,099	0	0
Daily Permit Sales	6,155	18,768	1,083	948
Other Parking		3,931	85	328
Two-Wheeled/Through/Drop-Off Vehicles		22,042	1,345	1,169
Shuttles		2,948	229	245
Main/Southwest Campus		128,055	9,023	9,866
Wilshire Center	950	1,768	155	206
Cordon Total		129,823	9,178	10,072

As shown in Table 17(a), in the future, without implementation of the 2002 LRDP, during the regular session, the UCLA Campus would generate approximately 129,823 average daily trips, 9,178 trips during the morning peak hour, and 10,072 trips during the afternoon peak. This would represent an increase of approximately 8,024 average daily trips, 518 trips during the AM peak hour, and 675 trips during the PM peak hour, compared to current conditions (for 2000/01).

During the summer, the UCLA Campus would generate approximately 113,543 daily trips, 7,959 AM peak hour trips and 8,569 PM peak hour trips, as shown in Table 17(b).

Table 17(b)
Future "Without Project" Trip Generation
(Summer Session)

Permit Group	Number	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
Faculty & Staff-Medical Center	5,617	7,604	959	985
Faculty & Staff-Other University	13,074	21,903	1,920	2,547
Resident Students				
Undergraduate	715	363	5	30
Graduate	599	574	55	60
Not Enrolled/Employed Off-Campus	1,401	4,694	392	560
Day's Conference Attendees	1,395	1,135	16	94
Commuter Students				
Student Academic Employee	2,049	2,486	259	303
Other Commuter Students	7,710	6,558	435	589
Quarterly Guest/Emeritus Permits	5,671	9,670	1,021	505
University Extension Permits	5,336	9,099	0	0
Daily Permit Sales	6,155	18,768	1,083	948
Other Parking		3,931	85	328
Two-Wheeled/Through/Drop-Off Vehicles		22,042	1,345	1,169
Shuttles		2,948	229	245
Main/Southwest Campus		111,775	7,804	8,363
Wilshire Center	950	1,768	155	206
Cordon Total		113,543	7,959	8,569

To estimate future traffic volumes for the year 2011 (without implementation of the 2002 LRDP), a future traffic scenario was then developed that added forecast traffic growth (from the greater of SCAG socioeconomic data and related projects) to existing traffic volumes. The resulting traffic volumes (for the year 2011) reflect the expected future "Without Project" conditions, which are shown in Figures 8 and 9. These volumes represent ambient traffic growth and cumulative development in the study area and provide a future "baseline" against which the effects of project-related traffic (from the 2002 LRDP) can be determined.

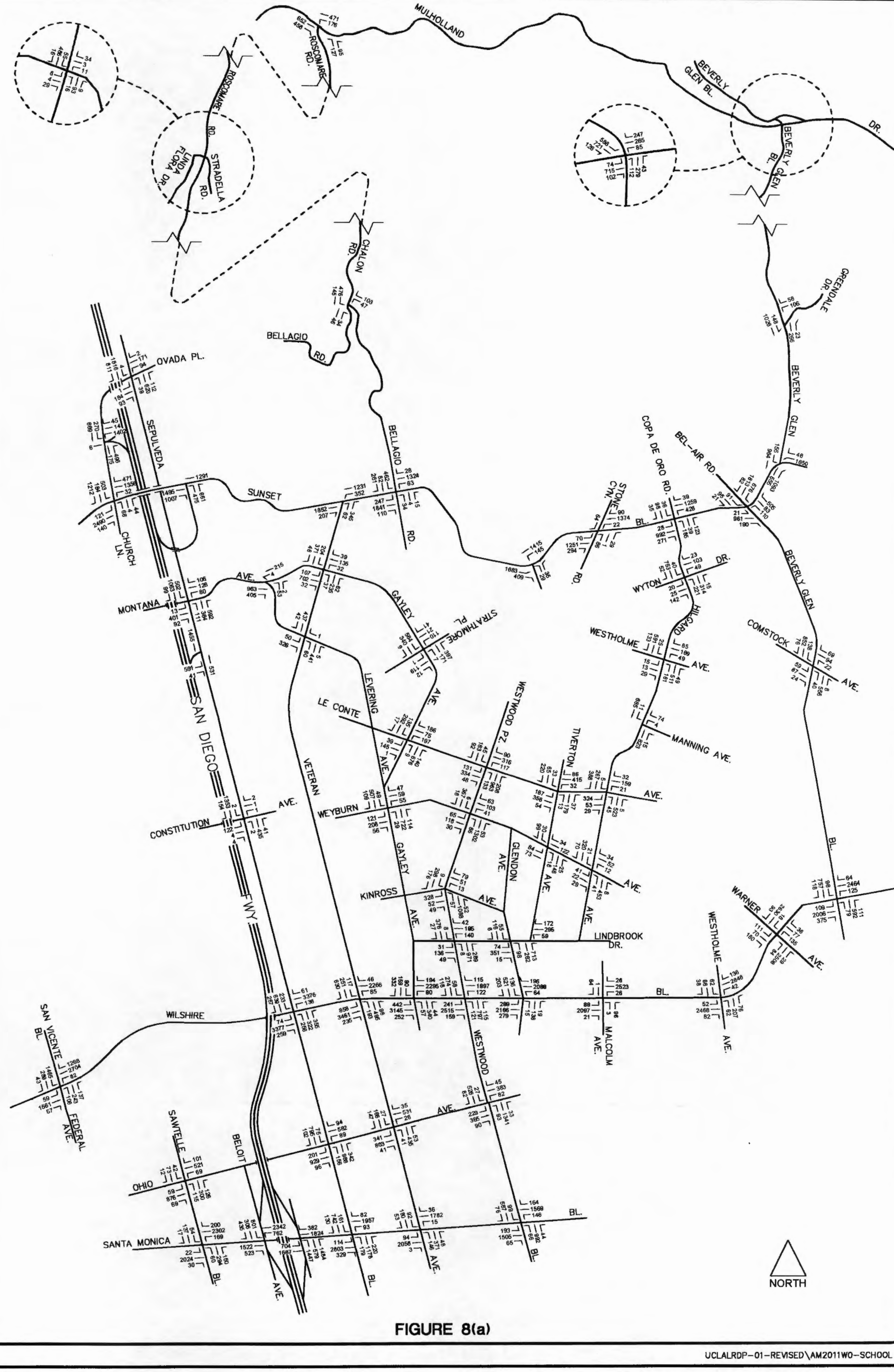

FIGURE 8(a)

UCLALRDP-01-REVISED\AM2011WO-SCHOOL

FUTURE (2011) TRAFFIC VOLUMES
WITHOUT PROJECT (REGULAR SESSION)
AM PEAK HOUR

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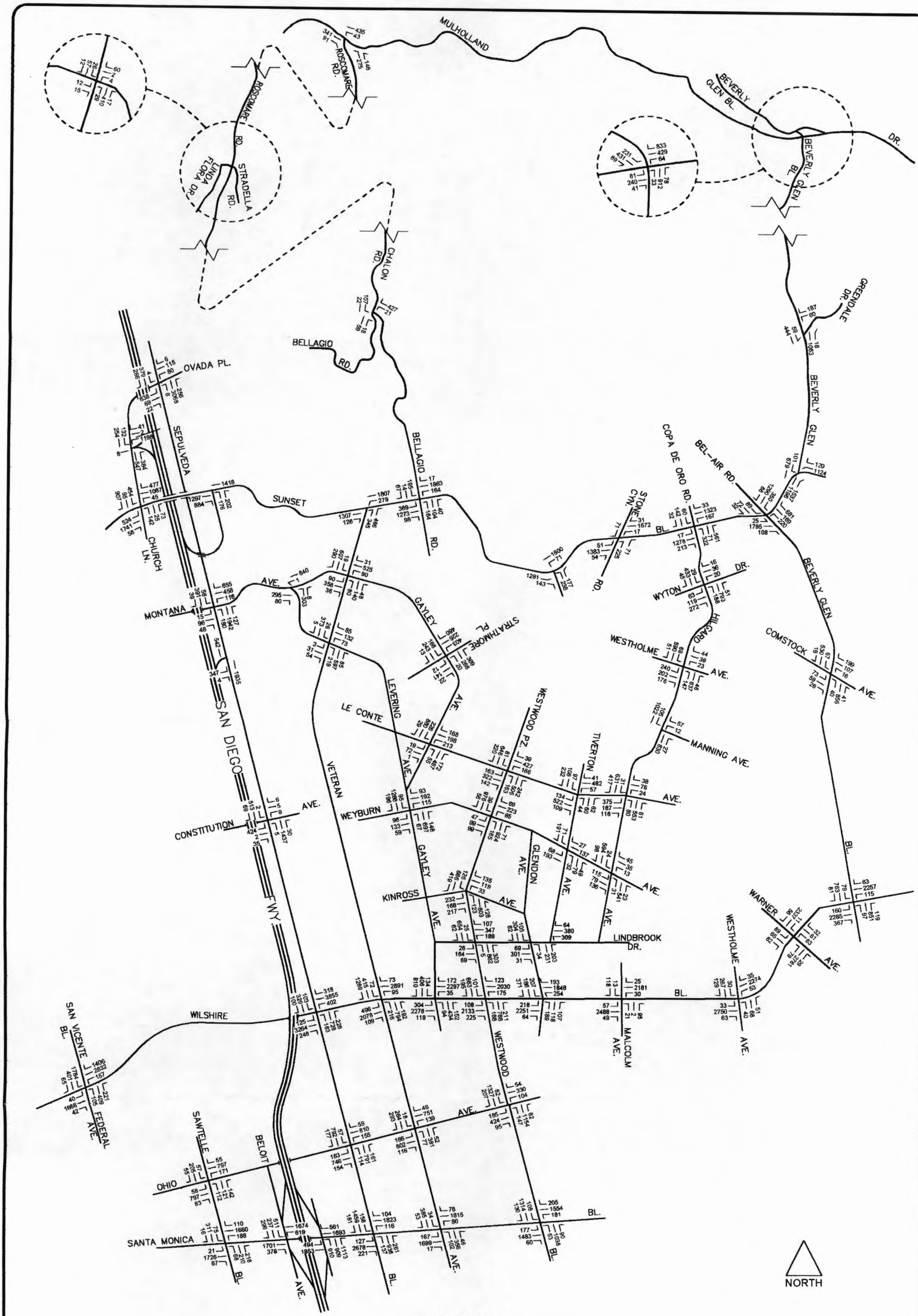

FIGURE 8(b)

UCLALRDP-01-REVISED\PM2011WO-SCHOOL

FUTURE (2011) TRAFFIC VOLUMES WITHOUT PROJECT (REGULAR SESSION) PM PEAK HOUR

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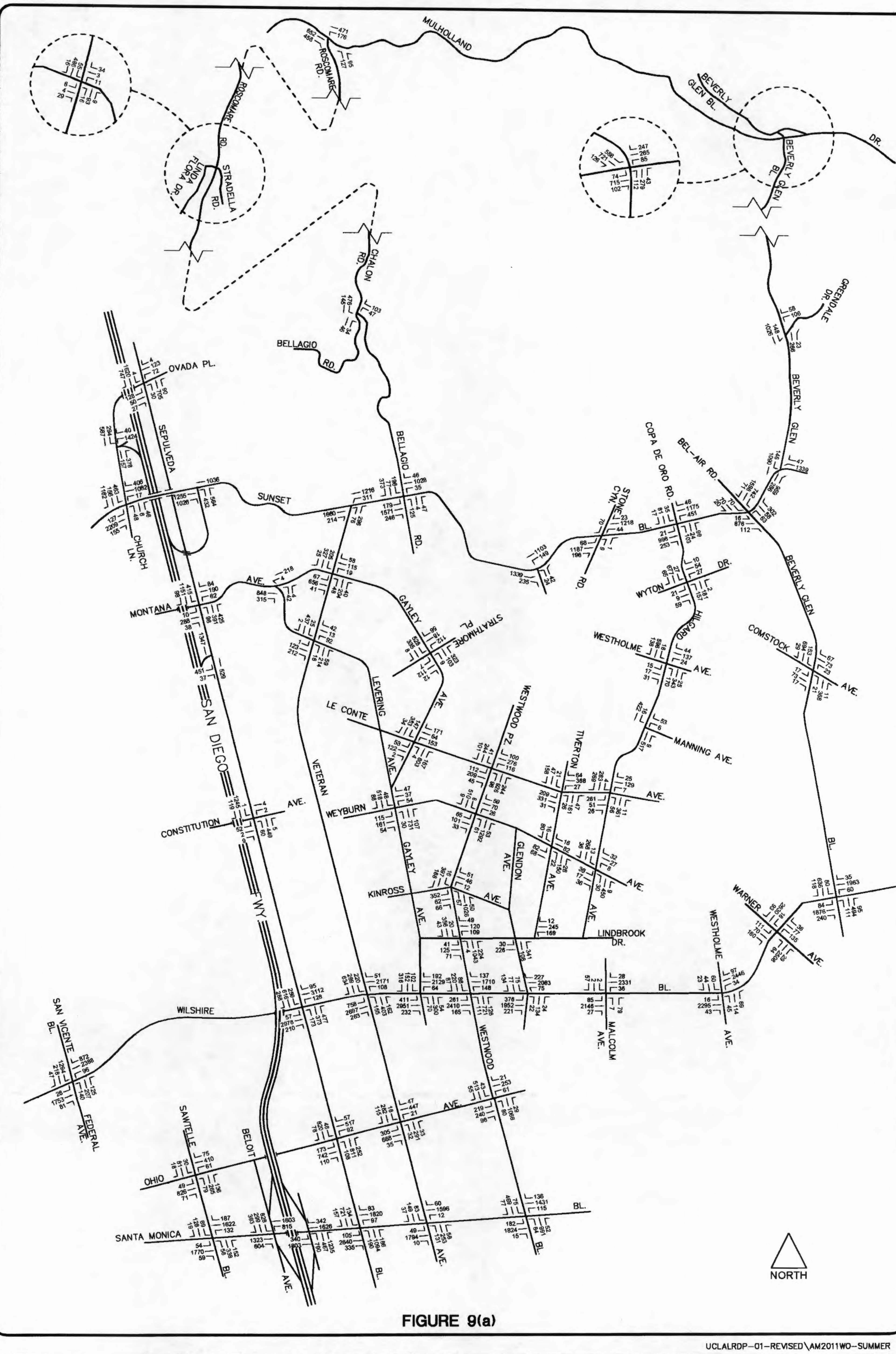

FIGURE 9(a)

UCLALRDP-01-REVISED\AM2011WO-SUMMER

FUTURE (2011) TRAFFIC VOLUMES
WITHOUT PROJECT (SUMMER SESSION)
AM PEAK HOUR

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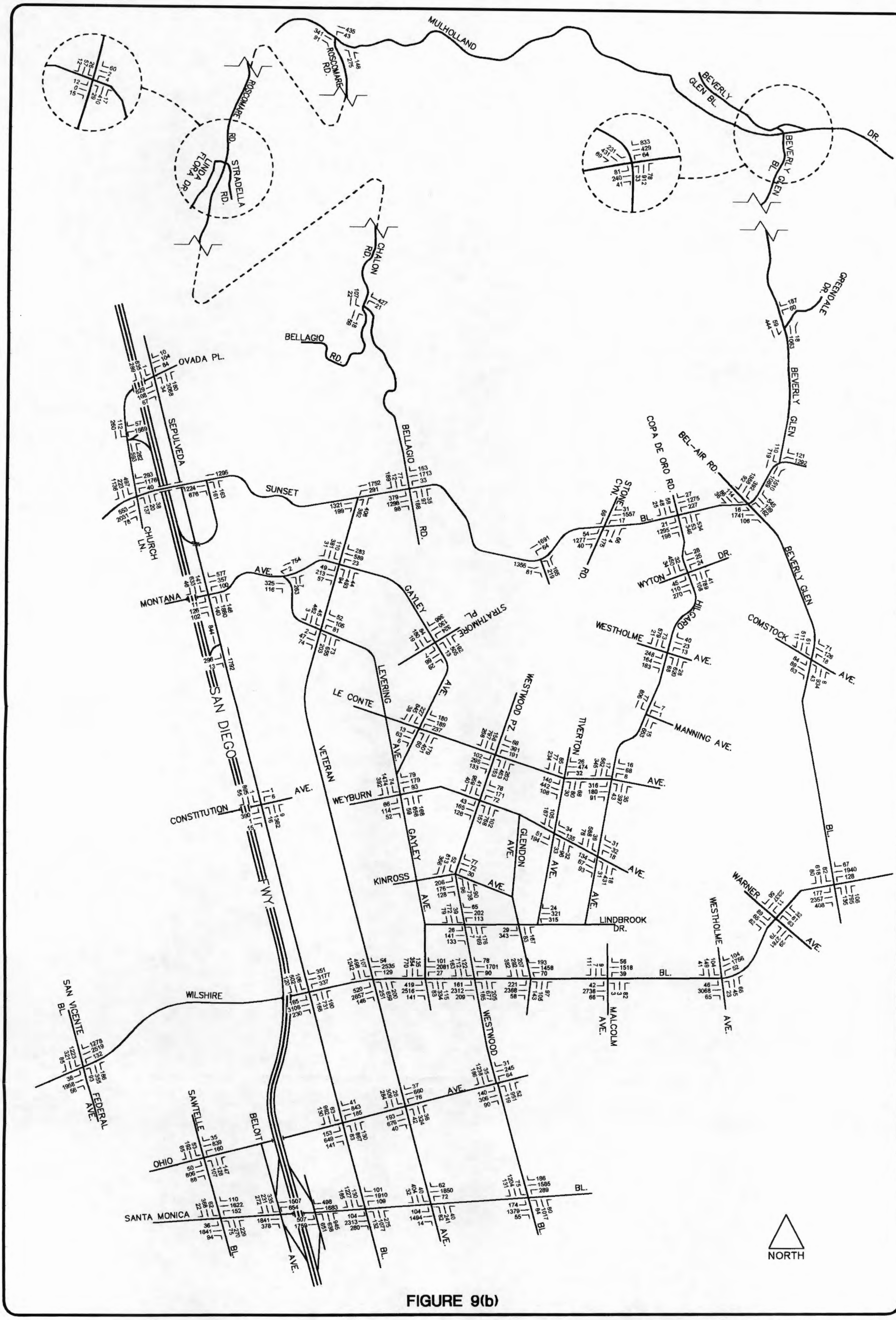

FIGURE 9(b)

UCLALRDP-01-REVISED\PM2011WO-SUMMER

FUTURE (2011) TRAFFIC VOLUMES WITHOUT PROJECT (SUMMER SESSION) PM PEAK HOUR

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FUTURE "WITH 2002 LRDP" CONDITIONS

Changes in Campus Population

Implementation of the 2002 LRDP would result in increases in the campus population, during both the regular session and summer session. The concurrently proposed development of the Northwest Campus Housing Infill project would increase the number of on-campus resident students. The net effects of those changes were described in the Project Description.

Future Campus Parking Demand

Because implementation of the 2002 LRDP would result in an increase in student enrollment and the total campus population (including faculty, staff, and campus visitors), demand for parking would also increase. An analysis of potential demand was conducted to determine whether projected future demand could be accommodated within the parking cap established by the 1990 LRDP. This analysis included an assessment of the permit demand associated with projected increases in faculty/staff and other individuals (e.g., emeritus faculty, visitors and medical patients) using current (Year 2001) parking permit demand ratios (from Table 4(c)). Then it was assumed that the campus could increase the on-campus parking inventory (during the planning horizon of the 2002 LRDP) to 25,169 spaces (the maximum permitted under the parking space cap established in the 1990 LRDP) as shown in Table 18. Given parking demand for faculty, staff, on-campus residents, and other permits (e.g., guest, emeritus faculty and visitors), the future number of on-campus parking spaces that would be available for commuter students was estimated. The results of this analysis is shown in Table 18, which indicates that approximately 3,849 on-campus parking spaces would be available to meet commuter student demand, which would correspond to approximately 6,521 student parking permits. It was determined that future parking demand associated with implementation of the 2002 LRDP can be accommodated within the 1990 LRDP parking cap of 25,169 on-campus spaces.

Table 18
Future On-Campus Parking Allocation
With 2002 LRDP

Permit Group	Number	Parking Permits	Spaces
Faculty & Staff-Medical Center	6,159	5,104	3,543
Faculty & Staff-Other University	14,339	11,247	7,868
Resident Students			
Undergraduate	9,009	1,031	667
Graduate	2,000	1,917	1,917
Not Enrolled/Employed Off-Campus	0	0	0
Commuter Students			
Student Academic Employee	3,573	2,300	1,605
Other Commuter Students	21,863	6,521	3,849
Other Permits			
Quarterly Guest/Emeritus Permits	6,207	6,207	2,711
University Extension Permits	5,336	5,336	0
Daily Permit Sales	7,109	7,109	2,461
Other Parking			548
Total Spaces			25,169

Using the space and permit allocations and the population for each user group, future parking ratios can be developed, as shown in Table 19.

Table 19
Future Parking Ratios
With Proposed 2002 LRDP

Permit Group	Permits Per Person	Spaces Per Person
Faculty & Staff-Medical Center	0.829	0.575
Faculty & Staff-Other University	0.784	0.549
Resident Students		
Undergraduate	0.114	0.074
Graduate	0.959	0.959
Not Enrolled/Employed Off-Campus	0.959	0.959
Commuter Students		
Student Academic Employee	0.644	0.449
Other Commuter Students	0.298	0.176
Other Permits		
Quarterly Guest/Emeritus Permits	1.000	0.437
University Extension Permits	1.000	0.000
Daily Permit Sales	1.000	0.346

Table 19 indicates that future parking permit ratios would remain the same as current conditions, except for commuter students, which would increase slightly from the current 0.283 permits per student to a future ratio of 0.298 permits per student. Because the student parking ratio would increase slightly and most new regular session students would be residents, the student waiting list for parking would remain about constant. Thus, the student waiting list for parking would be expected to continue to exist since the slight increase in total permits is much smaller than the Fall quarter waiting list of over 3,000 students.

Future Campus Trip Generation

Future trip generation for the campus was estimated by adjusting the future "without project" trip rates (shown in Table 16) to account for the effects of the 2002 LRDP, including an increase in campus population [shown in Tables 1(a) and 1(b) in the project description] and an increase in on-campus resident students (associated with the concurrently-proposed Northwest Housing Infill project). The net effect of the LRDP would be an increase in the faculty/staff headcount of 1,895, student headcount of 2,135 (of which approximately 1,675 would represent an increase in students who reside on-campus), and 1,446 other individuals (e.g., visitors, patients, etc). With implementation of the 2002 LRDP, summer enrollment would increase by approximately 6,550 students, of which approximately 3,772 would be on campus on an average weekday.

The Future "Without Project" trip generation rates (for year 2011, shown in Table 16) were updated to reflect the effect of the 2002 LRDP, which would only result in a change to the commuter student trip rate. (Because the number of parking spaces available to students would be increased compared to current conditions, the per-person permit ratio, and therefore the per-person trip ratio would increase. All other parking permit allocation ratios are assumed to remain the same.) The result of this modification is shown in Table 20, Future On-Campus Trip Generation Rates.

Table 20
Future (With 2002 LRDP) On-Campus Trip Generation Rates

	Regular Session			Summer Session		
Permit Group	**Daily**	**AM Peak Hour**	**PM Peak Hour**	**Daily**	**AM Peak Hour**	**PM Peak Hour**
Faculty & Staff-Medical Center	1.504	0.190	0.195	1.354	0.171	0.175
Faculty & Staff-Other University	1.861	0.163	0.216	1.675	0.147	0.195
Resident Students						
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
Not Enrolled/Employed Off-Campus	N/A	N/A	N/A	3.350	0.280	0.400
Day's Conference Attendees	N/A	N/A	N/A	0.814	0.011	0.068
Commuter Students						
Student Academic 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
Quarterly Guest/Emeritus Permits	1.705	0.180	0.089	1.705	0.180	0.089
University Extension Permits	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

Using the future generation rates, and the proposed future allocation of parking (shown in Table 20), an estimate of how each population group would contribute to overall campus trip generation (with implementation of the 2002 LRDP) was developed, which is provided in Table 21(a). This breakdown also includes estimates for certain campus uses, such as Campus shuttle buses (which are assumed to be the same as for current conditions) and a single line entry that covers two-wheeled vehicles, through traffic and drop-offs.

Table 21(a)
Future (With 2002 LRDP) Campus Trip Generation
(Regular Session)

Permit Group	Number	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
Faculty & Staff-Medical Center	6,159	9,264	1,169	1,199
Faculty & Staff-Other University	14,339	26,690	2,339	3,104
Resident Students				
Undergraduate	9,009	1,678	24	139
Graduate	2,000	1,917	182	201
Not Enrolled/Employed Off-Campus	0	0	0	0
Commuter Students				
Student Academic Employee	3,573	4,816	503	588
Other Commuter Students	21,863	14,736	978	1,324
Quarterly Guest/Emeritus Permits	6,207	10,584	1,117	552
University Extension Permits	5,336	9,099	0	0
Daily Permit Sales	7,109	21,677	1,251	1,095
Other Parking		3,931	85	328
Two-Wheeled/Through/Drop-off Vehicles		22,042	1,345	1,169
Shuttles		2,948	229	245
Main/Southwest Campus		129,382	9,222	9,944
Wilshire Center	950	1,768	155	206
Cordon Total		131,150	9,377	10,150

For an estimate of future summer trips [shown in Table 21(b)], 90 percent of the generation rates for regular session were used for the faculty and staff. The reduction accounts for faculty with nine-month appointments who don't conduct research on campus during the summer, and similarly lower employment levels for certain staff (e.g., food service employees). The lower number of student trips (compared to regular session) reflects the fewer number of students that are on-campus during the summer.

Table 21(b)
Future (With 2002 LRDP) Campus Trip Generation
(Summer Session)

Permit Group	Number	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
Faculty & Staff-Medical Center	6,159	8,337	1,052	1,079
Faculty & Staff-Other University	14,339	24,021	2,105	2,794
Resident Students				
Undergraduate	878	446	6	37
Graduate	716	686	65	72
Not Enrolled/Employed Off-Campus	1,284	4,302	360	514
Day's Conference Attendees	1,713	1,395	20	116
Commuter Students				
Student Academic Employee	2,401	2,914	304	356
Other Commuter Students	11,057	9,787	650	879
Quarterly Guest/Emeritus Permits	6,207	10,584	1,117	552
University Extension Permits	5,336	9,099	0	0
Daily Permit Sales	7,109	21,677	1,251	1,095
Other Parking		3,931	85	328
Two-Wheeled/Through/Drop-off Vehicles		22,042	1,345	1,169
Shuttles		2,948	229	245
Main/Southwest Campus		122,169	8,589	9,236
Wilshire Center	950	1,768	155	206
Cordon Total		123,937	8,744	9,442

* This includes graduate students who are not enrolled in summer session and are assumed to be employed off-campus.

As shown in Table 21, with implementation of the 2002 LRDP, future trip generation for both the regular and summer session would remain below the cap of 139,500 average daily trips established by the 1990 LRDP.

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 identified, and are shown in Figures 10 (a) and (b) (AM and PM peak hour for the regular session) and Figures 11 (a) and (b) (AM and PM peak hour for summer session). As these figures show, implementation of the 2002 LRDP would result in small increases in traffic volumes at the study intersections during the regular session. Larger net increases would occur during summer session (due to the larger increase in student enrollment, compared to current summer enrollment), however those increases would occur during the summer, when overall traffic volumes are substantially lower at the study intersections (than during regular session). By adding the peak hour traffic volumes (associated with implementation of the 2002 LRDP, shown in Figures 10 and 11) to the projected future traffic "Without Project" volumes for the year 2011 (shown in Figures 8 and 9) , future total traffic volumes (that would occur with full implementation of the proposed 2002 LRDP) can be estimated, as shown in Figure 12 (AM and PM peak hour for regular session) and Figure 13 (AM and PM peak hour for summer session).

Alternative Transportation Impacts

As discussed above in the Environmental Setting section, UCLA currently operates a range of Transportation Demand Management programs, including vanpools, carpools, shuttle buses and support for other modes. Services are provided to all commuters, especially those without parking permits, by the Commuter Assistance-Rideshare ("CAR") office. The CAR office has achieved a ridesharing rate which meets the existing trip caps, parking cap and SCAQMD AVR goals. This study assumes that these goals will continue to be met under the 2002 LRDP. In addition, the UCLA campus is served by 19 bus lines operated by six public transit operators.

As shown in Table 22(a), there are currently about 45,579 commuters who are employed or are non-resident students at UCLA. There are 23,917 parking permits issued to these commuters, or approximately half of the total commuters. The remainder (approximately 21,662 persons) must utilize an alternative mode to travel to and from campus, including vanpools, buses, walking, bicycling, or other alternative means.

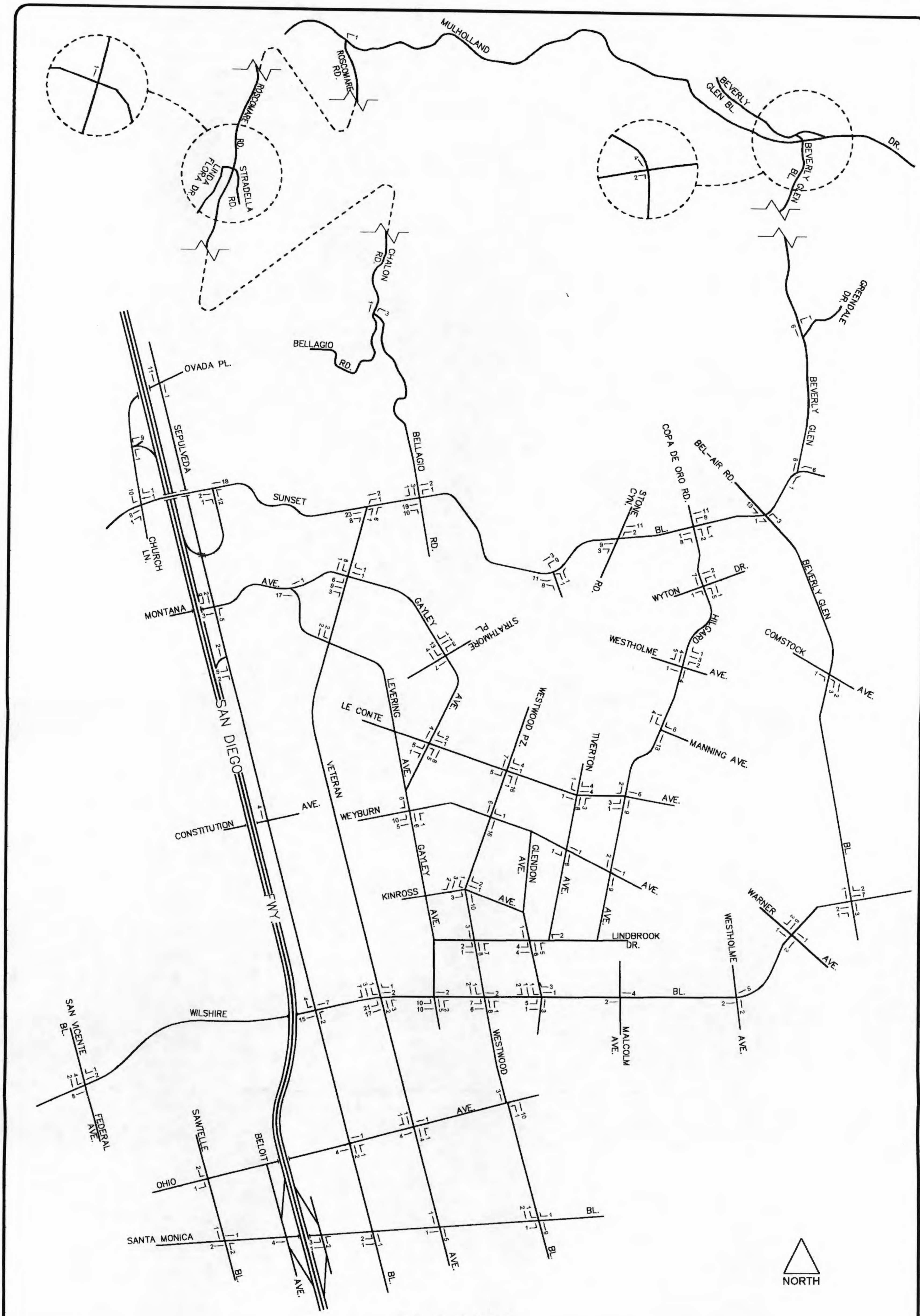

FIGURE 10(a)

UCLALRDP-01-REVISED\AMPRJVOL(REGULAR)

NET PROJECT (2002 LRDP) TRAFFIC VOLUMES
REGULAR SESSION
AM PEAK HOUR

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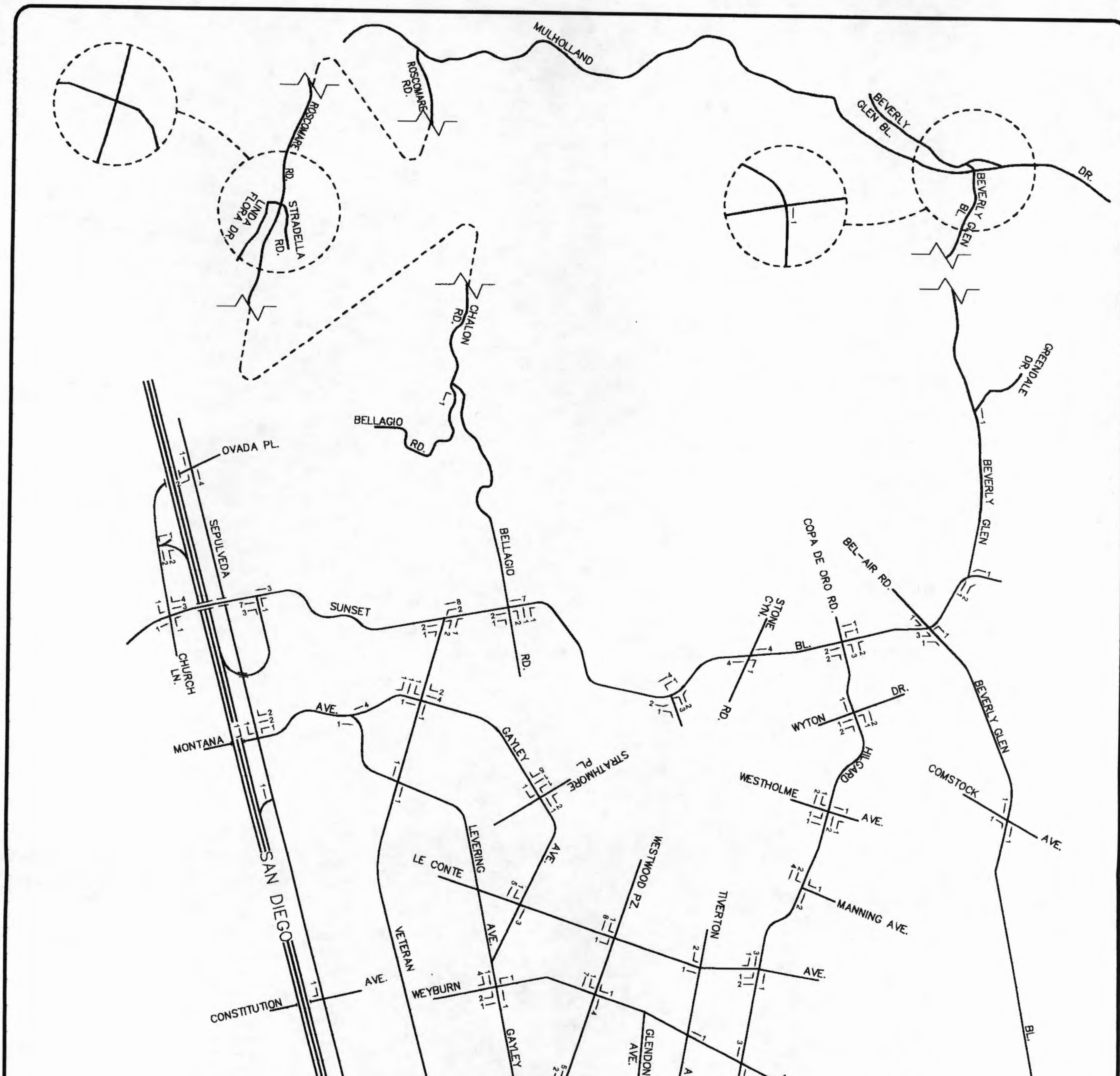

FIGURE 10(b)

UCLALRDP-01-REVISED\PMPRJVOL(REGULAR)

NET PROJECT (2002 LRDP) TRAFFIC VOLUMES
REGULAR SESSION
PM PEAK HOUR

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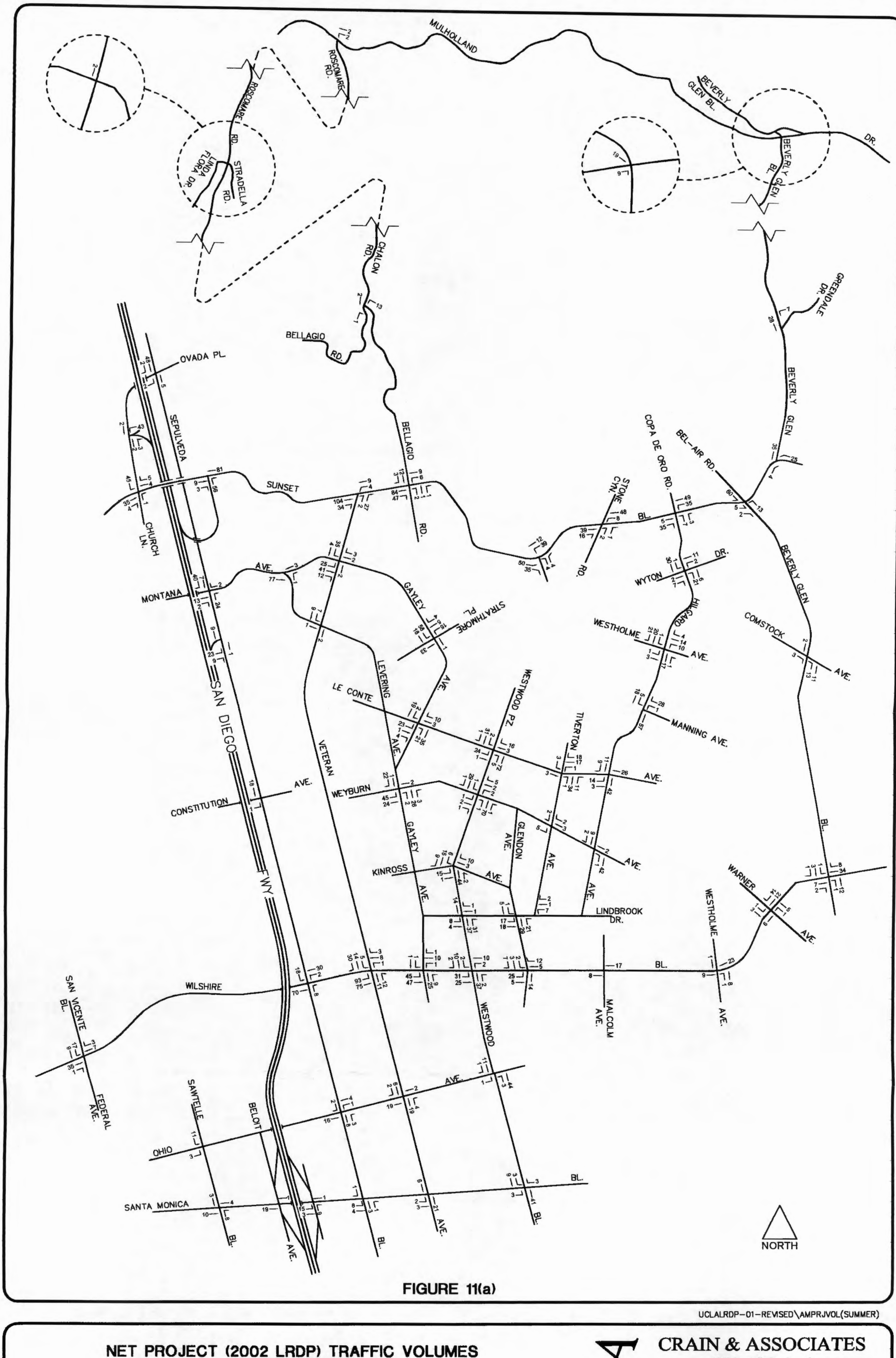

FIGURE 11(a)

UCLALRDP-01-REVISED\AMPRJVOL(SUMMER)

NET PROJECT (2002 LRDP) TRAFFIC VOLUMES
SUMMER SESSION
AM PEAK HOUR

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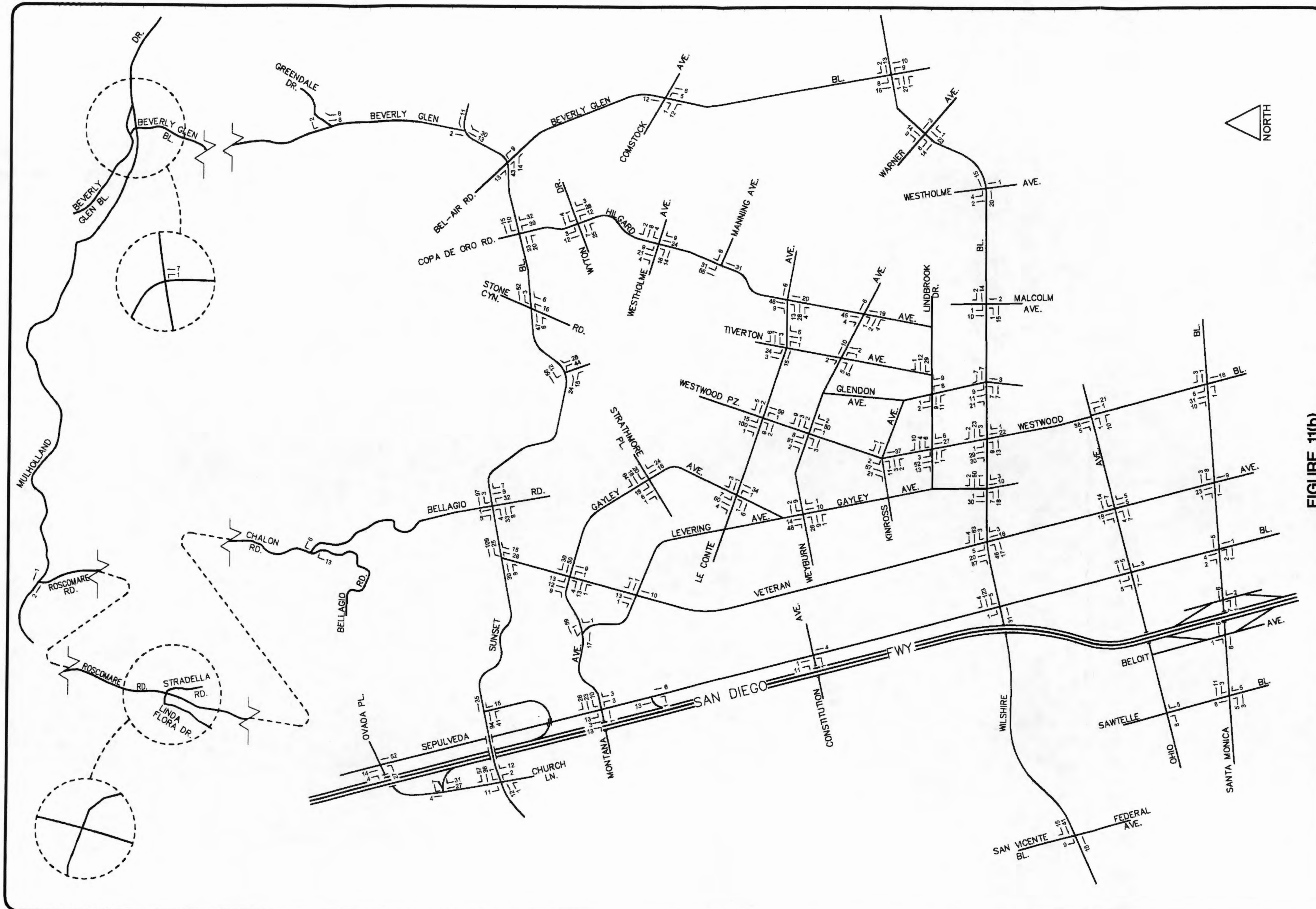

UCLALRDP-01-REVISED\PMPRJVOL(SUMMER)

FIGURE 11(b)

NET PROJECT (2002 LRDP) TRAFFIC VOLUMES
SUMMER SESSION
PM PEAK HOUR

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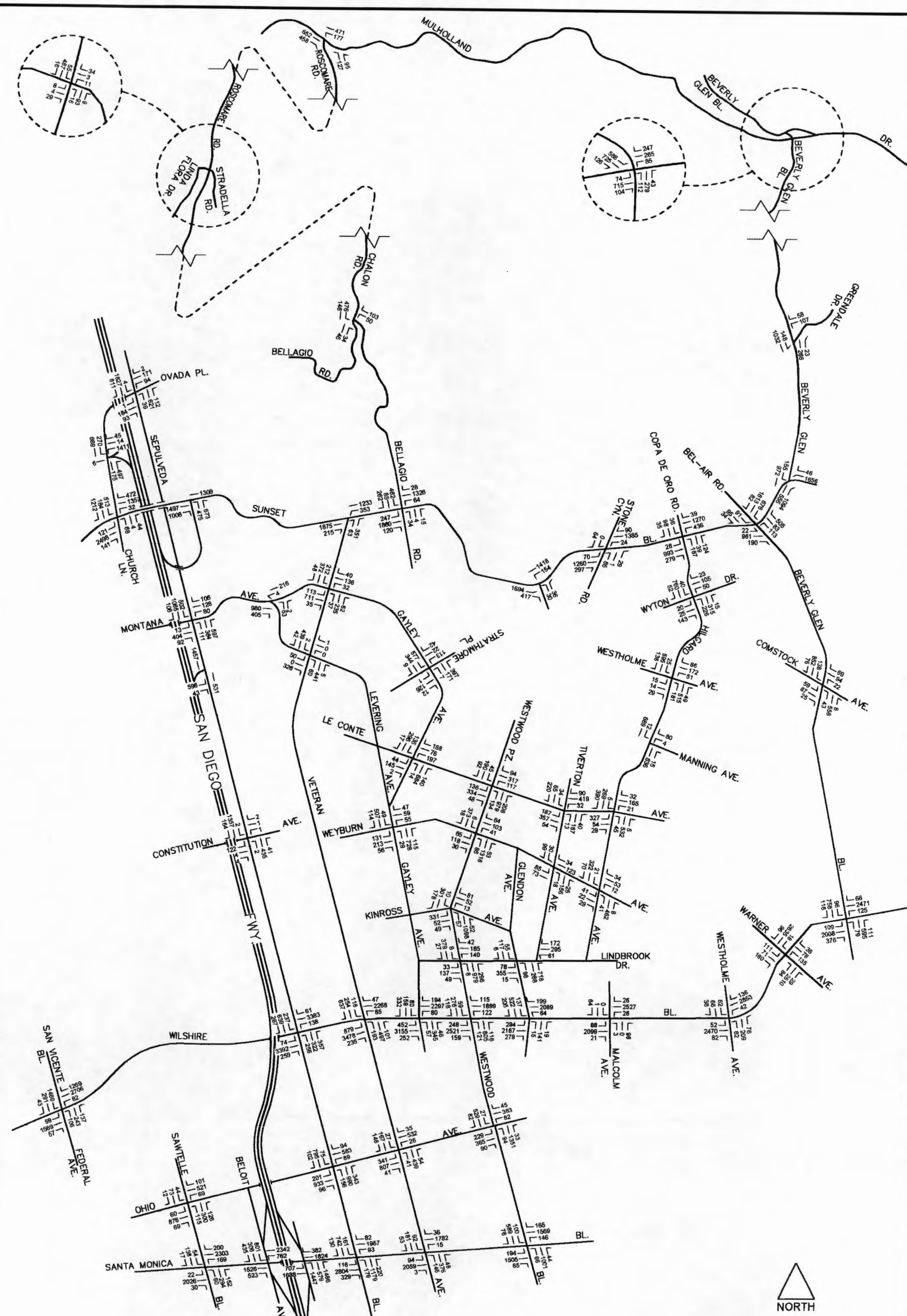

FIGURE 12(a)

UCLALRDP-01-REVISED\AM2011WP(REGULAR)

FUTURE (2011) TRAFFIC VOLUMES
WITH 2002 LRDP PROJECT (REGULAR SESSION)
AM PEAK HOUR

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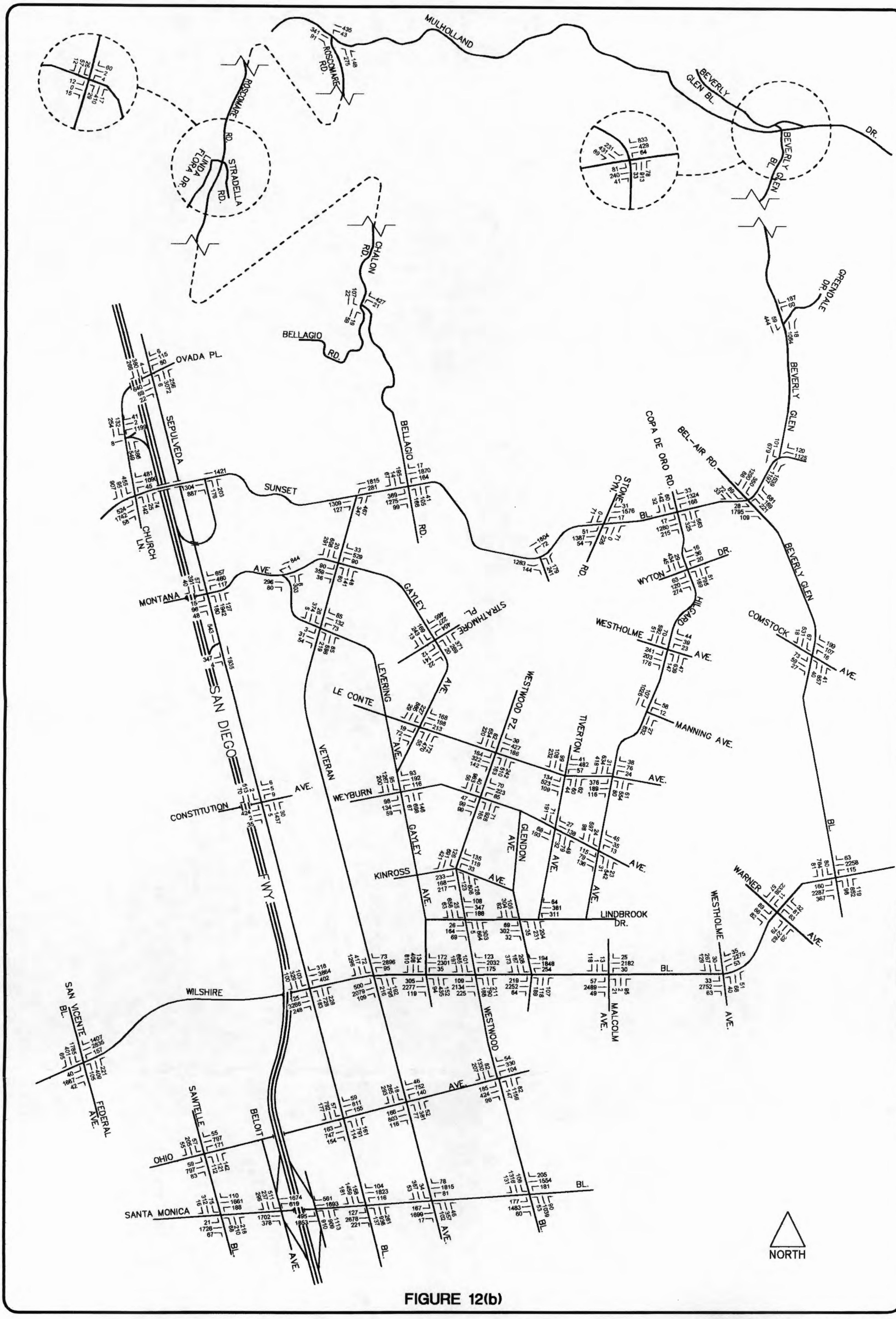

FIGURE 12(b)

UCLALRDP-01-REVISED\PM2011WP(REGULAR)

FUTURE (2011) TRAFFIC VOLUMES WITH 2002 LRDP PROJECT (REGULAR SESSION) PM PEAK HOUR

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning ·Traffic Engineering

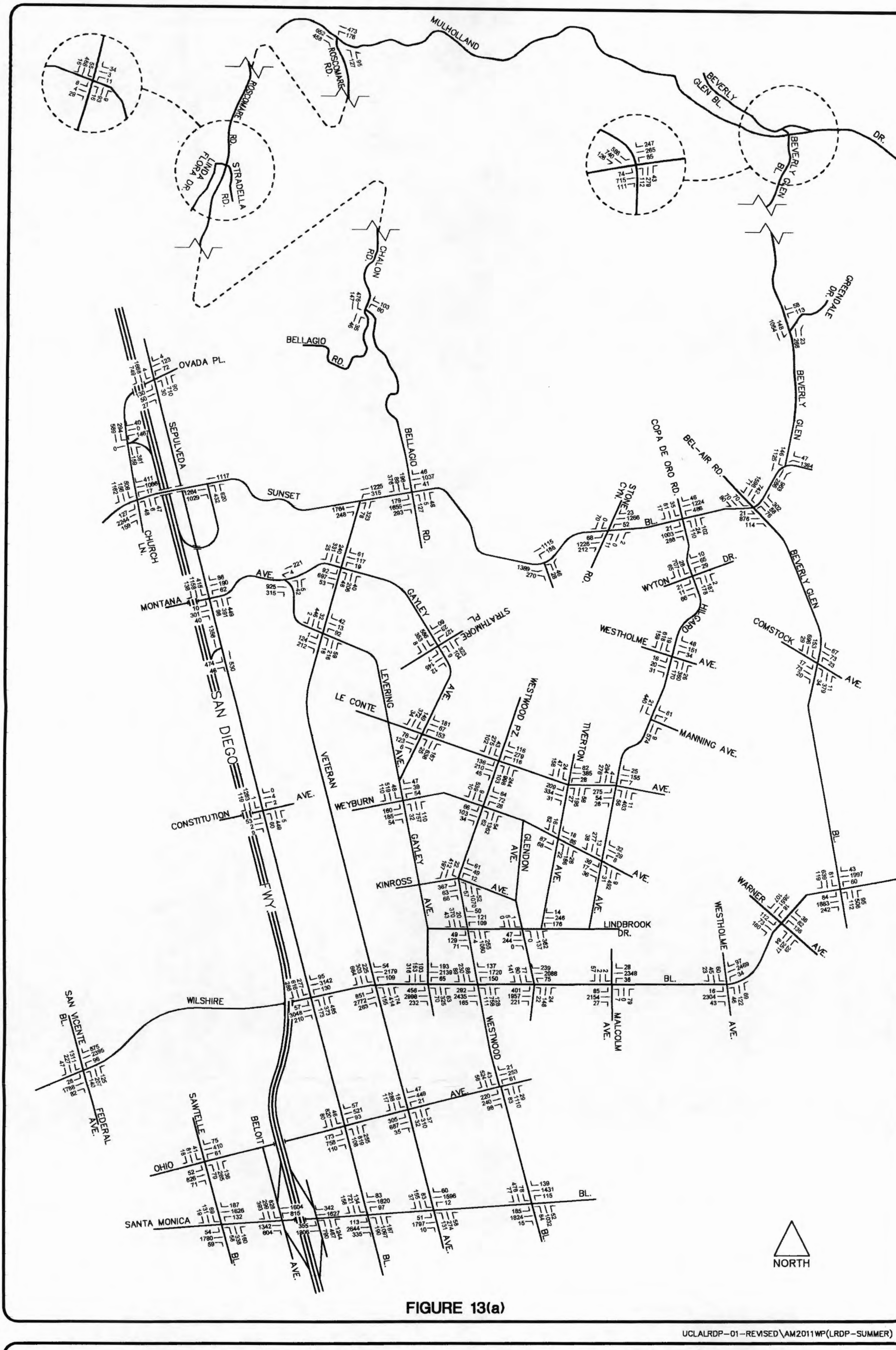

FIGURE 13(a)

UCLALRDP-01-REVISED\AM2011WP(LRDP-SUMMER)

FUTURE (2011) TRAFFIC VOLUMES WITH 2002 LRDP PROJECT (SUMMER SESSION) AM PEAK HOUR

C&A CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning ·Traffic Engineering

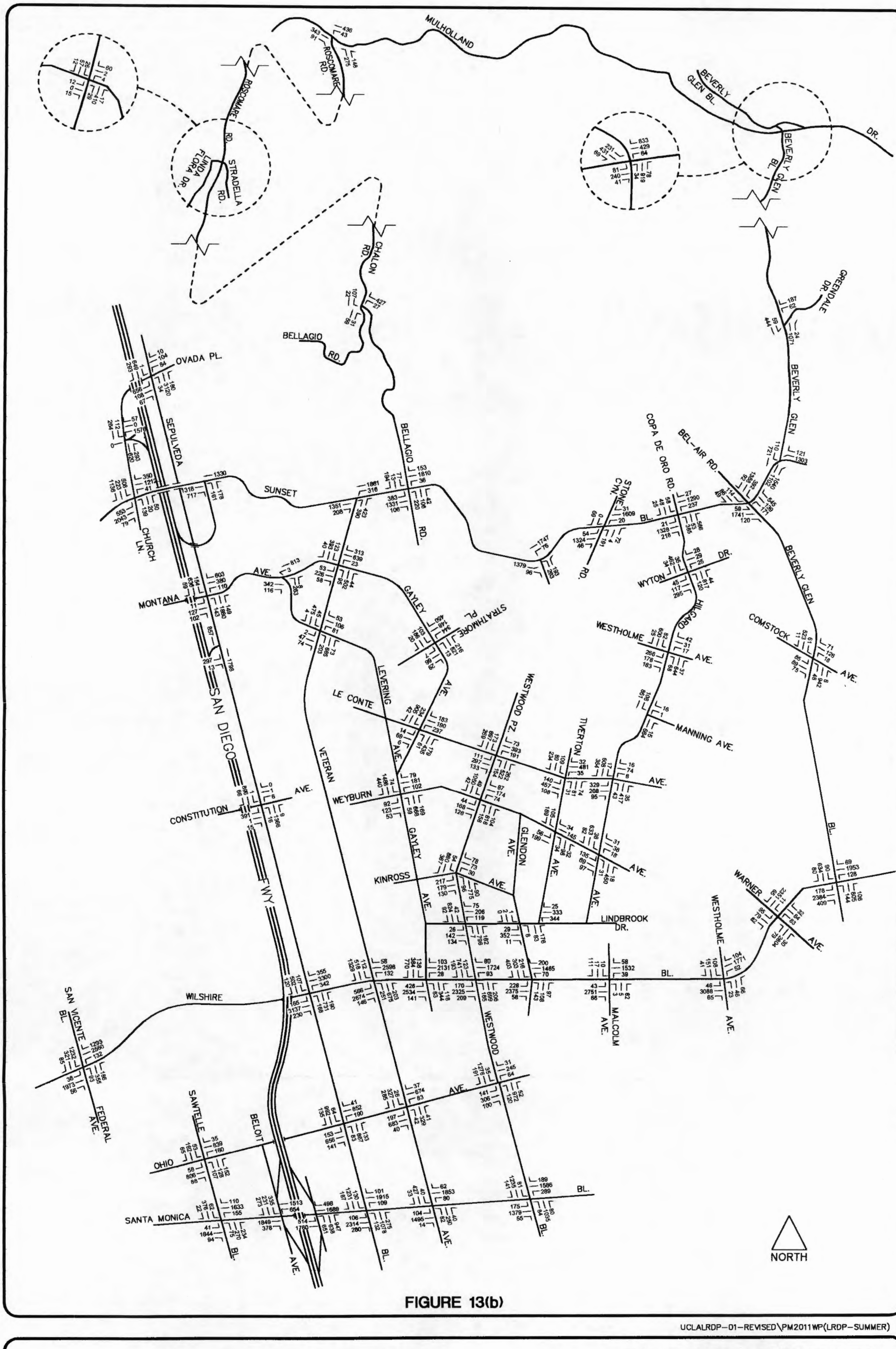

FIGURE 13(b)

UCLALRDP-01-REVISED\PM2011WP(LRDP-SUMMER)

FUTURE (2011) TRAFFIC VOLUMES
WITH 2002 LRDP PROJECT (SUMMER SESSION)
PM PEAK HOUR

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
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With implementation of the 2002 LRDP, as shown in Table 22(c), the future number of commuters without parking will increase by approximately 3,463 commuters compared to the future without project condition. However, the future number of commuters without parking would decrease by approximately 891 commuters compared to the current condition due to the combined effect of the (previously approved) Southwest Campus Graduate Student Housing project, parking increases such as the Intramural Field Parking Structure and the proposed Northwest Campus Housing Infill Project. Therefore, implementation of the 2002 LRDP would have a less than significant cumulative impact on alternative transportation modes as there would not be a net increase in UCLA ridership causing the capacity of any route to be exceeded.

Table 22(a)
Current Commuters

Group	Number	Parking Permits	Other Commuters
Faculty & Staff	18,603	14,841	3,762
Commuter Students	26,976	9,076	17,900
Total	45,579	23,917	21,662

Table 22(b)
Future (2011) Commuters -- Without Project

Group	Number	Parking Permits	Other Commuters
Faculty & Staff	18,691	14,910	3,781
Commuter Students	24,976	11,449	13,527
Total	43,667	26,359	17,308

Table 22(c)
Future (2011) Commuters -- With Proposed 2002 LRDP

Group	Number	Parking Permits	Other Commuters
Faculty & Staff	20,498	16,351	4,147
Commuter Students	25,436	8,812	16,624
Total	45,934	25,172	20,771

Intersection Impacts

By adding the estimated traffic volumes (that would result from implementation of the 2002 LRDP) to the future (Without Project) traffic volumes (shown in Figures 8 and 9), future traffic volumes that would occur with implementation of the 2002 LRDP were estimated (and are shown in Figures 12 and 13). For these traffic volumes, a Critical Movement Analysis was conducted to identify future Levels of Service (for the year 2011) and thereby 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 Tables 23 and 24. These tables also include the existing (2001) CMA conditions (from Tables 11 and 12) to permit comparison of current and future conditions, and thereby show the effects of cumulative traffic growth on the study area roadway network (which will occur even without implementation of the 2002 LRDP).

As summarized in Tables 23 and 24, with projected future traffic conditions, implementation of the 2002 LRDP would significantly impact five of the 58 study intersections during the regular session and 25 of the 58 study intersections during the summer session. Although more intersections would be impacted during the summer session, traffic conditions are generally better in the summer than during the regular session because traffic volumes at the study intersections are substantially lower, as shown in Tables 25 and 26.

Table 23
Critical Movement Analysis Summary
Existing and Future Conditons (Regular 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	
1.	Church Ln./Ovada Pl. and	AM	0.925	E	0.805	D	0.808	D	0.003	
	Sepulveda Blvd.	PM	0.960	E	1.158	F	1.160	F	0.002	
2.	San Diego Fwy. S/B On/Off Ramps and	AM	0.950	E	0.629	B	0.633	B	0.004	
	Church Ln.	PM	0.953	E	0.589	A	0.590	A	0.001	
3.	Sunset Blvd. and	AM	0.884	D	0.902	E	0.902	E	0.000	
	Church Ln.	PM	0.814	D	0.844	D	0.844	D	0.000	
4.	Sunset Blvd. and	AM	0.823	D	0.777	C	0.781	C	0.004	
	San Diego Fwy. N/B On/Off-Ramps	PM	0.544	A	0.553	A	0.555	A	0.002	
5.	Sunset Blvd. and	AM	0.892	D	0.913	E	0.925	E	0.012	*
	Veteran Ave.	PM	0.820	D	0.840	D	0.845	D	0.005	
6.	Sunset Blvd. and	AM	0.941	E	0.971	E	0.982	E	0.011	*
	Bellagio Wy.	PM	1.008	F	1.063	F	1.067	F	0.004	
7.	Sunset Blvd. and	AM	0.599	A	0.604	B	0.614	B	0.010	
	Westwood Blvd.	PM	0.609	B	0.624	B	0.626	B	0.002	
8.	Sunset Blvd. and	AM	0.505	A	0.504	A	0.508	A	0.004	
	Stone Canyon Rd.	PM	0.604	B	0.616	B	0.618	B	0.002	
9.	Sunset Blvd. and	AM	0.833	D	0.850	D	0.859	D	0.009	
	Hilgard Ave./Copa De Oro Rd.	PM	0.851	D	0.901	E	0.905	E	0.004	
10.	Sunset Blvd. and	AM	1.001	F	1.026	F	1.028	F	0.002	
	Beverly Glen Blvd.	PM	1.066	F	1.124	F	1.125	F	0.001	
11.	Sunset Blvd. (East I/S) and	AM	1.039	F	1.066	F	1.071	F	0.005	
	Beverly Glen Blvd.	PM	1.087	F	1.205	F	1.205	F	0.000	
12.	San Diego Fwy. N/B Off-Ramp and	AM	0.506	A	0.470	A	0.473	A	0.003	
	Sepulveda Blvd.	PM	0.564	A	0.487	A	0.487	A	0.000	
13.	Montana Ave. and	AM	0.931	E	1.081	F	1.086	F	0.005	
	Sepulveda Blvd.	PM	0.890	D	0.874	D	0.876	D	0.002	
14.	Montana Ave. and	AM	1.012	F	1.188	F	1.202	F	0.014	*
	Levering Ave.	PM	0.837	D	0.957	E	0.961	E	0.004	
15.	Montana Ave./Gayley Ave. and	AM	0.866	D	0.952	E	0.970	E	0.018	*
	Veteran Ave.	PM	0.999	E	1.085	F	1.091	F	0.006	
16.	Strathmore Pl. and	AM	0.697	B	0.736	C	0.751	C	0.015	
	Gayley Ave.	PM	0.625	B	0.712	C	0.715	C	0.003	
17.	Levering Ave. and	AM	0.491	A	0.540	A	0.543	A	0.003	
	Veteran Ave.	PM	0.637	B	0.743	C	0.744	C	0.001	
18.	Wyton Dr. and	AM	0.427	A	0.475	A	0.483	A	0.008	
	Hilgard Ave.	PM	0.300	A	0.361	A	0.363	A	0.002	
19.	Wyton Dr./Comstock Ave. and	AM	0.782	C	0.830	D	0.832	D	0.002	
	Beverly Glen Blvd.	PM	0.787	C	0.836	D	0.837	D	0.001	
20.	Westholme Ave. and	AM	0.450	A	0.504	A	0.511	A	0.007	
	Hilgard Ave.	PM	0.469	A	0.551	A	0.554	A	0.003	

Table 23 (cont.)
Critical Movement Analysis Summary
Existing and Future Conditons (Regular Session)

		Peak	Existing		Future Without Project		Future With Project		
No.	**Intersection**	**Hour**	**CMA**	**LOS**	**CMA**	**LOS**	**CMA**	**LOS**	**Impact**
21.	Manning Ave. and	AM	0.273	A	0.288	A	0.296	A	0.008
	Hilgard Ave.	PM	0.320	A	0.341	A	0.344	A	0.003
22.	Le Conte Ave. and	AM	0.646	B	0.699	B	0.705	C	0.006
	Gayley Ave.	PM	0.548	A	0.583	A	0.585	A	0.002
23.	Le Conte Ave. and	AM	0.602	B	0.651	B	0.658	B	0.007
	Westwood Blvd.	PM	0.572	A	0.647	B	0.651	B	0.004
24.	Le Conte Ave. and	AM	0.315	A	0.372	A	0.380	A	0.008
	Tiverton Dr.	PM	0.297	A	0.362	A	0.363	A	0.001
25.	Le Conte Ave. and	AM	0.543	A	0.602	B	0.614	B	0.012
	Hilgard Ave.	PM	0.621	B	0.716	C	0.717	C	0.001
26.	Weyburn Ave. and	AM	0.421	A	0.406	A	0.414	A	0.008
	Gayley Ave.	PM	0.691	B	0.659	B	0.663	B	0.004
27.	Weyburn Ave. and	AM	0.428	A	0.499	A	0.504	A	0.005
	Westwood Blvd.	PM	0.459	A	0.587	A	0.592	A	0.005
28.	Weyburn Ave. and	AM	0.327	A	0.383	A	0.392	A	0.009
	Tiverton Dr.	PM	0.378	A	0.463	A	0.463	A	0.000
29.	Weyburn Ave. and	AM	0.356	A	0.375	A	0.381	A	0.006
	Hilgard Ave.	PM	0.525	A	0.641	B	0.643	B	0.002
30.	Kinross Ave. and	AM	0.407	A	0.639	B	0.645	B	0.006
	Westwood Blvd.	PM	0.705	C	1.005	F	1.009	F	0.004
31.	Lindbrook Dr. and	AM	0.369	A	0.387	A	0.391	A	0.004
	Westwood Blvd.	PM	0.431	A	0.451	A	0.452	A	0.001
32.	Lindbrook Dr. and	AM	0.599	A	0.653	B	0.660	B	0.007
	Tiverton Ave.	PM	0.525	A	0.577	A	0.581	A	0.004
33.	Constitution Ave. and	AM	0.415	A	0.360	A	0.361	A	0.001
	Sepulveda Blvd.	PM	0.590	A	0.571	A	0.571	A	0.000
34.	Wilshire Blvd. and	AM	1.006	F	1.107	F	1.109	F	0.002
	San Vicente Blvd.	PM	1.142	F	1.270	F	1.270	F	0.000
35.	Wilshire Blvd. and	AM	1.056	F	1.162	F	1.165	F	0.003
	Sepulveda Blvd.	PM	1.065	F	1.152	F	1.152	F	0.000
36.	Wilshire Blvd. and	AM	0.934	E	0.977	E	0.987	E	0.010 *
	Veteran Ave.	PM	1.361	F	1.243	F	1.248	F	0.005
37.	Wilshire Blvd. and	AM	0.689	B	0.757	C	0.761	C	0.004
	Gayley Ave.	PM	0.785	C	0.831	D	0.834	D	0.003
38.	Wilshire Blvd. and	AM	0.715	C	0.728	C	0.732	C	0.004
	Westwood Blvd.	PM	0.709	C	0.745	C	0.745	C	0.000
39.	Wilshire Blvd. and	AM	0.770	C	0.818	D	0.822	D	0.004
	Glendon Ave.	PM	0.867	D	0.950	E	0.951	E	0.001
40.	Wilshire Blvd. and	AM	0.622	B	0.692	B	0.692	B	0.000
	Malcolm Ave.	PM	0.768	C	0.857	D	0.857	D	0.000

Table 23 (cont.)
Critical Movement Analysis Summary
Existing and Future Conditons (Regular Session)

			Existing		Future Without Project		Future With Project		
No.	Intersection	Peak Hour	CMA	LOS	CMA	LOS	CMA	LOS	Impact
41.	Wilshire Blvd. and	AM	0.814	D	0.950	E	0.952	E	0.002
	Westholme Ave.	PM	0.805	D	0.938	E	0.938	E	0.000
42.	Wilshire Blvd. and	AM	0.757	C	0.882	D	0.884	D	0.002
	Warner Ave.	PM	0.635	B	0.757	C	0.757	C	0.000
43.	Wilshire Blvd. and	AM	0.846	D	0.961	E	0.963	E	0.002
	Beverly Glen Blvd.	PM	0.849	D	0.981	E	0.983	E	0.002
44.	Ohio Ave. and	AM	0.943	E	0.995	E	0.996	E	0.001
	Sawtelle Blvd.	PM	0.871	D	0.919	E	0.919	E	0.000
45.	Ohio Ave. and	AM	1.008	F	1.166	F	1.169	F	0.003
	Sepulveda Blvd.	PM	0.949	E	1.032	F	1.033	F	0.001
46.	Ohio Ave. and	AM	0.819	D	0.905	E	0.909	E	0.004
	Veteran Ave.	PM	0.989	E	1.069	F	1.071	F	0.002
47.	Ohio Ave. and	AM	0.730	C	0.833	D	0.837	D	0.004
	Westwood Blvd.	PM	0.779	C	0.850	D	0.851	D	0.001
48.	Santa Monica Blvd. and	AM	0.874	D	0.922	E	0.924	E	0.002
	Sawtelle Blvd.	PM	0.836	D	0.882	D	0.882	D	0.000
49.	Santa Monica Blvd. and	AM	0.816	D	0.872	D	0.872	D	0.000
	San Diego Fwy. (S/B)	PM	0.675	B	0.713	C	0.713	C	0.000
50.	Santa Monica Blvd. and	AM	1.039	F	1.097	F	1.098	F	0.001
	San Diego Fwy. (N/B)	PM	0.837	D	0.913	E	0.913	E	0.000
51.	Santa Monica Blvd. and	AM	0.970	E	1.115	F	1.116	F	0.001
	Sepulveda Blvd.	PM	1.016	F	1.181	F	1.181	F	0.000
52.	Santa Monica Blvd. and	AM	0.875	D	0.967	E	0.971	E	0.004
	Veteran Ave.	PM	0.914	E	1.055	F	1.056	F	0.001
53.	Santa Monica Blvd. and	AM	0.812	D	0.904	E	0.908	E	0.004
	Westwood Blvd.	PM	0.852	D	0.964	E	0.964	E	0.000
54.	Roscomare Rd. and	AM	1.195	F	1.257	F	1.258	F	0.001
	Mulholland Dr.	PM	0.715	C	0.751	C	0.751	C	0.000
55.	Roscomare Rd. and	AM	0.498	A	0.524	A	0.525	A	0.001
	Stradella Rd./Linda Flora Dr.	PM	0.444	A	0.467	A	0.467	A	0.000
56.	Chalon Rd. and	AM	0.523	A	0.588	A	0.591	A	0.003
	Bellagio Rd.	PM	0.501	A	0.527	A	0.527	A	0.000
57.	Beverly Glen Blvd. and	AM	1.026	F	1.079	F	1.081	F	0.002
	Mulholland Dr.	PM	1.048	F	1.102	F	1.102	F	0.000
58.	Beverly Glen Blvd. and	AM	0.812	D	0.853	D	0.858	D	0.005
	Greendale Dr.	PM	0.811	D	0.853	D	0.853	D	0.000

An * indicates a significant impact.

Table 24
Critical Movement Analysis Summary
Existing and Future Conditons (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 Ln./Ovada Pl. and	AM	0.779	C	0.657	B	0.670	B	0.013	
	Sepulveda Blvd.	PM	0.971	E	1.176	F	1.208	F	0.032	*
2.	San Diego Fwy. S/B On/Off Ramps and	AM	0.973	E	0.642	B	0.658	B	0.016	
	Church Ln.	PM	1.193	F	0.723	C	0.734	C	0.011	
3.	Sunset Blvd. and	AM	0.767	C	0.780	C	0.787	C	0.007	
	Church Ln.	PM	0.927	E	0.966	E	0.980	E	0.014	*
4.	Sunset Blvd. and	AM	0.760	C	0.750	C	0.761	C	0.011	
	San Diego Fwy. N/B On/Off-Ramps	PM	0.413	A	0.416	A	0.453	A	0.037	
5.	Sunset Blvd. and	AM	0.812	D	0.829	D	0.882	D	0.053	*
	Veteran Ave.	PM	0.867	D	0.892	D	0.943	E	0.051	*
6.	Sunset Blvd. and	AM	0.939	E	0.885	D	0.939	E	0.054	*
	Bellagio Wy.	PM	1.042	F	1.066	F	1.122	F	0.056	*
7.	Sunset Blvd. and	AM	0.486	A	0.484	A	0.529	A	0.045	
	Westwood Blvd.	PM	0.565	A	0.578	A	0.615	B	0.037	
8.	Sunset Blvd. and	AM	0.395	A	0.390	A	0.405	A	0.015	
	Stone Canyon Rd.	PM	0.582	A	0.591	A	0.618	B	0.027	
9.	Sunset Blvd. and	AM	0.798	C	0.813	D	0.856	D	0.043	*
	Hilgard Ave./Copa De Oro Rd.	PM	0.808	D	0.855	D	0.898	D	0.043	*
10.	Sunset Blvd. and	AM	0.926	E	0.947	E	0.956	E	0.009	
	Beverly Glen Blvd.	PM	1.063	F	1.120	F	1.131	F	0.011	*
11.	Sunset Blvd. (East I/S) and	AM	0.885	D	0.904	E	0.925	E	0.021	*
	Beverly Glen Blvd.	PM	1.079	F	1.195	F	1.208	F	0.013	*
12.	San Diego Fwy. N/B Off-Ramp and	AM	0.434	A	0.395	A	0.405	A	0.010	
	Sepulveda Blvd.	PM	0.509	A	0.437	A	0.438	A	0.001	
13.	Montana Ave. and	AM	0.668	B	0.777	C	0.804	D	0.027	*
	Sepulveda Blvd.	PM	0.850	D	0.832	D	0.855	D	0.023	*
14.	Montana Ave. and	AM	0.859	D	1.011	F	1.075	F	0.064	*
	Levering Ave.	PM	0.748	C	0.855	D	0.905	E	0.050	*
15.	Montana Ave./Gayley Ave. and	AM	0.778	C	0.855	D	0.933	E	0.078	*
	Veteran Ave.	PM	0.969	E	1.053	F	1.125	F	0.072	*
16.	Strathmore Pl. and	AM	0.623	B	0.658	B	0.727	C	0.069	*
	Gayley Ave.	PM	0.466	A	0.532	A	0.574	A	0.042	
17.	Levering Ave. and	AM	0.489	A	0.537	A	0.548	A	0.011	
	Veteran Ave.	PM	0.633	B	0.741	C	0.749	C	0.008	
18.	Wyton Dr. and	AM	0.330	A	0.363	A	0.390	A	0.027	
	Hilgard Ave.	PM	0.300	A	0.362	A	0.384	A	0.022	
19.	Wyton Dr./Comstock Ave. and	AM	0.609	B	0.648	B	0.658	B	0.010	
	Beverly Glen Blvd.	PM	0.751	C	0.798	C	0.804	D	0.006	
20.	Westholme Ave. and	AM	0.390	A	0.435	A	0.468	A	0.033	
	Hilgard Ave.	PM	0.404	A	0.478	A	0.519	A	0.041	

Table 24 (cont.)
Critical Movement Analysis Summary
Existing and Future Conditons (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	
21.	Manning Ave. and Hilgard Ave.	AM	0.182	A	0.192	A	0.227	A	0.035	
		PM	0.223	A	0.237	A	0.269	A	0.032	
22.	Le Conte Ave. and Gayley Ave.	AM	0.567	A	0.615	B	0.643	B	0.028	
		PM	0.519	A	0.553	A	0.584	A	0.031	
23.	Le Conte Ave. and Westwood Blvd.	AM	0.559	A	0.606	B	0.649	B	0.043	
		PM	0.553	A	0.626	B	0.667	B	0.041	
24.	Le Conte Ave. and Tiverton Dr.	AM	0.311	A	0.367	A	0.400	A	0.033	
		PM	0.299	A	0.363	A	0.382	A	0.019	
25.	Le Conte Ave. and Hilgard Ave.	AM	0.404	A	0.451	A	0.504	A	0.053	
		PM	0.439	A	0.508	A	0.541	A	0.033	
26.	Weyburn Ave. and Gayley Ave.	AM	0.406	A	0.389	A	0.421	A	0.032	
		PM	0.779	C	0.753	C	0.794	C	0.041	*
27.	Weyburn Ave. and Westwood Blvd.	AM	0.412	A	0.479	A	0.507	A	0.028	
		PM	0.442	A	0.576	A	0.627	B	0.051	
28.	Weyburn Ave. and Tiverton Dr.	AM	0.282	A	0.330	A	0.368	A	0.038	
		PM	0.389	A	0.474	A	0.486	A	0.012	
29.	Weyburn Ave. and Hilgard Ave.	AM	0.328	A	0.345	A	0.370	A	0.025	
		PM	0.493	A	0.603	B	0.640	B	0.037	
30.	Kinross Ave. and Westwood Blvd.	AM	0.429	A	0.666	B	0.698	B	0.032	
		PM	0.560	A	0.817	D	0.863	D	0.046	*
31.	Lindbrook Dr. and Westwood Blvd.	AM	0.364	A	0.381	A	0.397	A	0.016	
		PM	0.367	A	0.358	A	0.372	A	0.014	
32.	Lindbrook Dr. and Tiverton Ave.	AM	0.294	A	0.316	A	0.342	A	0.026	
		PM	0.311	A	0.337	A	0.360	A	0.023	
33.	Constitution Ave. and Sepulveda Blvd.	AM	0.376	A	0.329	A	0.333	A	0.004	
		PM	0.531	A	0.532	A	0.537	A	0.005	
34.	Wilshire Blvd. and San Vicente Blvd.	AM	0.885	D	0.976	E	0.982	E	0.006	
		PM	0.918	E	1.024	F	1.035	F	0.011	*
35.	Wilshire Blvd. and Sepulveda Blvd.	AM	0.973	E	1.070	F	1.102	F	0.032	*
		PM	1.000	E	1.083	F	1.091	F	0.008	
36.	Wilshire Blvd. and Veteran Ave.	AM	0.847	D	0.945	E	0.990	E	0.045	*
		PM	1.292	F	1.191	F	1.248	F	0.057	*
37.	Wilshire Blvd. and Gayley Ave.	AM	0.647	B	0.710	C	0.729	C	0.019	
		PM	0.742	C	0.781	C	0.814	D	0.033	*
38.	Wilshire Blvd. and Westwood Blvd.	AM	0.699	B	0.725	C	0.741	C	0.016	
		PM	0.698	B	0.731	C	0.742	C	0.011	
39.	Wilshire Blvd. and Glendon Ave.	AM	0.621	B	0.660	B	0.684	B	0.024	
		PM	0.721	C	0.792	C	0.802	D	0.010	
40.	Wilshire Blvd. and Malcolm Ave.	AM	0.634	B	0.707	C	0.709	C	0.002	
		PM	0.824	D	0.919	E	0.932	E	0.013	*

Table 24 (cont.)
Critical Movement Analysis Summary
Existing and Future Conditons (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	
41.	Wilshire Blvd. and	AM	0.630	B	0.738	C	0.750	C	0.012	
	Westholme Ave.	PM	0.778	C	0.907	E	0.915	E	0.008	
42.	Wilshire Blvd. and	AM	0.757	C	0.882	D	0.893	D	0.011	
	Warner Ave.	PM	0.635	B	0.757	C	0.772	C	0.015	
43.	Wilshire Blvd. and	AM	0.703	C	0.799	C	0.811	D	0.012	
	Beverly Glen Blvd.	PM	0.818	D	0.945	E	0.961	E	0.016	*
44.	Ohio Ave. and	AM	0.861	D	0.909	E	0.916	E	0.007	
	Sawtelle Blvd.	PM	0.875	D	0.923	E	0.926	E	0.003	
45.	Ohio Ave. and	AM	0.815	D	0.945	E	0.959	E	0.014	*
	Sepulveda Blvd.	PM	0.965	E	1.051	F	1.059	F	0.008	
46.	Ohio Ave. and	AM	0.687	B	0.761	C	0.767	C	0.006	
	Veteran Ave.	PM	0.890	D	0.964	E	0.989	E	0.025	*
47.	Ohio Ave. and	AM	0.561	A	0.643	B	0.658	B	0.015	
	Westwood Blvd.	PM	0.641	B	0.699	B	0.713	C	0.014	
48.	Santa Monica Blvd. and	AM	0.838	D	0.884	D	0.891	D	0.007	
	Sawtelle Blvd.	PM	0.886	D	0.936	E	0.942	E	0.006	
49.	Santa Monica Blvd. and	AM	0.870	D	0.959	E	0.959	E	0.000	
	San Diego Fwy. (S/B)	PM	0.667	B	0.705	C	0.706	C	0.001	
50.	Santa Monica Blvd. and	AM	0.783	C	0.826	D	0.834	D	0.008	
	San Diego Fwy. (N/B)	PM	0.737	C	0.805	D	0.809	D	0.004	
51.	Santa Monica Blvd. and	AM	0.901	E	1.035	F	1.037	F	0.002	
	Sepulveda Blvd.	PM	0.871	D	1.014	F	1.015	F	0.001	
52.	Santa Monica Blvd. and	AM	0.729	C	0.806	D	0.817	D	0.011	
	Veteran Ave.	PM	0.873	D	1.009	F	1.026	F	0.017	*
53.	Santa Monica Blvd. and	AM	0.771	C	0.860	D	0.876	D	0.016	
	Westwood Blvd.	PM	0.841	D	0.950	E	0.961	E	0.011	*
54.	Roscomare Rd. and	AM	1.195	F	1.257	F	1.258	F	0.001	
	Mulholland Dr.	PM	0.715	C	0.751	C	0.752	C	0.001	
55.	Roscomare Rd. and	AM	0.498	A	0.524	A	0.526	A	0.002	
	Stradella Rd./Linda Flora Dr.	PM	0.444	A	0.467	A	0.467	A	0.000	
56.	Chalon Rd. and	AM	0.523	A	0.588	A	0.600	A	0.012	
	Bellagio Rd.	PM	0.501	A	0.527	A	0.543	A	0.016	
57.	Beverly Glen Blvd. and	AM	1.026	F	1.079	F	1.090	F	0.011	*
	Mulholland Dr.	PM	1.048	F	1.102	F	1.107	F	0.005	
58.	Beverly Glen Blvd. and	AM	0.812	D	0.853	D	0.877	D	0.024	*
	Greendale Dr.	PM	0.811	D	0.853	D	0.858	D	0.005	

An * indicates a significant impact.

Table 25

Comparison of Future (Without Project) Traffic Conditions at Potentially Impacted Intersections During the AM Peak Hour

	Intersection	*REGULAR SESSION*		*SUMMER SESSION*	
		CMA	*LOS*	*CMA*	*LOS*
1.	Church Ln. / Ovada Pl. and Sepulveda Blvd.	0.805	D	0.657	B
3.	Sunset Blvd. and Church Ln.	0.902	E	0.780	C
5.	Sunset Blvd. and Veteran Ave.	0.913	E	0.829	D
6.	Sunset Blvd. and Bellagio Way	0.971	E	0.885	D
9.	Sunset Blvd. and Hilgard Ave. / Copa de Oro Rd.	0.850	D	0.813	D
10.	Sunset Blvd. and Beverly Glen Blvd./Bel Air Rd.	1.026	F	0.947	E
11.	Sunset Blvd. (east I/S) and Beverly Glen Blvd.	1.066	F	0.904	E
13.	Montana Ave. and Sepulveda Blvd.	1.081	F	0.777	C
14.	Montana Ave. and Levering Ave.	1.188	F	1.011	F
15.	Montana Ave. / Gayley Ave. Veteran and Ave.	0.952	E	0.855	D
16.	Strathmore Pl. and Gayley Ave.	0.736	C	0.658	B
26.	Weyburn Avenue and Gayley Ave.	0.406	A	0.389	A
30.	Kinross Ave. and Westwood Blvd.	0.639	B	0.666	B
34.	Wilshire Blvd. and San Vicente Blvd.	1.107	F	0.976	E
35.	Wilshire Blvd. and Sepulveda Blvd.	1.162	F	1.070	F
36.	Wilshire Blvd. and Veteran Ave.	0.977	E	0.945	E
37.	Wilshire Blvd. And Gayley Ave.	0.757	C	0.710	C
40.	Wilshire Blvd. and Malcolm Ave.	0.692	B	0.707	C
43.	Wilshire Blvd. and Beverly Glen Blvd.	0.961	E	0.799	C
45.	Ohio Ave. and Sepulveda Blvd.	1.166	F	0.945	E
46.	Ohio Ave. and Veteran Ave.	0.905	E	0.761	C
52.	Santa Monica Blvd. (N) and Veteran Avenue.	0.967	E	0.806	D
53.	Santa Monica Blvd. (North) and Westwood Blvd.	0.904	E	0.860	D
57.	Beverly Glen Blvd. and Mulholland Dr.	1.079	F	1.079	F
58.	Beverly Glen Blvd. and Greendale Dr.	0.853	D	0.853	D

Table 26

Comparison of Future (Without Project) Traffic Conditions at Potentially Impacted Intersections During the PM Peak Hour

	Intersection	*REGULAR SESSION*		*SUMMER SESSION*	
		CMA	*LOS*	*CMA*	*LOS*
1.	Church Ln. / Ovada Pl. and Sepulveda Blvd.	1.158	F	1.176	F
3.	Sunset Blvd. and Church Ln.	0.844	D	0.966	E
5.	Sunset Blvd. and Veteran Ave.	0.840	D	0.892	D
6.	Sunset Blvd. and Bellagio Way	1.063	F	1.066	F
9.	Sunset Blvd. and Hilgard Ave. / Copa de Oro Rd.	0.901	E	0.855	D
10.	Sunset Blvd. and Beverly Glen Blvd./Bel Air Rd.	1.124	F	1.120	F
11.	Sunset Blvd. (east I/S) and Beverly Glen Blvd.	1.205	F	1.195	F
13.	Montana Ave. and Sepulveda Blvd.	0.874	D	0.832	D
14.	Montana Ave. and Levering Ave.	0.957	E	0.855	D
15.	Montana Ave. / Gayley Ave. Veteran and Ave.	1.085	F	1.053	F
16.	Strathmore Pl. and Gayley Ave.	0.712	C	0.532	A
26.	Weyburn Ave. and Gayley Ave.	0.659	B	0.753	C
30.	Kinross Ave. and Westwood Blvd.	1.005	F	0.817	D
34.	Wilshire Blvd. and San Vicente Blvd.	1.270	F	1.024	F
35.	Wilshire Blvd. and Sepulveda Blvd.	1.152	F	1.083	F
36.	Wilshire Blvd. and Veteran Ave.	1.243	F	1.191	F
37.	Wilshire Blvd. And Gayley Ave.	0.831	D	0.781	C
40.	Wilshire Blvd. and Malcolm Ave.	0.857	D	0.919	E
43.	Wilshire Blvd. and Beverly Glen Blvd.	0.981	E	0.945	E
45.	Ohio Ave. and Sepulveda Blvd.	1.032	F	1.051	F
46.	Ohio Ave. and Veteran Ave.	1.069	F	0.964	E
52.	Santa Monica Blvd. (N) and Veteran Avenue	1.055	F	1.009	F
53.	Santa Monica Blvd. (North) and Westwood Blvd.	0.964	E	0.950	E
57.	Beverly Glen Blvd. and Mulholland Dr.	1.102	F	1.102	F
58.	Beverly Glen Blvd. and Greendale Dr.	0.853	D	0.853	D

Regional Transportation System Impacts

To address the increasing public concern that traffic congestion was impacting the quality of life and economic vitality of the State of California, the Congestion Management Program ("CMP") was enacted by Proposition 111. The intent of the CMP is to provide the analytical basis for transportation decisions through the State Transportation Improvement Program ("STIP") process. A Countywide approach has been established by the Metropolitan Transportation Authority and the local agency to implement the statutory requirements of the CMP. The Countywide approach includes designating a highway network that includes all state highways and principal arterials with the County and monitoring the network's level of service standards. This monitoring of the CMP network is one of the responsibilities of local jurisdictions. If level of service standards deteriorate, then local jurisdictions must prepare a deficiency plan to be in conformance with the Countywide plan.

All development projects which are required to prepare an EIR are subject to the Land Use Analysis program of the CMP. This requirement is to provide 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 project on the regional transportation system (e.g., the freeway network), the results of the computerized transportation model were again examined. Year 2011 freeway volumes, including the full buildout of the without projects scenario, were forecast in the same manner as for the surface street study intersections.

The future year 2011 freeway volumes are shown in Tables 27 and 28. Traffic volumes attributable to the Proposed 2002 LRDP, as determined earlier, were then analyzed as an incremental increase to the future "Without Project" traffic volumes, resulting in the

"With Proposed 2002 LRDP" traffic volumes, also provided in Tables 27 and 28. This methodology allowed for both an assessment of overall future freeway conditions and a determination of project impacts to these regional transportation facilities, as indicated in these tables.

The CMP defines regional project impacts as significant if the D/C ratio increases by 0.020 or more and the final (With Project) LOS is F. According to Table 27 and 28, all of the analyzed freeway segments would be operating at LOS E or F in one or both peak hours. However, the San Diego Freeway and the Santa Monica Freeway would not experience a significant impact as a result of the UCLA Proposed 2002 LRDP buildout.

Table 27
Future (2011) Freeway Traffic Volumes and Levels of Service During Regular Session

						"Without Project" Traffic Conditions				"With 2002 LRDP" Traffic Conditions				
No.	Location	Peak Hour	Dir	No. Lanes	Freeway Capacity	Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Impact
1.	San Diego Fwy. (I-405) South of Santa Monica Fwy.	AM	N/B	5	10,000	322,700	13,070	1.307	F(1)	322,900	13,089	1.309	F(1)	0.002
		PM		5	10,000		11,760	1.176	F(0)		11,761	1.176	F(0)	0.000
		AM	S/B	5	10,000		7,830	0.783	D		7,832	0.783	D	0.000
		PM		5	10,000		10,950	1.095	F(0)		10,955	1.096	F(0)	0.001
2.	San Diego Fwy. (I-405) Btwn. Santa Monica Fwy. & Santa Monica Bl.	AM	N/B	5	10,000	329,100	8,670	0.867	D	329,500	8,704	0.870	D	0.003
		PM		5	10,000		11,930	1.193	F(0)		11,933	1.193	F(0)	0.000
		AM	S/B	5	10,000		12,520	1.252	F(1)		12,524	1.252	F(1)	0.000
		PM		5	10,000		11,110	1.111	F(0)		11,119	1.112	F(0)	0.001
3.	San Diego Fwy. (I-405) Btwn. Wilshire Bl. & Santa Monica Bl.	AM	N/B	6	12,000	306,800	8,110	0.676	C	307,200	8,145	0.679	C	0.003
		PM		6	12,000		11,860	0.988	E		11,864	0.989	E	0.001
		AM	S/B	6	12,000		11,710	0.976	E		11,714	0.976	E	0.000
		PM		6	12,000		9,700	0.808	D		9,709	0.809	D	0.001
4.	San Diego Fwy. (I-405) Btwn. Sunset Bl. & Wilshire Bl.	AM	N/B	5	10,000	278,100	7,320	0.732	C	278,300	7,333	0.733	C	0.001
		PM		5	10,000		12,550	1.255	F(1)		12,553	1.255	F(1)	0.000
		AM	S/B	5	10,000		10,550	1.055	F(0)		10,555	1.056	F(0)	0.001
		PM		5	10,000		6,870	0.687	C		6,874	0.687	C	0.000
5.	San Diego Fwy. (I-405) North of Sunset Bl.	AM	N/B	6*	11,600	276,000	7,200	0.621	C	276,200	7,203	0.621	C	0.000
		PM		6*	11,600		12,340	1.064	F(0)		12,347	1.064	F(0)	0.000
		AM	S/B	5*	9,600		10,390	1.082	F(0)		10,408	1.084	F(0)	0.002
		PM		5*	9,600		6,770	0.705	C		6,771	0.705	C	0.000
6.	Santa Monica Fwy. (I-10) Btwn. Bundy Dr. & San Diego Fwy.	AM	W/B	5	10,000	268,600	7,970	0.797	D	268,700	7,971	0.797	D	0.000
		PM		5	10,000		10,340	1.034	F(0)		10,342	1.034	F(0)	0.000
		AM	E/B	5	10,000		10,580	1.058	F(0)		10,586	1.059	F(0)	0.001
		PM		5	10,000		9,830	0.983	E		9,831	0.983	E	0.000
7.	Santa Monica Fwy. (I-10) Btwn. Overland Ave. & National Bl.	AM	W/B	4	10,000	281,400	7,790	0.779	D	281,500	7,800	0.780	D	0.001
		PM		4	10,000		7,930	0.793	D		7,931	0.793	D	0.000
		AM	E/B	5	8,000		8,810	1.101	F(0)		8,812	1.102	F(0)	0.001
		PM		5	8,000		10,120	1.265	F(1)		10,123	1.265	F(1)	0.000

* Includes high-occupancy vehicle lane.

Note: LOS designations based on criteria detailed in Appendix D, Exhibit D-6, page D-40, 1997, Los Angeles County CMP.

Table 28
Future (2011) Freeway Traffic Volumes and Levels of Service During Summer Session

						"Without Project" Traffic Conditions				"With 2002 LRDP" Traffic Conditions				
No.	Location	Peak Hour	Dir	No. Lanes	Freeway Capacity	Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Impact
1.	San Diego Fwy. (I-405)	AM	N/B	5	10,000	322,700	13,070	1.307	F(1)	324,100	13,154	1.315	F(1)	0.008
	South of Santa Monica Fwy.	PM		5	10,000		11,760	1.176	F(0)		11,780	1.178	F(0)	0.002
		AM	S/B	5	10,000		7,830	0.783	D		7,840	0.784	D	0.001
		PM		5	10,000		10,950	1.095	F(0)		11,021	1.102	F(0)	0.007
2.	San Diego Fwy. (I-405)	AM	N/B	5	10,000	329,100	8,670	0.867	D	331,600	8,823	0.882	D	0.015
	Btwn. Santa Monica Fwy. & Santa Monica Bl.	PM		5	10,000		11,930	1.193	F(0)		11,974	1.197	F(0)	0.004
		AM	S/B	5	10,000		12,520	1.252	F(1)		12,539	1.254	F(1)	0.002
		PM		5	10,000		11,110	1.111	F(0)		11,234	1.123	F(0)	0.012
3.	San Diego Fwy. (I-405)	AM	N/B	6	12,000	306,800	8,110	0.676	C	309,400	8,270	0.689	C	0.013
	Btwn. Wilshire Bl. & Santa Monica Bl.	PM		6	12,000		11,860	0.988	E		11,908	0.992	E	0.004
		AM	S/B	6	12,000		11,710	0.976	E		11,729	0.977	E	0.001
		PM		6	12,000		9,700	0.808	D		9,825	0.819	D	0.011
4.	San Diego Fwy. (I-405)	AM	N/B	5	10,000	278,100	7,320	0.732	C	279,400	7,381	0.738	C	0.006
	Btwn. Sunset Bl. & Wilshire Bl.	PM		5	10,000		12,550	1.255	F(1)		12,584	1.258	F(1)	0.003
		AM	S/B	5	10,000		10,550	1.055	F(0)		10,572	1.057	F(0)	0.002
		PM		5	10,000		6,870	0.687	C		6,925	0.693	C	0.006
5.	San Diego Fwy. (I-405)	AM	N/B	6*	11,600	276,000	7,200	0.621	C	277,500	7,212	0.622	C	0.001
	North of Sunset Bl.	PM		6*	11,600		12,340	1.064	F(0)		12,430	1.072	F(0)	0.008
		AM	S/B	5*	9,600		10,390	1.082	F(0)		10,474	1.091	F(0)	0.009
		PM		5*	9,600		6,770	0.705	C		6,789	0.707	C	0.002
6.	Santa Monica Fwy. (I-10)	AM	W/B	5	10,000	268,600	7,970	0.797	D	269,000	7,974	0.797	D	0.000
	Btwn. Bundy Dr. & San Diego Fwy.	PM		5	10,000		10,340	1.034	F(0)		10,365	1.037	F(0)	0.003
		AM	E/B	5	10,000		10,580	1.058	F(0)		10,607	1.061	F(0)	0.003
		PM		5	10,000		9,830	0.983	E		9,838	0.984	E	0.001
7.	Santa Monica Fwy. (I-10)	AM	W/B	4	10,000	281,400	7,790	0.779	D	282,300	7,836	0.784	D	0.005
	Btwn. Overland Ave. & National Bl.	PM		4	10,000		7,930	0.793	D		7,946	0.795	D	0.002
		AM	E/B	5	8,000		8,810	1.101	F(0)		8,818	1.102	F(0)	0.001
		PM		5	8,000		10,120	1.265	F(1)		10,161	1.270	F(1)	0.005

* Includes high-occupancy vehicle lane.

Note: LOS designations based on criteria detailed in Appendix D, Exhibit D-6, page D-40, 1997, Los Angeles County CMP.

MITIGATION MEASURES

As shown in Tables 23 and 24, implementation of the 2002 LRDP would result in significant impacts at five of the 58 study intersections during the regular session, and at 25 of the 58 study intersections during the summer. As shown in Tables 25 and 26, traffic conditions at those 25 intersections are generally better (as indicated by a lower CMA value and/or better LOS) during the summer session compared to the regular session (and in some cases, substantially better). To determine the feasibility of mitigating impacts at these intersections, the following mitigation measures (beyond trip reductions previously adopted for the 1990 LRDP, and the capacity enhancements adopted for the Southwest Campus Housing and Parking Project, the Intramural Field Parking Structure Project and Academic Health Center Project) have been identified.

Adaptive Traffic Control System ("ATCS")

The City of Los Angeles is currently phasing installation of the Automated Traffic Surveillance and Control ("ATSAC") system throughout the City, which provides an at least 7 percent increase in capacity and even greater reductions in stops and delay. 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 is able to increase capacity by an additional 3 percent or more. As mitigation for the impacts of the proposed 2002 LRDP, UCLA could participate in funding the cost of installing ATCS at the significantly impacted intersections.

It should be noted that not all intersections are able to be added to the City's ATCS. The segment of Sunset Boulevard from the I-405 to Veteran Avenue has already been used to form an ATCS. As part of the Intramural Field Parking Structure, UCLA will fund the extension of this system to include a series of intersections up to and including Beverly Glen Boulevard at Sunset Boulevard (East Intersection). As these intersections are already within or scheduled to be in ATCS, this system is not available as mitigation of potential LRDP impacts. Likewise, other intersections, such as Wilshire Boulevard and Sepulveda Boulevard, have been offered to the City for funding as part of the Southwest Campus project.

Beyond ATCS, physical improvements at intersections could also be used to mitigate impacts, including restriping or widening to create dedicated turn lanes. Potential mitigation options for each intersection were reviewed, including mitigation that may have been considered in conjunction with previous UCLA projects, including Parking Structure 4 Expansion, 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.

To mitigate the potential impacts of LRDP implementation during the regular session, the following mitigation options have been identified for each intersection.

<u>Intersection No. 5—Sunset Boulevard and Veteran Avenue</u>

ATCS has already been installed at the intersection of Sunset Boulevard and Veteran Avenue (as part of a larger installation along Sunset from the San Diego Freeway eastward to Veteran), 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 the Veteran intersection, 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 over 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

- 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 over 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, specimen trees and on-street parking and result in 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 increase 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 modifications options would result in the loss of landscaping, which may include specimen 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, which 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 specimen 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 result in adverse cultural resource impacts to the Bel-Air west gate.

The identified physical modifications options would result in the loss of landscaping, which may include specimen trees, and 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, and therefore is considered infeasible. No other feasible mitigation options have been identified for this intersection.

Intersection No.15—Montana Avenue/Gayley Avenue and Veteran Avenue

This intersection is currently controlled by 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. 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, to widen 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 been rejected previously 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 specimen 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, particularly in the North Village where a large number of UCLA students reside in multi-family dwellings, many with inadequate on-site parking. Therefore the University considers this measure infeasible. 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 included widening the east side of Veteran Avenue (on University property) and restripe 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 roadway [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 Wilshire Boulevard, or on the west side of the roadway north of Wilshire Boulevard) is not considered feasible. Additional widening of Veteran Avenue on the east side, 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 Impacts during Regular Session

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 (AM peak)

6. Sunset Boulevard and Bellagio Way (AM peak)

14. Montana Avenue and Levering Avenue (AM peak)

36. Wilshire Boulevard and Veteran Avenue (AM peak)

Implementation of ATCS at the intersection of Montana Avenue/Gayley Avenue and Veteran Avenue would reduce the impact to a less-than-significant level. Implementation of the 2002 LRDP would result in significant and unavoidable impacts during the regular session at the four intersections listed above during the AM peak hour.

Mitigation for Summer Session

To address the potentially significant impacts of implementation of the 2002 LRDP during the summer session, various mitigation options were identified for each intersection and 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 of regular session mitigation for this intersection. No feasible mitigation measures have been identified for this intersection.

Intersection No. 6—Sunset Boulevard and Bellagio Way

Refer to the discussion of regular session mitigation for this intersection. No feasible mitigation measures have been identified for this intersection.

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 (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 either 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 specimen trees located adjacent to the roadway. None of these measures are considered feasible. 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 accord 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. Acquisition of additional land by the City of Los Angeles would likely be opposed by the local community, and 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 accord 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. Acquisition of additional land by the City of Los Angeles would likely be opposed by the local community, and is considered infeasible. No other feasible mitigation options 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 and would mitigate the impact of LRDP implementation during the summer session 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, because Montana Avenue utilizes the entire roadway passing underneath the San Diego Freeway, and because of the proximity of Sepulveda Boulevard to the San Diego Freeway (to the west). Widening to the east would likely be opposed by the local community and is therefore considered infeasible. No other feasible mitigation measures have been identified for this intersection.

Intersection No. 14—Montana Avenue and Levering Avenue

Refer to the discussion of regular session mitigation for 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 of regular session mitigation for this intersection. ATCS installation 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 and would mitigate the impact of LRDP implementation during the summer session 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 (AHC C-7) to restripe Gayley Avenue to create a dedicated northbound right turn lane (for vehicle turning onto Strathmore Place) and a right 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 additional restriping which could result in loss of on-street parking, or widening, which would result in the loss of parkway landscaping and could result in the loss of on-street parking. Therefore further improvement of this intersection is considered 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 and would mitigate the impact of LRDP implementation during the summer session 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 and is therefore considered infeasible. No other feasible mitigation options have been identified for this intersection.

Intersection No. 30—Kinross Avenue 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 and would mitigate the impact of LRDP implementation during the summer session 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 and is therefore 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 and would mitigate the impact of LRDP implementation during the summer session 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 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 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 of regular session mitigation for 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 and would mitigate the impact of LRDP implementation during the summer session 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 is not feasible because of 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. 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 measure is technically feasible. 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 and would mitigate the impact of LRDP implementation during the summer session 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 require acquisition of additional land (by the City of Los Angeles) which would likely be opposed by the local community 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 and would mitigate the impact of LRDP implementation during the summer session 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) and is 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 and would mitigate the impact of LRDP implementation during the summer session 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. With this mitigation, 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, it is technically feasible. 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 and would mitigate the impact of LRDP implementation during the summer session 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. 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 and would mitigate the impact of LRDP implementation during the summer session 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 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 and would mitigate the impact of LRDP implementation during the summer session 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. With this mitigation, 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 eight on-street parking spaces, it is technically feasible. No other feasible mitigation measures have been identified at this location.

Residual Impacts During Summer Session

As described previously, mitigation measures are described for many of the significantly impacted study intersections. However, with the implementation of all described mitigation measures (that were not rejected as infeasible), Table 29 indicates that impacts would remain significant and unavoidable for the Regular Session. During the summer session, impacts at 12 study intersections would remain significant and unavoidable. These intersections are summarized below.

No.	Intersection
1	Church Lane/Ovada Place and Sepulveda Boulevard
3	Sunset Boulevard and Church Lane
5	Sunset Boulevard and Veteran Avenue
6	Sunset Boulevard and Bellagio Way
9	Sunset Boulevard and Hilgard Avenue/Copa De Oro Road
10	Sunset Boulevard and Beverly Glen Boulevard/ Bel Air Road
11	Sunset Boulevard (East I/S) and Beverly Glen Boulevard
14	Montana Avenue and Levering Avenue
15	Montana Avenue/Gayley Avenue and Veteran Avenue
35	Wilshire Boulevard and Sepulveda Boulevard
36	Wilshire Boulevard and Veteran Avenue
57	Beverly Glen Boulevard and Mulholland Drive

It should also be noted that the signal and physical street improvements outlined in this report are beyond the control of the University of California, Board of Regents to implement. While all measures are all technically feasible, one or more measures may be rejected by a controlling jurisdiction. In that event, unless a new measure of equivalent cost and effectiveness is identified, significant traffic impacts could remain at up to 25 intersections during the summer session.

Table 29
Critical Movement Analysis Summary
Existing and Future Conditons (Regular Session) -- With 2002 LRDP Plus Mitigation

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	Future With Project + Mitigation CMA	Future With Project + Mitigation LOS	Future With Project + Mitigation Impact
1.	Church Ln./Ovada Pl. and	AM	0.925	E	0.805	D	0.808	D	0.003	0.808	D	0.003
	Sepulveda Blvd.	PM	0.960	E	1.158	F	1.160	F	0.002	1.160	F	0.002
2.	San Diego Fwy. S/B On/Off Ramps and	AM	0.950	E	0.629	B	0.633	B	0.004	0.633	B	0.004
	Church Ln.	PM	0.953	E	0.589	A	0.590	A	0.001	0.590	A	0.001
3.	Sunset Blvd. and	AM	0.884	D	0.902	E	0.902	E	0.000	0.902	E	0.000
	Church Ln.	PM	0.814	D	0.844	D	0.844	D	0.000	0.844	D	0.000
4.	Sunset Blvd. and	AM	0.823	D	0.777	C	0.781	C	0.004	0.781	C	0.004
	San Diego Fwy. N/B On/Off-Ramps	PM	0.544	A	0.553	A	0.555	A	0.002	0.555	A	0.002
5.	Sunset Blvd. and	AM	0.892	D	0.913	E	0.925	E	0.012 *	0.925	E	0.012 *
	Veteran Ave.	PM	0.820	D	0.840	D	0.845	D	0.005	0.845	D	0.005
6.	Sunset Blvd. and	AM	0.941	E	0.971	E	0.982	E	0.011 *	0.982	E	0.011 *
	Bellagio Wy.	PM	1.008	F	1.063	F	1.067	F	0.004	1.067	F	0.004
7.	Sunset Blvd. and	AM	0.599	A	0.604	B	0.614	B	0.010	0.614	B	0.010
	Westwood Blvd.	PM	0.609	B	0.624	B	0.626	B	0.002	0.626	B	0.002
8.	Sunset Blvd. and	AM	0.505	A	0.504	A	0.508	A	0.004	0.508	A	0.004
	Stone Canyon Rd.	PM	0.604	B	0.616	B	0.618	B	0.002	0.618	B	0.002
9.	Sunset Blvd. and	AM	0.833	D	0.850	D	0.859	D	0.009	0.859	D	0.009
	Hilgard Ave./Copa De Oro Rd.	PM	0.851	D	0.901	E	0.905	E	0.004	0.905	E	0.004
10.	Sunset Blvd. and	AM	1.001	F	1.026	F	1.028	F	0.002	1.028	F	0.002
	Beverly Glen Blvd.	PM	1.066	F	1.124	F	1.125	F	0.001	1.125	F	0.001
11.	Sunset Blvd. (East I/S) and	AM	1.039	F	1.066	F	1.071	F	0.005	1.071	F	0.005
	Beverly Glen Blvd.	PM	1.087	F	1.205	F	1.205	F	0.000	1.205	F	0.000
12.	San Diego Fwy. N/B Off-Ramp and	AM	0.506	A	0.470	A	0.473	A	0.003	0.473	A	0.003
	Sepulveda Blvd.	PM	0.564	A	0.487	A	0.487	A	0.000	0.487	A	0.000
13.	Montana Ave. and	AM	0.931	E	1.081	F	1.086	F	0.005	1.056	F	-0.025
	Sepulveda Blvd.	PM	0.890	D	0.874	D	0.876	D	0.002	0.846	D	-0.028
14.	Montana Ave. and	AM	1.012	F	1.188	F	1.202	F	0.014 *	1.202	F	0.014 *
	Levering Ave.	PM	0.837	D	0.957	E	0.961	E	0.004	0.961	E	0.004
15.	Montana Ave./Gayley Ave. and	AM	0.866	D	0.952	E	0.970	E	0.018 *	0.940	E	-0.012
	Veteran Ave.	PM	0.999	E	1.085	F	1.091	F	0.006	1.061	F	-0.024

Table 29 (cont.)
Critical Movement Analysis Summary
Existing and Future Conditons (Regular Session) -- With 2002 LRDP Plus Mitigation

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	Future With Project + Mitigation CMA	Future With Project + Mitigation LOS	Future With Project + Mitigation Impact
16.	Strathmore Pl. and	AM	0.697	B	0.736	C	0.751	C	0.015	0.721	C	-0.015
	Gayley Ave.	PM	0.625	B	0.712	C	0.715	C	0.003	0.685	B	-0.027
17.	Levering Ave. and	AM	0.491	A	0.540	A	0.543	A	0.003	0.543	A	0.003
	Veteran Ave.	PM	0.637	B	0.743	C	0.744	C	0.001	0.744	C	0.001
18.	Wyton Dr. and	AM	0.427	A	0.475	A	0.483	A	0.008	0.483	A	0.008
	Hilgard Ave.	PM	0.300	A	0.361	A	0.363	A	0.002	0.363	A	0.002
19.	Wyton Dr./Comstock Ave. and	AM	0.782	C	0.830	D	0.832	D	0.002	0.832	D	0.002
	Beverly Glen Blvd.	PM	0.787	C	0.836	D	0.837	D	0.001	0.837	D	0.001
20.	Westholme Ave. and	AM	0.450	A	0.504	A	0.511	A	0.007	0.511	A	0.007
	Hilgard Ave.	PM	0.469	A	0.551	A	0.554	A	0.003	0.554	A	0.003
21.	Manning Ave. and	AM	0.273	A	0.288	A	0.296	A	0.008	0.296	A	0.008
	Hilgard Ave.	PM	0.320	A	0.341	A	0.344	A	0.003	0.344	A	0.003
22.	Le Conte Ave. and	AM	0.646	B	0.699	B	0.705	C	0.006	0.705	C	0.006
	Gayley Ave.	PM	0.548	A	0.583	A	0.585	A	0.002	0.585	A	0.002
23.	Le Conte Ave. and	AM	0.602	B	0.651	B	0.658	B	0.007	0.658	B	0.007
	Westwood Blvd.	PM	0.572	A	0.647	B	0.651	B	0.004	0.651	B	0.004
24.	Le Conte Ave. and	AM	0.315	A	0.372	A	0.380	A	0.008	0.380	A	0.008
	Tiverton Dr.	PM	0.297	A	0.362	A	0.363	A	0.001	0.363	A	0.001
25.	Le Conte Ave. and	AM	0.543	A	0.602	B	0.614	B	0.012	0.614	B	0.012
	Hilgard Ave.	PM	0.621	B	0.716	C	0.717	C	0.001	0.717	C	0.001
26.	Weyburn Ave. and	AM	0.421	A	0.406	A	0.414	A	0.008	0.387	A	-0.019
	Gayley Ave.	PM	0.691	B	0.659	B	0.663	B	0.004	0.633	B	-0.026
27.	Weyburn Ave. and	AM	0.428	A	0.499	A	0.504	A	0.005	0.504	A	0.005
	Westwood Blvd.	PM	0.459	A	0.587	A	0.592	A	0.005	0.592	A	0.005
28.	Weyburn Ave. and	AM	0.327	A	0.383	A	0.392	A	0.009	0.392	A	0.009
	Tiverton Dr.	PM	0.378	A	0.463	A	0.463	A	0.000	0.463	A	0.000
29.	Weyburn Ave. and	AM	0.356	A	0.375	A	0.381	A	0.006	0.381	A	0.006
	Hilgard Ave.	PM	0.525	A	0.641	B	0.643	B	0.002	0.643	B	0.002
30.	Kinross Ave. and	AM	0.407	A	0.639	B	0.645	B	0.006	0.615	B	-0.024
	Westwood Blvd.	PM	0.705	C	1.005	F	1.009	F	0.004	0.979	E	-0.026

Table 29 (cont.)
Critical Movement Analysis Summary
Existing and Future Conditons (Regular Session) -- With 2002 LRDP Plus Mitigation

			Existing		Future Without Project		Future With Project				Future With Project + Mitigation			
No.	Intersection	Peak Hour	CMA	LOS	CMA	LOS	CMA	LOS	Impact		CMA	LOS	Impact	
31.	Lindbrook Dr. and	AM	0.369	A	0.387	A	0.391	A	0.004		0.391	A	0.004	
	Westwood Blvd.	PM	0.431	A	0.451	A	0.452	A	0.001		0.452	A	0.001	
32.	Lindbrook Dr. and	AM	0.599	A	0.653	B	0.660	B	0.007		0.660	B	0.007	
	Tiverton Ave.	PM	0.525	A	0.577	A	0.581	A	0.004		0.581	A	0.004	
33.	Constitution Ave. and	AM	0.415	A	0.360	A	0.361	A	0.001		0.361	A	0.001	
	Sepulveda Blvd.	PM	0.590	A	0.571	A	0.571	A	0.000		0.571	A	0.000	
34.	Wilshire Blvd. and	AM	1.006	F	1.107	F	1.109	F	0.002		1.079	F	-0.028	
	San Vicente Blvd.	PM	1.142	F	1.270	F	1.270	F	0.000		1.240	F	-0.030	
35.	Wilshire Blvd. and	AM	1.056	F	1.162	F	1.165	F	0.003		1.165	F	0.003	
	Sepulveda Blvd.	PM	1.065	F	1.152	F	1.152	F	0.000		1.152	F	0.000	
36.	Wilshire Blvd. and	AM	0.934	E	0.977	E	0.987	E	0.010	*	0.987	E	0.010	*
	Veteran Ave.	PM	1.361	F	1.243	F	1.248	F	0.005		1.248	F	0.005	
37.	Wilshire Blvd. and	AM	0.689	B	0.757	C	0.761	C	0.004		0.731	C	-0.026	
	Gayley Ave.	PM	0.785	C	0.831	D	0.834	D	0.003		0.804	D	-0.027	
38.	Wilshire Blvd. and	AM	0.715	C	0.728	C	0.732	C	0.004		0.732	C	0.004	
	Westwood Blvd.	PM	0.709	C	0.745	C	0.745	C	0.000		0.745	C	0.000	
39.	Wilshire Blvd. and	AM	0.770	C	0.818	D	0.822	D	0.004		0.822	D	0.004	
	Glendon Ave.	PM	0.867	D	0.950	E	0.951	E	0.001		0.951	E	0.001	
40.	Wilshire Blvd. and	AM	0.622	B	0.692	B	0.692	B	0.000		0.679	B	-0.013	
	Malcolm Ave.	PM	0.768	C	0.857	D	0.857	D	0.000		0.807	D	-0.050	
41.	Wilshire Blvd. and	AM	0.814	D	0.950	E	0.952	E	0.002		0.909	E	-0.041	
	Westholme Ave.	PM	0.805	D	0.938	E	0.938	E	0.000		0.917	E	-0.021	
42.	Wilshire Blvd. and	AM	0.757	C	0.882	D	0.884	D	0.002		0.884	D	0.002	
	Warner Ave.	PM	0.635	B	0.757	C	0.757	C	0.000		0.757	C	0.000	
43.	Wilshire Blvd. and	AM	0.846	D	0.961	E	0.963	E	0.002		0.933	E	-0.028	
	Beverly Glen Blvd.	PM	0.849	D	0.981	E	0.983	E	0.002		0.953	E	-0.028	
44.	Ohio Ave. and	AM	0.943	E	0.995	E	0.996	E	0.001		0.996	E	0.001	
	Sawtelle Blvd.	PM	0.871	D	0.919	E	0.919	E	0.000		0.919	E	0.000	
45.	Ohio Ave. and	AM	1.008	F	1.166	F	1.169	F	0.003		1.139	F	-0.027	
	Sepulveda Blvd.	PM	0.949	E	1.032	F	1.033	F	0.001		1.003	F	-0.029	

Table 29 (cont.)
Critical Movement Analysis Summary
Existing and Future Conditons (Regular Session) -- With 2002 LRDP Plus Mitigation

			Existing		Future Without Project		Future With Project			Future With Project + Mitigation		
No.	Intersection	Peak Hour	CMA	LOS	CMA	LOS	CMA	LOS	Impact	CMA	LOS	Impact
46.	Ohio Ave. and Veteran Ave.	AM	0.819	D	0.905	E	0.909	E	0.004	0.882	D	-0.023
		PM	0.989	E	1.069	F	1.071	F	0.002	1.059	F	-0.010
47.	Ohio Ave. and Westwood Blvd.	AM	0.730	C	0.833	D	0.837	D	0.004	0.837	D	0.004
		PM	0.779	C	0.850	D	0.851	D	0.001	0.851	D	0.001
48.	Santa Monica Blvd. and Sawtelle Blvd.	AM	0.874	D	0.922	E	0.924	E	0.002	0.924	E	0.002
		PM	0.836	D	0.882	D	0.882	D	0.000	0.882	D	0.000
49.	Santa Monica Blvd. and San Diego Fwy. (S/B)	AM	0.816	D	0.872	D	0.872	D	0.000	0.872	D	0.000
		PM	0.675	B	0.713	C	0.713	C	0.000	0.713	C	0.000
50.	Santa Monica Blvd. and San Diego Fwy. (N/B)	AM	1.039	F	1.097	F	1.098	F	0.001	1.098	F	0.001
		PM	0.837	D	0.913	E	0.913	E	0.000	0.913	E	0.000
51.	Santa Monica Blvd. and Sepulveda Blvd.	AM	0.970	E	1.115	F	1.116	F	0.001	1.116	F	0.001
		PM	1.016	F	1.181	F	1.181	F	0.000	1.181	F	0.000
52.	Santa Monica Blvd. and Veteran Ave.	AM	0.875	D	0.967	E	0.971	E	0.004	0.941	E	-0.026
		PM	0.914	E	1.055	F	1.056	F	0.001	1.026	F	-0.029
53.	Santa Monica Blvd. and Westwood Blvd.	AM	0.812	D	0.904	E	0.908	E	0.004	0.878	D	-0.026
		PM	0.852	D	0.964	E	0.964	E	0.000	0.934	E	-0.030
54.	Roscomare Rd. and Mulholland Dr.	AM	1.195	F	1.257	F	1.258	F	0.001	1.258	F	0.001
		PM	0.715	C	0.751	C	0.751	C	0.000	0.751	C	0.000
55.	Roscomare Rd. and Stradella Rd./Linda Flora Dr.	AM	0.498	A	0.524	A	0.525	A	0.001	0.525	A	0.001
		PM	0.444	A	0.467	A	0.467	A	0.000	0.467	A	0.000
56.	Chalon Rd. and Bellagio Rd.	AM	0.523	A	0.588	A	0.591	A	0.003	0.591	A	0.003
		PM	0.501	A	0.527	A	0.527	A	0.000	0.527	A	0.000
57.	Beverly Glen Blvd. and Mulholland Dr.	AM	1.026	F	1.079	F	1.081	F	0.002	1.081	F	0.002
		PM	1.048	F	1.102	F	1.102	F	0.000	1.102	F	0.000
58.	Beverly Glen Blvd. and Greendale Dr.	AM	0.812	D	0.853	D	0.858	D	0.005	0.759	C	-0.094
		PM	0.811	D	0.853	D	0.853	D	0.000	0.853	D	0.000

An * indicates a significant impact.

Table 30
Critical Movement Analysis Summary
Existing and Future (Summer) Conditions -- With 2002 LRDP Plus Mitigation

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		Future With Project + Mitigation CMA	Future With Project + Mitigation LOS	Future With Project + Mitigation Impact	
1.	Church Ln./Ovada Pl. and	AM	0.779	C	0.657	B	0.670	B	0.013		0.670	B	0.013	
	Sepulveda Blvd.	PM	0.971	E	1.176	F	1.208	F	0.032	*	1.208	F	0.032	*
2.	San Diego Fwy. S/B On/Off Ramps and	AM	0.973	E	0.642	B	0.658	B	0.016		0.658	B	0.016	
	Church Ln.	PM	1.193	F	0.723	C	0.734	C	0.011		0.734	C	0.011	
3.	Sunset Blvd. and	AM	0.767	C	0.780	C	0.787	C	0.007		0.787	C	0.007	
	Church Ln.	PM	0.927	E	0.966	E	0.980	E	0.014	*	0.980	E	0.014	*
4.	Sunset Blvd. and	AM	0.760	C	0.750	C	0.761	C	0.011		0.761	C	0.011	
	San Diego Fwy. N/B On/Off-Ramps	PM	0.413	A	0.416	A	0.453	A	0.037		0.453	A	0.037	
5.	Sunset Blvd. and	AM	0.812	D	0.829	D	0.882	D	0.053	*	0.882	D	0.053	*
	Veteran Ave.	PM	0.867	D	0.892	D	0.943	E	0.051	*	0.943	E	0.051	*
6.	Sunset Blvd. and	AM	0.939	E	0.885	D	0.939	E	0.054	*	0.939	E	0.054	*
	Bellagio Wy.	PM	1.042	F	1.066	F	1.122	F	0.056	*	1.122	F	0.056	*
7.	Sunset Blvd. and	AM	0.486	A	0.484	A	0.529	A	0.045		0.529	A	0.045	
	Westwood Blvd.	PM	0.565	A	0.578	A	0.615	B	0.037		0.615	B	0.037	
8.	Sunset Blvd. and	AM	0.395	A	0.390	A	0.405	A	0.015		0.405	A	0.015	
	Stone Canyon Rd.	PM	0.582	A	0.591	A	0.618	B	0.027		0.618	B	0.027	
9.	Sunset Blvd. and	AM	0.798	C	0.813	D	0.856	D	0.043	*	0.856	D	0.043	*
	Hilgard Ave./Copa De Oro Rd.	PM	0.808	D	0.855	D	0.898	D	0.043	*	0.898	D	0.043	*
10.	Sunset Blvd. and	AM	0.926	E	0.947	E	0.956	E	0.009		0.956	E	0.009	
	Beverly Glen Blvd.	PM	1.063	F	1.120	F	1.131	F	0.011	*	1.131	F	0.011	*
11.	Sunset Blvd. (East I/S) and	AM	0.885	D	0.904	E	0.925	E	0.021	*	0.925	E	0.021	*
	Beverly Glen Blvd.	PM	1.079	F	1.195	F	1.208	F	0.013	*	1.208	F	0.013	*
12.	San Diego Fwy. N/B Off-Ramp and	AM	0.434	A	0.395	A	0.405	A	0.010		0.405	A	0.010	
	Sepulveda Blvd.	PM	0.509	A	0.437	A	0.438	A	0.001		0.438	A	0.001	
13.	Montana Ave. and	AM	0.668	B	0.777	C	0.804	D	0.027	*	0.774	C	-0.003	
	Sepulveda Blvd.	PM	0.850	D	0.832	D	0.855	D	0.023	*	0.825	D	-0.007	
14.	Montana Ave. and	AM	0.859	D	1.011	F	1.075	F	0.064	*	1.075	F	0.064	*
	Levering Ave.	PM	0.748	C	0.855	D	0.905	E	0.050	*	0.905	E	0.050	*
15.	Montana Ave./Gayley Ave. and	AM	0.778	C	0.855	D	0.933	E	0.078	*	0.903	E	0.048	*
	Veteran Ave.	PM	0.969	E	1.053	F	1.125	F	0.072	*	1.095	F	0.042	*

Table 30 (cont.)
Critical Movement Analysis Summary
Existing and Future (Summer) Conditions -- With 2002 LRDP Plus Mitigation

			Existing		Future Without Project		Future With Project			Future With Project + Mitigation		
No.	Intersection	Peak Hour	CMA	LOS	CMA	LOS	CMA	LOS	Impact	CMA	LOS	Impact
16.	Strathmore Pl. and	AM	0.623	B	0.658	B	0.727	C	0.069 *	0.697	B	0.039
	Gayley Ave.	PM	0.466	A	0.532	A	0.574	A	0.042	0.544	A	0.012
17.	Levering Ave. and	AM	0.489	A	0.537	A	0.548	A	0.011	0.548	A	0.011
	Veteran Ave.	PM	0.633	B	0.741	C	0.749	C	0.008	0.749	C	0.008
18.	Wyton Dr. and	AM	0.330	A	0.363	A	0.390	A	0.027	0.390	A	0.027
	Hilgard Ave.	PM	0.300	A	0.362	A	0.384	A	0.022	0.384	A	0.022
19.	Wyton Dr./Comstock Ave. and	AM	0.609	B	0.648	B	0.658	B	0.010	0.658	B	0.010
	Beverly Glen Blvd.	PM	0.751	C	0.798	C	0.804	D	0.006	0.804	D	0.006
20.	Westholme Ave. and	AM	0.390	A	0.435	A	0.468	A	0.033	0.468	A	0.033
	Hilgard Ave.	PM	0.404	A	0.478	A	0.519	A	0.041	0.519	A	0.041
21.	Manning Ave. and	AM	0.182	A	0.192	A	0.227	A	0.035	0.227	A	0.035
	Hilgard Ave.	PM	0.223	A	0.237	A	0.269	A	0.032	0.269	A	0.032
22.	Le Conte Ave. and	AM	0.567	A	0.615	B	0.643	B	0.028	0.643	B	0.028
	Gayley Ave.	PM	0.519	A	0.553	A	0.584	A	0.031	0.584	A	0.031
23.	Le Conte Ave. and	AM	0.559	A	0.606	B	0.649	B	0.043	0.649	B	0.043
	Westwood Blvd.	PM	0.553	A	0.626	B	0.667	B	0.041	0.667	B	0.041
24.	Le Conte Ave. and	AM	0.311	A	0.367	A	0.400	A	0.033	0.400	A	0.033
	Tiverton Dr.	PM	0.299	A	0.363	A	0.382	A	0.019	0.382	A	0.019
25.	Le Conte Ave. and	AM	0.404	A	0.451	A	0.504	A	0.053	0.504	A	0.053
	Hilgard Ave.	PM	0.439	A	0.508	A	0.541	A	0.033	0.541	A	0.033
26.	Weyburn Ave. and	AM	0.406	A	0.389	A	0.421	A	0.032	0.393	A	0.004
	Gayley Ave.	PM	0.779	C	0.753	C	0.794	C	0.041 *	0.764	C	0.011
27.	Weyburn Ave. and	AM	0.412	A	0.479	A	0.507	A	0.028	0.507	A	0.028
	Westwood Blvd.	PM	0.442	A	0.576	A	0.627	B	0.051	0.627	B	0.051
28.	Weyburn Ave. and	AM	0.282	A	0.330	A	0.368	A	0.038	0.368	A	0.038
	Tiverton Dr.	PM	0.389	A	0.474	A	0.486	A	0.012	0.486	A	0.012
29.	Weyburn Ave. and	AM	0.328	A	0.345	A	0.370	A	0.025	0.370	A	0.025
	Hilgard Ave.	PM	0.493	A	0.603	B	0.640	B	0.037	0.640	B	0.037
30.	Kinross Ave. and	AM	0.429	A	0.666	B	0.698	B	0.032	0.668	B	0.002
	Westwood Blvd.	PM	0.560	A	0.817	D	0.863	D	0.046 *	0.833	D	0.016

Table 30 (cont.)
Critical Movement Analysis Summary
Existing and Future (Summer) Conditions -- With 2002 LRDP Plus Mitigation

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		Future With Project + Mitigation CMA	Future With Project + Mitigation LOS	Future With Project + Mitigation Impact	
31.	Lindbrook Dr. and	AM	0.364	A	0.381	A	0.397	A	0.016		0.397	A	0.016	
	Westwood Blvd.	PM	0.367	A	0.358	A	0.372	A	0.014		0.372	A	0.014	
32.	Lindbrook Dr. and	AM	0.294	A	0.316	A	0.342	A	0.026		0.342	A	0.026	
	Tiverton Ave.	PM	0.311	A	0.337	A	0.360	A	0.023		0.360	A	0.023	
33.	Constitution Ave. and	AM	0.376	A	0.329	A	0.333	A	0.004		0.333	A	0.004	
	Sepulveda Blvd.	PM	0.531	A	0.532	A	0.537	A	0.005		0.537	A	0.005	
34.	Wilshire Blvd. and	AM	0.885	D	0.976	E	0.982	E	0.006		0.952	E	-0.024	
	San Vicente Blvd.	PM	0.918	E	1.024	F	1.035	F	0.011	*	1.005	F	-0.019	
35.	Wilshire Blvd. and	AM	0.973	E	1.070	F	1.102	F	0.032	*	1.102	F	0.032	*
	Sepulveda Blvd.	PM	1.000	E	1.083	F	1.091	F	0.008		1.091	F	0.008	
36.	Wilshire Blvd. and	AM	0.847	D	0.945	E	0.990	E	0.045	*	0.990	E	0.045	*
	Veteran Ave.	PM	1.292	F	1.191	F	1.248	F	0.057	*	1.248	F	0.057	*
37.	Wilshire Blvd. and	AM	0.647	B	0.710	C	0.729	C	0.019		0.699	B	-0.011	
	Gayley Ave.	PM	0.742	C	0.781	C	0.814	D	0.033	*	0.784	C	0.003	
38.	Wilshire Blvd. and	AM	0.699	B	0.725	C	0.741	C	0.016		0.741	C	0.016	
	Westwood Blvd.	PM	0.698	B	0.731	C	0.742	C	0.011		0.742	C	0.011	
39.	Wilshire Blvd. and	AM	0.621	B	0.660	B	0.684	B	0.024		0.684	B	0.024	
	Glendon Ave.	PM	0.721	C	0.792	C	0.802	D	0.010		0.802	D	0.010	
40.	Wilshire Blvd. and	AM	0.634	B	0.707	C	0.709	C	0.002		0.688	B	-0.019	
	Malcolm Ave.	PM	0.824	D	0.919	E	0.932	E	0.013	*	0.875	D	-0.044	
41.	Wilshire Blvd. and	AM	0.630	B	0.738	C	0.750	C	0.012		0.717	C	-0.021	
	Westholme Ave.	PM	0.778	C	0.907	E	0.915	E	0.008		0.843	D	-0.064	
42.	Wilshire Blvd. and	AM	0.757	C	0.882	D	0.893	D	0.011		0.893	D	0.011	
	Warner Ave.	PM	0.635	B	0.757	C	0.772	C	0.015		0.772	C	0.015	
43.	Wilshire Blvd. and	AM	0.703	C	0.799	C	0.811	D	0.012		0.781	C	-0.018	
	Beverly Glen Blvd.	PM	0.818	D	0.945	E	0.961	E	0.016	*	0.931	E	-0.014	
44.	Ohio Ave. and	AM	0.861	D	0.909	E	0.916	E	0.007		0.916	E	0.007	
	Sawtelle Blvd.	PM	0.875	D	0.923	E	0.926	E	0.003		0.926	E	0.003	
45.	Ohio Ave. and	AM	0.815	D	0.945	E	0.959	E	0.014	*	0.929	E	-0.016	
	Sepulveda Blvd.	PM	0.965	E	1.051	F	1.059	F	0.008		1.029	F	-0.022	

Table 30 (cont.)
Critical Movement Analysis Summary
Existing and Future (Summer) Conditions -- With 2002 LRDP Plus Mitigation

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	Future With Project + Mitigation CMA	Future With Project + Mitigation LOS	Future With Project + Mitigation Impact
46.	Ohio Ave. and	AM	0.687	B	0.761	C	0.767	C	0.006	0.755	C	-0.006
	Veteran Ave.	PM	0.890	D	0.964	E	0.989	E	0.025 *	0.971	E	0.007
47.	Ohio Ave. and	AM	0.561	A	0.643	B	0.658	B	0.015	0.658	B	0.015
	Westwood Blvd.	PM	0.641	B	0.699	B	0.713	C	0.014	0.713	C	0.014
48.	Santa Monica Blvd. and	AM	0.838	D	0.884	D	0.891	D	0.007	0.891	D	0.007
	Sawtelle Blvd.	PM	0.886	D	0.936	E	0.942	E	0.006	0.942	E	0.006
49.	Santa Monica Blvd. and	AM	0.870	D	0.959	E	0.959	E	0.000	0.959	E	0.000
	San Diego Fwy. (S/B)	PM	0.667	B	0.705	C	0.706	C	0.001	0.706	C	0.001
50.	Santa Monica Blvd. and	AM	0.783	C	0.826	D	0.834	D	0.008	0.834	D	0.008
	San Diego Fwy. (N/B)	PM	0.737	C	0.805	D	0.809	D	0.004	0.809	D	0.004
51.	Santa Monica Blvd. and	AM	0.901	E	1.035	F	1.037	F	0.002	1.037	F	0.002
	Sepulveda Blvd.	PM	0.871	D	1.014	F	1.015	F	0.001	1.015	F	0.001
52.	Santa Monica Blvd. and	AM	0.729	C	0.806	D	0.817	D	0.011	0.787	C	-0.019
	Veteran Ave.	PM	0.873	D	1.009	F	1.026	F	0.017 *	0.996	E	-0.013
53.	Santa Monica Blvd. and	AM	0.771	C	0.860	D	0.876	D	0.016	0.846	D	-0.014
	Westwood Blvd.	PM	0.841	D	0.950	E	0.961	E	0.011 *	0.931	E	-0.019
54.	Roscomare Rd. and	AM	1.195	F	1.257	F	1.258	F	0.001	1.258	F	0.001
	Mulholland Dr.	PM	0.715	C	0.751	C	0.752	C	0.001	0.752	C	0.001
55.	Roscomare Rd. and	AM	0.498	A	0.524	A	0.526	A	0.002	0.526	A	0.002
	Stradella Rd./Linda Flora Dr.	PM	0.444	A	0.467	A	0.467	A	0.000	0.467	A	0.000
56.	Chalon Rd. and	AM	0.523	A	0.588	A	0.600	A	0.012	0.600	A	0.012
	Bellagio Rd.	PM	0.501	A	0.527	A	0.543	A	0.016	0.543	A	0.016
57.	Beverly Glen Blvd. and	AM	1.026	F	1.079	F	1.090	F	0.011 *	1.090	F	0.011 *
	Mulholland Dr.	PM	1.048	F	1.102	F	1.107	F	0.005	1.107	F	0.005
58.	Beverly Glen Blvd. and	AM	0.812	D	0.853	D	0.877	D	0.024 *	0.778	C	-0.075
	Greendale Dr.	PM	0.811	D	0.853	D	0.858	D	0.005	0.858	D	0.005

An * indicates a significant impact.

APPENDIX A

DESCRIPTION OF BUS LINES

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DESCRIPTION OF BUS LINES

Detailed below are the 19 public bus lines that collectively provide 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. These 19 bus lines are operated by the following six outside public transit operators: Santa Monica Municipal Bus Lines (SMMBL), Culver CityBus (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).

- o Line 1 (SMMBL) operates between Venice Beach and the UCLA Bus Terminal on Hilgard Avenue, traveling primarily by way of Westwood Boulevard, Santa Monica Boulevard, Ocean Avenue and Main Street. In route, this line also serves Westwood Village, St. John's Hospital and the Santa Monica Place & 3rd Street Promenade. In the vicinity of the UCLA campus, Line 1 travels via Westwood Boulevard and Hilgard Avenue, stopping within walking distance of campus. Weekday access to the campus is provided by Line 1 between 6:00 AM and midnight. Ten-minute headways prevail throughout most of the day and decrease to 30-minutes after 7:00 PM. Access to the campus is also provided on Saturdays, Sundays and holidays on headways that range from 15- to 30-minutes.

- o Line 2 (SMMBL) provides weekday service between the UCLA Bus Terminal and Venice High School and, in route, also accesses Westwood Village, the VA Hospital and the Santa Monica Place & 3rd Street Promenade. Line 2 generally travels via Wilshire Boulevard, 4th Street, Pacific Avenue and California Avenue. Line 2 provides weekday access to campus from 7:20 AM to 10:00 PM, and offers 15-

minute headways during peak travel periods, 20-minute headways throughout the remainder of the day, and 30-minute headways after 7:30 PM. Line 2 also accesses the campus on weekends and holidays with 20-minute headways in each travel direction.

- Line 3 (SMMBL) connects UCLA and the UCLA Bus Terminal with the El Segundo Green Line station, traveling primarily by way of Montana Avenue, Lincoln Boulevard, and Manchester Avenue. In route, Line 3 also accesses Westwood Village, Brentwood, Downtown Santa Monica and Marina Del Rey. Weekday and Saturday access to campus via Line 3 occurs between 7:00 AM and 10:00 PM. Headways in each travel direction are generally 20-minutes. Line 3 operates on Sunday but does not access the UCLA Bus Terminal.

- Line 8 (SMMBL) operates between the UCLA Bus Terminal and Downtown Santa Monica primarily by way of Westwood Boulevard, National Boulevard, Ocean Park Boulevard, and Main Street. Major destinations within close proximity include the Westside Pavilion, the Santa Monica Municipal Airport, the Ocean Park Industrial Park and the Santa Monica Place & 3rd Street Promenade. Line 8 provides weekday access to campus from 6:30 AM to approximately 11:15 PM. Headways are generally 15-minutes per direction until 6:30 PM, when service frequency decreases to every 30-minutes. Line 8 also serves UCLA on weekends and holidays, with 30-minute headways in each travel direction.

- Line 12 (SMMBL) provides weekday service between the UCLA Bus Terminal and the Pico/Robertson intersection. Line 12 also extends beyond the Pico/Robertson intersection to serve the Rimpau Transit Center during peak weekday travel periods. Near the UCLA campus, this line travels via Westwood Boulevard and stops within short walking distance of the campus. Beyond UCLA, Line 12 travels primarily by way of Westwood Boulevard, Sepulveda Boulevard, Palms Boulevard, Robertson Boulevard and Pico Boulevard. Direct access is provided to Westwood Village, Westside Pavilion, Mar Vista Park and Hamilton High School. In the study area, weekday service is provided from 7:00 AM to 10:00 PM with approximately 20-minute headways in each direction. Line 12 operates on weekends and holidays from 7:15 AM to 6:15 PM with 30-minute headways.

- UCLA Commuter (SMMBL) provides peak period service between National Place and Overland Avenue, and Ackerman Plaza on the UCLA campus. It provides connections with other Santa Monica Municipal Bus Lines routes, as well as Culver City Bus and MTA routes. In the study area, it operates along Westwood Boulevard/Plaza. It operates 10 northbound runs in the morning on a 14 to 22 minute headway. During the evening, this route provides 11 southbound runs on an 18 to 20 minute headway. This line does not operate during the mid-day, evening, weekends or holidays.

- Line 431 (LADOT) provides peak period express bus service between Westwood and Downtown Los Angeles, traveling via the Santa Monica (I-10) Freeway between the two destinations. In the study area, Line 431 travels along Gayley Avenue and stops within close walking distance of the campus. This line allows Westwood passengers to board only in the morning and alight only in the evening. Four eastbound runs to Downtown Los Angeles are provided in the morning, and four westbound runs to Westwood are provided in the afternoon. The morning trips serve the project area between 6:20 AM and 7:50 AM on 30-minute headways, while the afternoon trips serve the project vicinity from 5:30 PM to 6:50 PM on 25- to 30-minute headways. This peak period express bus service does not operate on weekends or holidays.

- Line 534 (LADOT) provides peak period express bus service between Downtown Los Angeles and West Los Angeles, with service to Westwood. Line 534 accesses the UCLA campus at Wilshire Boulevard and Glendon Avenue, as well as Wilshire Boulevard and Westwood Boulevard. These stops are walking distance to campus. The morning trips serve campus with 4 runs between 7:35 AM and 9:35 AM, with headways ranging from 30-50 minutes. The afternoon, eastbound trips depart Westwood 4 times between 3:20 PM and 5:29 PM with headways ranging from 30-52 minutes. This peak period express bus service does not operate on weekends or holidays.

- Line 573 (LADOT) provides peak period express bus service between Encino/Granada Hills and Westwood/Century City. Service also occasionally extends to Santa Clarita. In the vicinity of project, Line 573 travels along Gayley Avenue and stops within close walking distance of the project site. There are generally no boarding/alighting restrictions placed upon passengers, with the exception of passengers traveling between Westwood and Century City who may not use this line as a "local" service. Southbound runs to Westwood/Century City access the project area in the morning between 6:30 AM and 10:30 AM, and in the evening at approximately 5:30 PM and 6:15 PM. Northbound service to Encino/Granada Hills accesses the project area between 7:15 AM and 10:15 AM, offers a 12:20 PM bus, and serves the area again between 2:20 PM and 7:00 PM. Morning and evening headways generally range from 15- to 20-minutes in the peak direction of travel (southbound in AM and northbound in PM) and transitions to 30- to 45-minute headways during off-peak hours. This express bus service does not operate on weekends or holidays.

- o Line 6 (CCB) operates between the UCLA Bus Terminal and the LAX Transit Center and, in route, also accesses Westwood Village and the Fox Hills Mall. Line 6 generally travels via Sepulveda Boulevard. In the campus vicinity, it also travels along Le Conte Avenue and Westwood Boulevard and stops within walking distance of the project site. Line 6 provides weekday access to the campus from about 5:45 AM to 11:45 PM, and offers 12-minute headways during peak travel periods, 20-minute headways midday, and 60-minute headways at night. Line 6 also accesses the campus area on Saturdays, Sundays and holidays with 30- to 40-minute headways in each travel direction.

- o Line 786 (AVTA) provides peak period commuter service between Lancaster (Lancaster Transit Center) and West LA (Santa Monica Boulevard and Fairfax Avenue) with a stop in Westwood. The Westwood stop is at the intersection of Wilshire Boulevard and Westwood Boulevard which is within walking distance from the UCLA campus or UCLA shuttle system stops. Line 786 makes two morning (westbound) runs, arriving in Westwood at 7:26 AM and 7:56 AM. The evening routes to Lancaster (eastbound) depart from Westwood at 5:05 PM and 5:35 PM. Line 786 does not provide service for weekends nor holidays.

- o Lines 792 and 797 (SCT) provide peak period express service between Santa Clarita (Santa Clarita Metrolink Station) and Century City, with two stops in Westwood. In the study area, service is provided at the intersections of Gayley Avenue and Strathmore Drive and further south of the campus at Wilshire Boulevard and Glendon Avenue which is within walking distance from the UCLA campus or UCLA shuttle system stops. In the morning peak period, Line 797 provides service between 6:45 AM and 8:17 AM, with approximately 30- to 60-minute headways. In the evening, it operates from 4:56 PM to 6:51 PM, with headways ranging from 30-

55 minutes. Line 792 provides the reverse commute with morning departures from Westwood between 7:13 AM and 8:46 AM and evening arrivals between 4:07 PM to 6:12 PM. Both lines do not operate on weekends or holidays.

- Lines 2 and 302 (MTA) provide weekday service between Pacific Palisades and Downtown Los Angeles and, in route, also access UCLA. These lines generally travel along Sunset Boulevard until they reach Downtown Los Angeles, where they traverse Broadway and Hill Street. In the vicinity of the campus, Lines 2 and 302 travel by way of Gayley, Le Conte and Hilgard Avenues, and stop within close walking distance of the project site. Together, these lines provide weekday access to the project area from 6:00 AM to 1:00 AM, and generally offer at least 10-minute headways throughout most of the AM and PM peak travel periods, and 20- to 40-minute headways the remainder of the time. Although Line 302 operates weekdays only, MTA Line 2 accesses the project area on weekends and holidays with 12- to 24-minute headways in each travel direction.

- Lines 20 and 21 (MTA) operate between Santa Monica and Downtown Los Angeles and, in route, accesses Westwood Village, Beverly Hills, LA County Art Museum, La Brea Tar Pits, several Metro Red Line Stations, Southwestern University and MacArthur Park. These lines generally travel by way of Westwood Boulevard, Wilshire Boulevard and 7th Street. In the study area, Lines 20 and 21 traverses along Hilgard Avenue, Le Conte Avenue, Westwood Boulevard, and Wilshire Boulevard and stops within close walking distance of the project site. Line 20 provides weekday service from 5:30 AM to 4:15 AM with 10- to 20-minute headways per direction. Line 21 operates during the weekdays between 6:30 AM and 8:00 PM with 25- to 30-minute headways per direction, but become more frequent (i.e., every 10- to 20-minutes) in the westbound direction for the morning peak hour and in the eastbound direction for the afternoon peak travel period. Service is also provided on weekends and holidays via Line 20 with 10- to 35-minute headways throughout most of the day. Line 21 does not operate on Sundays or holidays. A variation of this route operates as Line 22 and serves San Vicente Boulevard, but does not serve the UCLA Transit Center.

- Line 429 (MTA) provides peak period express bus service between Westwood and Hollywood, traveling primarily by way of Sunset Boulevard and Hollywood Boulevard. Near the study area, this line travels along Westwood Boulevard, Le Conte Avenue, and Hilgard Avenue. Line 429 provides four runs each direction on weekday mornings, and five eastbound and four westbound runs on weekday afternoons. Morning eastbound service accesses the campus area between 5:50 AM and 8:15 AM on 55-minute headways, while morning westbound runs operate on 35- to 55-minute headways between 7:15 AM and 10:00 AM. On weekday afternoons, eastbound buses access the campus area between 3:30 PM and 6:00 PM every 30- to 60-minutes, and the westbound buses serve the area from 5:00 PM to 7:30 PM on 60-minute headways. No service is provided on weekends or holidays.

- Lines 233 and 561 (MTA) generally operate between the community of Westwood and the Sylmar/San Fernando Metrolink Station, with periodic service extensions to the LAX Bus Center on the southern end of the route. Line 561 periodically travels to the community of Lake View Terrace (Line 233) instead of the Metrolink Station, on the northern end of the route. The basic route travels primarily by way of Sunset Boulevard, Sepulveda Boulevard, the I-405 Freeway and Van Nuys Boulevard. Major destinations served include the UCLA community, the Federal Building, the Sherman Oaks Galleria, the Van Nuys Metrolink/Amtrak Station and the Panorama

Mall. When the route extends south to the LAX Transit Center, it also serves the Fox Hills Mall and the Metro Green Line at the Aviation Boulevard/I-105 Station. In the campus vicinity, Line 561 travels by way of Westwood Boulevard, Le Conte Avenue, Hilgard Avenue, and traverses the north portion of campus via Sunset Boulevard. Weekday access to the project area occurs between 5:00 AM and 12:30 AM. Headways in each direction generally range from 10 to 20 minutes during peak travel hours and 30 minutes for the remainder of the day, except after 9:00 PM when frequencies decrease to hourly service. Weekday service extensions to the LAX Transit Center generally occur during the same hours, but on 60-minute headways. Line 561 also operates on weekends and holidays with similar service characteristics to those described for weekdays, but with longer headways (i.e., 30-minutes per direction in the project vicinity). Line 233 operates as a variation to Line 561 and serves the UCLA Transit Center only in the southbound direction.

o Line 576 (MTA) provides peak period express bus service between Pacific Palisades and south Los Angeles and, in route, also serves the communities of Brentwood, Westwood, Beverly Hills and Vernon. This line generally travels by way of Sunset Boulevard, La Cienega Boulevard, the Santa Monica (I-10) Freeway, Western Avenue and Vernon Avenue. In the project vicinity, Line 576 travels along Gayley, Le Conte, and Hilgard Avenues and stops within short walking distance of the campus. Line 576 provides five westbound trips during the morning peak period and seven eastbound trips during the afternoon peak period. The morning westbound buses access the project area between 6:50 AM and 9:15 AM on approximately 35-minute headways, and the afternoon eastbound buses serve the project vicinity between 3:00 PM and 5:50 PM on 20- to 40- minute headways. This express bus service operates on weekdays only.

- <u>Line 720 (MTA)</u> provides rapid bus service between Santa Monica and Montebello (Montebello Metrolink Station), and, in route, also serves Brentwood, Westwood, Koreatown, Downtown LA and East LA. In the vicinity of the campus, Line 720 stops at Wilshire Boulevard and Westwood Boulevard. This route generally runs along Wilshire Boulevard, but travels along 6th Street in Downtown Los Angeles and Whittier Boulevard east of Downtown. Westbound morning buses access Westwood at approximately 5:00 AM and continually serve on 2-12 minute headways until approximately 12:45 PM. Service is provided in the afternoon until 6:30 PM with approximate 10 minute headways in both directions. Weekend service operates on 10-15 minute headways.

APPENDIX B

HISTORICAL CORDON COUNT VOLUMES

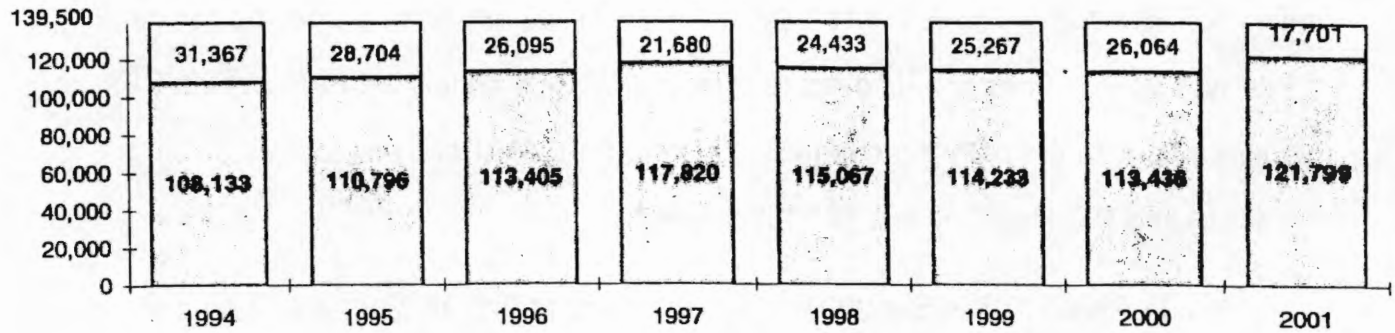
APPENDIX B
HISTORICAL CORDON COUNT VOLUMES

A "cordon count" of all vehicles entering and exiting the UCLA campus has been conducted annually. In summary, the Cordon Count study complies with the Traffic Mitigation Monitoring Agreement (TMMA) and UCLA's Long Range Development Plan (Existing LRDP). The study is used to compare UCLA's annual average weekday Fall vehicle trips with the daily trip cap (139,500 vehicles), AM Peak trip cap (24,320 vehicles) and PM Peak trip cap (37,122 vehicles).

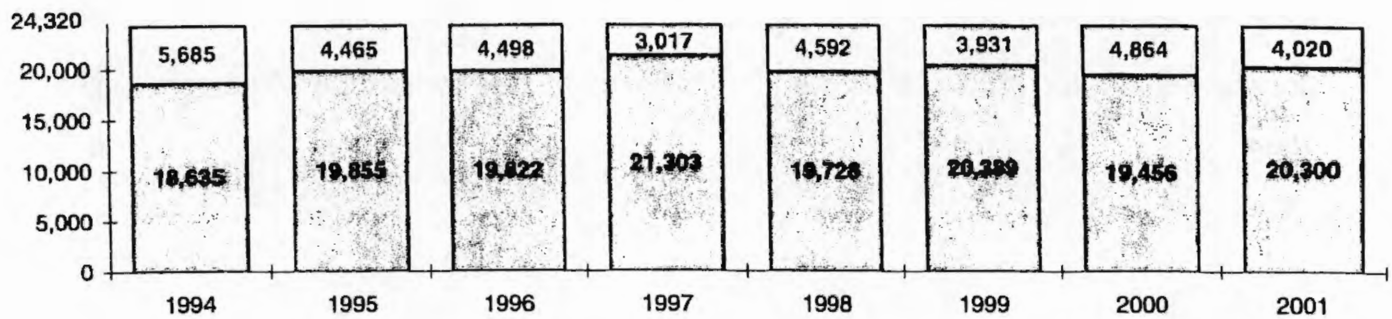
As shown in Graph 1 (Source: 2001 UCLA Trip Cap, March 18, 2002), UCLA has consistently remained below the trip cap. The historical cordon counts show that the campus was below the trip cap by 12.7 percent, 16.5 percent and 15.9 percent for the daily, AM Peak and PM Peak periods, respectively. In addition, while campus trips have generally fluctuated from year to year, they have increased by less than 8 percent since 1996.

Graph 1
TOTAL DAILY AND PEAK PERIOD VEHICLE TRIPS
Historical Comparison

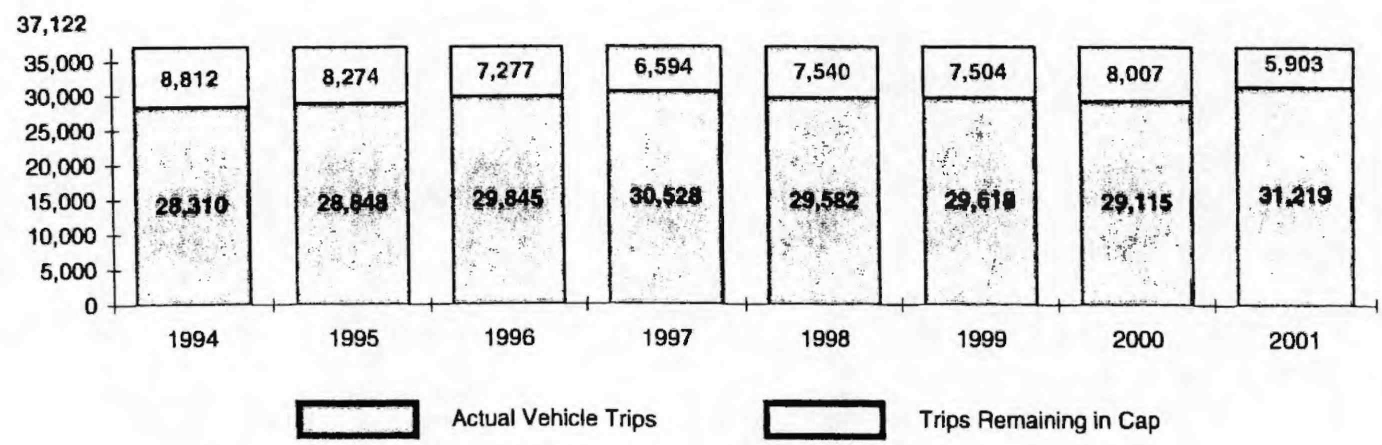
TOTAL DAILY VEHICLE TRIPS



AM PEAK PERIOD TRIPS
7:00 - 9:30 AM



PM PEAK PERIOD TRIPS
3:00 - 6:30 PM



APPENDIX C

COMPUTER MODEL SUMMARY

APPENDIX C
COMPUTER MODEL SUMMARY

Introduction

This report documents the procedures and results of the computerized transportation model developed to forecast traffic flows in and around the University of California at Los Angeles ("UCLA") campus in the year 2011. The model was developed as part of the ongoing Long Range Development Plan and was conducted to assist in the decision-makers in analyzing potential near- and long-term transportation impacts of the plan. However, not only does this report present information to more effectively make current decisions, the report documents the model, itself as an important tool which can be utilized to help monitor the growth within the University and surrounding area.

The transportation model being used is based on a computer model developed by the Southern California Association of Governments ("SCAG"). The SCAG model incorporates a regional land use database that was developed in close consultation with the local jurisdictions. The highway network was also developed based on input from transportation agencies throughout the region. The parameters within the model (trip generation rates, roadway capacity, etc.) have been calibrated to closely replicate the transportation patterns unique to the Southern California region.

The modeling software being utilized to edit networks and assign trips is EMME/2. This software is in use for other subregion studies in the Los Angeles area and for detailed transportation studies throughout the United States. Also utilized are a series of micro-computer programs specially developed by Crain & Associates to emulate the SCAG procedures.

Zone System Development

The transportation planning zone system used in this study was based on the socio-economic zones utilized by SCAG. However, there are several noteworthy variations, most of which have to do with the number of zones used. For this study it was desirable to have more detail within the campus, Westwood Village and surrounding areas and less detail in the more distant areas of Orange, San Bernardino, Riverside and Ventura Counties. To accomplish this, it was necessary to aggregate some of the outlying analysis zones into larger regional subareas. The aggregated model still represents all of the traffic volumes and distributions, but only utilizes one centroid per regional subarea. These aggregated zones are far enough from UCLA that precise individual zone connections are not necessary for accurate street and highway vehicle assignments in and near the campus. Every effort was made to ensure that area zones with like qualities and general distribution patterns were combined. Areas aggregated by this method were San Bernardino, Riverside, Orange, Ventura and distant parts of Los Angeles Counties. For the area surrounding the UCLA study area, the analysis zones used by SCAG in the regional study was further disaggregated into smaller zones.

Highway Network Update

The SCAG model highway network includes all freeways and most of the significant primary and secondary streets in Los Angeles County. However, in order to more precisely represent traffic patterns within the UCLA study area, several modifications to the modeling network was made as described below.

- Additional links were added to represent numerous roadways in and around the project site. The number of lanes on the links in the study area were also updated to mirror current conditions.

- o New centroids were also added to the network to represent zones that were disaggregated from the TAZ and Census Tract levels. Centroid connectors were added and also adjusted to more accurately reflect driveway and minor street locations.
- o In the study area, the original two-way links representing the freeways were replaced by one-way links, whereby each freeway segment was replicated by an individual link. Likewise, the two-way links representing the freeway ramps were replaced by individual one-way links, one link for each individual ramp.
- o All of the preceding modifications were made to the future 2011 model network as well as the existing 2001 model network. In addition, those improvements considered "reasonably assured" were also represented in the future 2011 model conditions.

Development of Demographics

As with other sections of the model, the demographic information used was based on SCAG data produced for the regional study. Demographic information for areas outside the University study area for the year 2001 and 2011 model data sets were obtained by linear interpolation between SCAG data sets for 1997 and 2015.

Within the study area, more detail was needed in the demographic data used for trip generation purposes. Year 2000 and 2015 land use data at the census tract level was used instead of land use data at the CTP model TAZ level. The land use data at the census tract level was further divided into smaller zones or sub-zones. Disaggregation was conducted by comparing the size of each of the smaller zones devoted to each use to that of the overall zone. The demographic data within the study area is also increased, if necessary, to account for all identified proposed ("related") projects from

Table 14. The growth from the related projects is compared to the difference between the data for years 2011 and 2001. The related projects growth would be added to the year 2001 data if its growth is greater than the growth between the 2011 and 2001 data.

APPENDIX D

CRITICAL MOVEMENT ANALYSIS (CMA) WORKSHEETS

(Under Separate Cover)

Appendix 5 Floral and Faunal Lists

TABLE A5-1A NATIVE PLANT SPECIES OBSERVED AND/OR EXPECTED TO OCCUR WITHIN THE NORTHWEST ZONE AND/OR STONE CANYON CREEK

Scientific Name	Common Name
CYPERACEAE	
Cyperus eragrostis	Tall Flat-sedge ✓
IRIDACEAE	
Sisyrinchium bellum	Blue-eyed Grass ◆✓
LILIACEAE	
Yucca whipplei	Our Lord's Candle ◆
POACEAE	
Distichlis spicata	Salt Grass ✓
Leymus condensatus	Giant Rye Grass ◆✓
Festuca megulura	Foxtail Fescue ◆
Melica imperfecta	California Melic ✓
Nassella lepida	Foothill Needlegrass ◆✓
Nassella pulchra	Purple Needlgrass ◆
ACERACEAE	
Acer macrophyllum	Big-leaf Maple ✓
ANACARDIACEAE	
Malosma laurina	Laurel Sumac ◆✓
Toxicodendron diversilobum	Poison Oak ◆
ASTERACEAE	
Artemisa californica	Costal Sagebrush ◆✓
Artemisia dracunculus	Wild Tarragon ◆
Baccharis pilularis	Coyote Brush ◆✓
Baccharis glutinosa	Mule Fat ◆
Encelia californica	Bush Sunflower ◆
Gnaphalium bicolor	Two-tone Everlasting ◆
Gnaphalium californicum	Green Everlasting ◆
Hazardia squarrosa	Saw-toothed Goldenbush ◆
Hazardia stenolepis	Common Hazardia ◆
Isocoma sp.	Coastal Isocoma ◆
Stephanomeria sp.	Stephanomeria ◆
CACTACEAE	
Opuntia littoralis	Coastal Prickly Pear ◆
Opuntia occidentalis	Western Prickly Pear ◆✓
CAPRIFOLIACEAE	
Sambucus mexicana	Blue Elderberry ◆✓
CONVOLVULACEAE	
Calystegia sp.	Morning Glory ◆✓
CUCURBITACEAE	
Marah macrocarpus	Wild Cucumber ◆

TABLE A5-1A NATIVE PLANT SPECIES OBSERVED AND/OR EXPECTED TO OCCUR WITHIN THE NORTHWEST ZONE AND/OR STONE CANYON CREEK

Scientific Name	Common Name
FABACEAE	
Astragulus sp.	Milkvetch ◆
Astragalus gambelianus	Dwarf Locoweed ◆
Lotus scoparius	Deer Weed ◆
Lupinus spp.	Lupines ◆
Trifolium spp.	Clovers ◆✓
FAGACEAE	
Quercus agrifolia	Coast Live Oak ◆✓
Quercus chrysolepis	Canyon Live Oak ✓
JUGLANDACEAE	
Juglans californica	California Black Walnut ◆✓
LAMIACEAE	
Salvia mellifera	Black Sage ◆✓
Trichostema lanatum	Wooly Blue Curls ◆
PLATANACEAE	
Platanus racemosa	California Sycamore ◆✓
POLYGONACEAE	
Eriogonum sp.	Buckwheat✓
PORTULACACEAE	
Claytonia perfoliata	Miners Lettuce ◆
ROSACEAE	
Cercocarpus betuloides	Mountain Mahogany ◆
Heteromeles arbutifolia	Toyon ◆✓
Prunus ilicifolia	Holly-leaved Cherry ◆
SALICACEAE	
Salix laevigata	Red Willow ◆✓
SAXIFRAGACEAE	
Ribes speciosum	Fuchsia-flowered Gooseberry ◆
SCROPHULARIACEAE	
Keckiella ternata	Wand Penstemon ◆
Mimulus longiflorus	Bush Monkey Flower ◆
Mimulus aurantiacus	Sticky Monkey Flower ✓
SOLANACEAE	
Datura sp.	Jimson Weed ◆
Solanum douglasii	Douglas Nightshade ◆✓
Solanum xantii	Purple Nightshade ◆
VERBANACEAE	
Verbena lasiostachys	Vervain ◆
VISCACEAE	
Phoradendron macrophyllum	Big-leaf Mistletoe ✓

Source: ◆ Longcore, Travis, 1997. Biological Assessment, Coastal Sage Scrub at University of California, Los Angeles. Surveys performed Winter 1996
✓ EIP field surveys performed 5 December 2001
The Northwest Campus Development Phase II Supplemental Environmental Impact Report did not address plant species.

TABLE A5-1B NON-NATIVE PLANT SPECIES OBSERVED AND/OR EXPECTED TO OCCUR WITHIN THE NORTHWEST ZONE AND/OR STONE CANYON CREEK

Scientific Name	Common Name
CUPRESSACEAE	
Cupressus sp.	Cypress ◆✓
Juniperus sp	Juniper ◆✓
Juniperus chinensis	Chinese Juniper ◆
PINACEAE	
Cedrus deodara	Deodar Cedar ◆✓
Pinus canariensis	Canary Island Pine ◆✓
Pinus halepensis	Aleppo Pine ◆✓
CYPERACEAE	
Cyperus alternifolius	Umbrella Plant ◆✓
TAXODIACEAE‡	
Sequoia sempervirens	Coast Redwood ◆✓
Sequoia giganteum	Giant Sequoia ✓
POACEAE	
Avena spp.	Wild Oats ◆✓
Bromus	Brome grass ◆✓
Bromus diandrus	Ripgut Grass ◆✓
Bromus tectorum	Cheat Grass ✓
Bromus sp.	Hungarian Brome ◆
Bromus sp.	Spanish Brome ◆
Festuca sp.	Fescue ◆✓
Cortaderia sp.	Pampas Grass ◆✓
Digitaria sanguinalis	Hairy Crab Grass ◆✓
Ehrharta calycina	Veldt Grass ◆✓
Lolium multiflorum	Italian Rye Grass ◆✓
Phalaris aquatica	Harding Grass ◆✓
Piptatherum miliaceum	Smilo Grass ◆✓
AIZOACACEAE	
Carpobrotus edulis	Hottentot Fig (Iceplant) ◆✓
ANACARDIACEAE	
Schinus terebinthifolius	Brazilian Pepper Tree ◆✓
Rhus sp.	Rhus ✓
ANNONACEAE	
Annona cherimoya	Cherimoya ◆
APIACEAE	
Foeniculum vulgare	Sweet Fennel ◆✓
APOCYNACEAE	
Nerium oleander	Oleander ◆
Vinca minor	Periwinkle ◆✓
ARACEAE	
Philodendron bipinnatifidum	Philodendron ✓

TABLE A5-1B NON-NATIVE PLANT SPECIES OBSERVED AND/OR EXPECTED TO OCCUR WITHIN THE NORTHWEST ZONE AND/OR STONE CANYON CREEK

Scientific Name	Common Name
ARALIACEAE	
Hedera canariensis	Algerian Ivy ◆✓
Hedera helix	English Ivy ◆✓
Aralia chinensis	Chinese Angelica ✓
ARECACEAE	
Washingtonia filifera	California Fan Palm ◆✓
ASTERACEAE	
Conyza bonariensis	Little Horseweed ◆✓
Conyza canadensis	Horseweed ◆
Delaria odorata (Senecio mikanoides)	German Ivy ✓
Iva axillaris	Poverty Weed ◆
Picris echioides	Bristly Ox-tongue ✓
Santolina chameacyparissus	Lavender Cotton ◆
Senecio vulgaris	Common Groundsel ◆✓
Sonchus oleraceus	Sow Thistle ◆✓
Taraxacum officinale	Dandelion ◆✓
BRASSICACEAE	
Brassica nigra	Black Mustard ◆✓
Raphanus sativus	Radish ✓
CHENOPODIACEAE	
Atriplex semibaccata	Australian Saltbush ◆
Salsola tragus	Russian Thistle ◆✓
CISTACEAE	
Cistus sp.	Rock-rose ◆✓
Cistus incanus	Rock-rose ◆✓
CONVOLVULACEAE	
Convolvulus arvensis	Bindweed ◆✓
CRASSULACEAE	
Crassula ovata	Jade Plant ◆
EUPHORBIACEAE	
Ricinus communis	Castor Bean ◆✓
ELAGNACEAE	
Elaeagnus multiflora	Cherry Elaeagnus ✓
FABACEAE	
Acacia spp	Acacias ◆✓
Acacia baileyana	Bailey Acacia ◆✓
Acacia melanoxylon	Black Acacia ✓
Albizia distachaya	Plume Albizia ◆
Albizia julibrissin	Silk Tree ◆
Cassia corymbosa	Flowery Senna ◆
Ceratonia siliqua	St. John's Bread, Carob ◆
Medicago lupulina	Black Medic ✓

TABLE A5-1B NON-NATIVE PLANT SPECIES OBSERVED AND/OR EXPECTED TO OCCUR WITHIN THE NORTHWEST ZONE AND/OR STONE CANYON CREEK

Scientific Name	Common Name
FAGACEAE	
Lithocarpus densiflora	Tanbark Oak ◆
Quercus ilex	Holly Oak ◆✓
Quercus engelmannii	Engelman Oak ◆
Quercus suber	Cork Oak ◆
Quercus wislizenii	Interior Live Oak ◆✓
FLACOURTIACEAE	
Xylosma congestum	Xylosma ◆
GERANIACEAE	
Erodium spp.	Filarees ◆✓
Geranium molle	Dove's- Foot Crane's-Bill ✓
HAMAMELIDACEAE	
Liquidambar stryaciflua	American Sweet Gum ✓
LAMIACEAE	
Marrubium vulgare	Horehound ◆
Rosemarinus officinalis	Rosemary ◆
Teucrium fruticans	Germander ◆
MALVACEAE	
Malacothamnus fasciculatus	Bush Mallow ◆
Malva parviflora	Cheeseweed ◆✓
MORACEAE	
Ficus pumila	Creeping Fig ◆
Ficus rubiginosa	Rusty-leaf Fig
MYOPORACEAE	
Myoporum sp.	Myoporum ◆✓
MENISPERMACEAE	
Cocculus laurifolius	Cocculus
MYRTACEAE	
Eucalyptus spp.	Eucalyptus ◆✓
Callistemon citrinus	Lemon Bottlebrush ◆
Syzygium paniculatum	Australian Bush Cherry ◆✓
NYCTAGINACEAE	
Bougainvillea sp.	Bougainvillea ✓
OLEACEAE	
Forsythia intermedia	Golden Bells ✓
Olea europea	Olive Tree ◆
ONAGRACEAE	
Ludwigia sp.	Water Primrose ◆
OXALIDACEAE	
Oxalis sp.	Wood Sorrel ◆✓
PASSIFLORACEAE	
Passiflora sp.	Passion Vine ◆✓

TABLE A5-1B NON-NATIVE PLANT SPECIES OBSERVED AND/OR EXPECTED TO OCCUR WITHIN THE NORTHWEST ZONE AND/OR STONE CANYON CREEK

Scientific Name	Common Name
PITTOSPORACEAE	
Pittosporum undulatum	Victorian Box Tree ◆✓
Pittosporum tobira	Japanese Pittosporum ✓
PLANTAGINACEAE	
Plantago lanceolata	English Plantain ◆
Plantago major	Common Plantain ✓
PLUMBAGINACEAE	
Plumbago auriculata	Cape Plumbago ◆✓
POLYGONACEAE	
Rumex crispus	Curly Dock ◆✓
PRIMULACEAE	
Anagallis arvensis	Scarlet Pimpernel ◆✓
RHAMNACEAE	
Ceanothus thrysiflorus	Blue-blossom ◆
Rhamnus sp.	Coffeeberry ◆
ROSACEAE	
Cotoneaster parneyi	Red Clusterberry ◆✓
Duchesnea indica	Indian Strawberry ✓
Eriobotyra japonica	Loquat ◆✓
Prunus trilobata	Double-flowering plum shrub ◆
Prunus caroliniana	American Cherry Laurel ◆
Prunus persica	Peach ✓
SOLANACEAE	
Nicotiana glauca	Tree Tobacco ◆✓
TROPAEOLACEAE	
Tropaeolum majus	Garden Nasturtium ✓
ULMACEAE	
Ulmus parvifolia	Chinese Elm ◆✓
VERBANACEAE	
Lantana montevidensis	Creeping Lantana ◆✓
VITACEAE‡	
Vitis girdiana	Desert Wild Grape ◆✓

‡ Native to Northern California

Source: ◆ Longcore, Travis, *et al.*, 1997; Biological Assessment, Coastal Sage Scrub at University of California, Los Angeles; surveys performed winter 1996

✓ EIP field surveys performed 5 December 2001 and 22 April 2002

The Northwest Campus Development Phase II Supplemental Environmental Impact Report did not address plant species.

TABLE A5-2 WILDLIFE SPECIES OBSERVED AND/OR EXPECTED TO OCCUR ON THE UCLA CAMPUS[1,2]

Scientific Name	*Common Name*
Amphibians	
PLETHODONTIDAE	
Batrachoseps attenuatus	California slender salamander ◆
Reptiles	
IGUANIDAE	
Sceloporus occidentalis	western fence lizard◆
Uta stansburiana	side-blotched lizard ◆
Eumeces skiltonianus	western skink ✓
Birds	
ACCIPITRIDAE	
Accipiter stiatus	sharp-shinned hawk ◆
Acipiter cooperi	Cooper's hawk ◆✓
Buteo lineatus	red-shouldered hawk ◆✓
Buteo jamaicensis	red-tailed hawk ✓
FALCONIDAE	
Falco sparverius	American kestrel+
LARIDAE	
Larus delawarensis	ring-billed gull ✓
COLUMBIDAE	
Columba livia *	rock dove (common pigeon)
Streptopelia chinensis *	spotted dove +✓
Zenaida macroura	mourning dove +◆✓◊
TYTONIDAE	
Tyto alba	barn owl+
STRIGIDAE	
Bubo virginianus	great horned owl ◆
TROCHILIDAE	
Archilochus alexandri	black-chinned hummingbird ◊
Calypte anna	Anna's hummingbird + ◆✓◊
Selasphorus sasin	Allen's hummingbird ◆✓◊
PICIDAE	
Colaptes auratus	northern flicker ◆
Picoides pubescences	downy woodpecker ✓
TIMALIIDAE	
Chamaea fasciata	wrentit ◆
PARIDAE	
Baeolophus inornatus	oak titmouse ◆◊
TROGLODYTIDAE	
Thryomanes bewickii	Bewick's wren ✓◊

TABLE A5-2	WILDLIFE SPECIES OBSERVED AND/OR EXPECTED TO OCCUR ON THE UCLA CAMPUS[1,2]
Scientific Name	***Common Name***
TYRANNIDAE	
Sayornis nigricans	black phoebe ✓◆◊
HIRUNDINIDAE	
Hirundo pyrrhonota	cliff swallow ◆
CORVIDAE	
Aphelocoma californicas	western scrub jay ◆✓◊
Corvus brachyrhynchos	American crow ◆✓◊
Corvus corax	common raven ◆✓◊
Euphagus cyanocephalus	Brewer's blackbird ◆
AEGITHALIDAE	
Psaltriparus minimus	bushtit ◆✓◊
MUSCICAPIDAE	
Regulus calendula	ruby-crowned kinglet ✓
Polioptila caerulea	blue-gray gnatcatcher ✓
Catharus guttatus	hermit thrush ✓
TURDIDAE	
Turdus migratorius	American robin ◆✓◊
MIMIDAE	
Mimus polyglottos	northern mockingbird + ◆✓◊
BOMBYCILLIDAE	
Bombycilla cedrorum	cedar waxwing ◆✓◊
STURNIDAE	
Sturnus vulgaris *	European starling +✓
PARULADAE	
Dendroica coronata	yellow-rumped warbler ◆✓◊
Dendroica townsendi	Townsend's warbler ✓
Wilsonia pusilla	Wilson's warbler ✓
Vermivora celata	orange-crowned warbler ◆✓◊
Vermivora ruficapilla	Nashville warbler ◊
Geothlypis trichas	common yellowthroat ◆
EMBERIZIDAE	
Melospiza melodia	song sparrow ◆✓◊
Pipilo crissalis	California towhee ◆✓◊
Pipilo erythropthalmus	spotted towhee ◆✓◊
Zonotrichia atricapilla	golden-crowned sparrow ◆
Zonotrichia leucophyrs	white-crowned sparrow ◆✓
ICTERIDAE	
Molothrus ater	brown-headed cowbird+

TABLE A5-2 WILDLIFE SPECIES OBSERVED AND/OR EXPECTED TO OCCUR ON THE UCLA CAMPUS[1,2]

Scientific Name	*Common Name*
FRINGILLIDAE	
Carpodacus mexicanus	house finch + ◆✓◊
Carduelis psaltria	lesser goldfinch ◆◊
Junco hyemalis	dark-eyed junco+
PASSERIDAE	
Passer domesticus *	house sparrow ◆
Thraupidae	
Piranga ludoviciana	western tanager◊
Mammals	
DIDELPHIDAE	
Didelphis virginiana *	Virginia opossum ◆
CERVIDAE	
Odocoileus hemionus	mule deer ◆✓
PROCYONIDAE	
Procyon lotor	raccoon ✓
CANIDAE	
Canis latrans	coyote ◆
SCIURIDAE	
Spermophilus beecheyi	California ground squirrel ◆✓
Sciurus niger *	fox squirrel ✓
GEOMYIDAE	
Thomomys bottae	Botta's pocket gopher ◆
MURIDAE	
Rattus norvegicus *	Norway rat ◆
Mus musculus *	house mouse ◆
Neotoma fuscipes	dusky-footed woodrat ◆
LEPORIDAE	
Sylvilagus audubonii	Audubon cottontail ✓◆

1. Taxonomy and nomenclature follow American Ornithologists' Union (1983) and supplements for birds, and Laundenslayer *et al.* (1991) for amphibians, reptiles, and mammals.
2. This is not intended to be an exhaustive list of all bird species that may occur at one time or another on the project sites during their migration; rather, it includes only those species that are most commonly observed in residential areas of coastal Los Angeles County.

* Non-native species

Sources: + UCLA Northwest Campus Development Phase II Supplemental EIR.
◆ Longcore, Travis, *et al.*, 1997; Biological Assessment, Coastal Sage Scrub at University of California, Los Angeles; surveys performed winter 1996.
✓ EIP field surveys performed 5 December 2001.
◊ EIP field surveys performed 22 April 2002.

Appendix 6 Supplementary Geology Information

DETAILED DESCRIPTION OF GEOLOGY AND SOILS FOR THE UCLA CAMPUS

This appendix provides information to supplement that provided in Section IV.G (Geology, Soils, and Seismicity) related to seismic hazards and underlying soil characteristics.

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) and Geotechnologies, Inc. Full bibliographic entries for all reference material are provided in Subsection 5 (References) of this section.

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 area west of the San Andreas Fault is known as the Pacific Plate, which is moving north relative to the North American Plate that lies on the east side of the fault.

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 Transverse Ranges trend east-west across the northern part of the Basin and comprise the Santa Monica, Verdugo, and San Gabriel Mountains and the San Fernando Valley. The rock types exposed in the vicinity of the campus include Jurassic (1,763–144 million years old [myo]), Cretaceous (97–66 myo), and Late Miocene (11–5 myo) marine sedimentary rocks. The Peninsular Ranges trend northwest-southeast and comprise numerous groups of hills (e.g., Baldwin Hills, Beverly Hills, Elysian Hills, Renetto Hills) rising toward the Santa Ana Mountains. The sediments exposed in the vicinity of the campus include Pleistocene nonmarine sedimentary deposits (2 million–10 thousand years old). The underlying marine sedimentary rocks are of Late Pleistocene age (more than 2 myo).

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 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. 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. The south-sloping surface topography results from drainage patterns of Dry and Stone Canyons, located north of the campus. Weathered on the surface to a red or brown color, these deposits generally consist of unconsolidated and poorly sorted clays, sands, and gravels that have been uplifted and are often cut by small displacement faults.

Older alluvial deposits of continental origin and Upper Pleistocene (Holocene) and Pleistocene age predominantly underlie the campus. According to the General Soil Map for Los Angeles County (Soil Conservation Service 1969), which is illustrated in Figure 4.5-1 (General Soil Map), the UCLA campus traverses two different mapping units that are named by the major soil series that occur within each unit. These two major soil series are defined as Pleasanton-Ojai and Hanford associations. Soils of these associations occur on gently sloping to moderately sloping alluvial fans and terraces between elevations from near sea level to 3,500 feet. These soils are used extensively for residential and industrial development in the Los Angeles basin.

Pleasanton soils are over 60 inches deep, are well drained, and have moderately slow subsoil permeability. They have light-brown to dark-brown loam or silt loam surface layers from 12 to 36 inches thick. The subsoil is brown to reddish-brown clay or silty clay loam to an average depth of 48 inches. The substratum is very gravelly, stratified material of variable textures. Pleasanton soils occur principally north and northeast of Santa Monica. These soils become more gravelly near the mountains. Available water-holding capacity is from 7.5 to 9.0 inches for 69 inches of soil depth. Inherent fertility is low.

Ojai soils are over 60 inches deep, are well drained, and have moderately slow subsoil permeability. They have grayish-brown and brown, slightly acid loam surface layers about 25 inches thick. The subsoil is reddish-brown and brown, slightly acid and neutral clay loam about 28 inches thick. The substratum is reddish-yellow, slightly acid, sandy loam that has lenses of gravelly sandy loam and is stratified. Available water-holding capacity is from 9.0 to 11.0 inches for 60 inches of soil depth. Inherent fertility is low.

Hanford soils are over 60 inches deep, are well drained, and have moderately rapid subsoil permeability. They have pale-brown coarse sandy loam surface layers about 8 inches thick underlain by light yellowish-brown coarse sandy loam and gravelly loamy coarse sand substratum. Typically they are slightly acid to mildly alkaline throughout but occasionally are calcareous in the lower part. Thin layers of coarser material may occur below 40 inches. Available water-holding capacity is from 5.0 to 7.5 inches for 60 inches of soil depth. Inherent fertility is moderate.

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. Figure 4.5-1 (General Soil Map) shows the soil patterns as they were presumed to be before urbanization occurred.

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. However, explorations for specific campus projects have reported unconsolidated materials and voids.

Faulting

Based on criteria established by the California Division of Mines and Geology (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. 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 the Malibu Coast/Santa Monica/Raymond/Sierra Madre/Cucamonga Fault zone and the Newport-Inglewood Fault. Figure 4.5-2 (Regional Seismicity) shows the approximate location of the campus in relation to these major fault systems.

The closest known active fault to the campus is the Hollywood Fault. The next closest known active fault is the Newport-Inglewood Fault. The northern end of the active Alquist-Priolo zoned portion of the Newport-Inglewood Fault is located approximately four miles to the southeast of the southern portion of the campus, while the extreme northern potentially active portion of the fault (which is not designed as an Alquist-Priolo zone by CDMG) is located approximately 2 miles south of the southern portion of the campus. The potentially active Santa Monica Fault is also located in close proximity to the campus. According to Dibblee (1991), the closest segment may lie in close proximity to the southwest portion of the campus, while according to Leighton (1990), the closest segment may be located approximately 1½ miles south of the southern most portion of the campus.

The potentially active Charnock and Overland Faults are also in relatively close proximity to the campus. The closest traces of the Charnock and Overland Faults are approximately one mile to the south and one mile to the southeast, respectively, of the southern portion of the campus. Other significant active faults within proximity of the campus include the Malibu Coast Fault, the Palos Verdes Fault, the Sierra Madre–San Fernando Fault, and the Verdugo Fault.

In addition to known faults, movement along buried blind thrust faults that have no obvious surface features can also occur due to the continued north-south compression across the greater Los Angeles area. In fact, until the time of the 1987 Whittier Narrows earthquake, the importance of folds and thrust belts in the region was not fully recognized. The Elysian Park Fault zone is one of these fold and thrust belts, which extends along the east and north flanks of the Los Angeles basin for a distance of approximately 60 miles. The Elysian Park Seismic zone is approximately 13 miles from the campus. Seismologists believe that activity on the Santa Monica thrust fault, the northern extension of the Elysian Park Structure fault, may have played a part in the ground shaking that occurred during the January 1994 Northridge earthquake.

In 1972, the Alquist-Priolo Special Studies Zones Act, now known as the Alquist-Priolo Earthquake Fault Zoning Act, was passed into law. The Act defines "active" and "potentially active" faults utilizing the same aging criteria as that used by the CDMG, which is indicated above. However, the established policy is to "zone" only those potentially active faults that have a relatively high potential for ground rupture. Therefore, not all faults termed "potentially active" by the CDMG are zoned under the Alquist-Priolo Act. There are no known active or potentially active faults at the campus, nor is the campus located in an Earthquake Fault zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1994.

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 the fault. A commonly used measure of a fault's ability to result in displacement is 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. 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.

Another measure of seismic potential used is the maximum probable earthquake (MPE). The MPE is defined as the largest Richter magnitude seismic event that appears to be reasonably expected within a 100-year period. The MPE associated with the Santa Monica fault would be a magnitude 7.0 event.

MCE and MPE have been used for many years to describe the Richter magnitude of an earthquake that could occur along a particular fault. 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 and MPE. 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 or the MPE. While the moment magnitude value may differ slightly from the MCE or MPE identified in this EIR, the new method for describing future fault activity does not alter the assumptions or conclusions of this EIR because the development under the LRDP Update 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 A6-1 (Estimated Maximum Credible Earthquake Magnitudes [Mw] for Major Faults within 20 Miles of the Campus).

TABLE A6-1 ESTIMATED MAXIMUM EARTHQUAKE MAGNITUDES (Mw) FOR MAJOR FAULTS WITHIN 20 MILES OF THE CAMPUS

Fault	*Magnitude*
Santa Monica	6.6
Hollywood	6.4

TABLE A6-1 ESTIMATED MAXIMUM EARTHQUAKE MAGNITUDES (Mw) FOR MAJOR FAULTS WITHIN 20 MILES OF THE CAMPUS

Fault	Magnitude
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
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

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Appendix 7 Air Quality Data and Health Risk Assessment

Air Quality Model Output

TOTAL OPERATIONAL EMISSIONS

Project Number: 10328-07
Project Name: UCLA LRDP Update

Existing Daily Campus Emissions

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Emissions Source	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Construction Activities	209.6	37.5	298.2	10.8	24.9	209.6	37.5	298.2	10.8	24.9
Stationary Sources	631.2	44.4	163.3	69.6	73.4	631.2	44.4	163.3	69.6	73.4
Landscape Maintenance	31.9	4.9	0.2	0.0	0.1	31.9	4.9	0.2	0.0	0.1
Consumer Products		114.2					12.2			
Motor Vehicles	15,379.3	1,251.4	1,632.9	7.4	785.3	14,681.5	1,180.6	1,563.3	6.6	696.6
Totals	16,252.0	1,452.4	2,094.6	87.8	883.7	15,554.2	1,279.6	2,025.0	87.0	795.0

Future Without Project Daily Campus Emissions (Year 2010)

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Emissions Source	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Construction Activities	163.9	31.0	265.3	10.8	45.0	163.9	31.0	265.3	10.8	45.0
Stationary Sources	699.7	49.2	181.0	77.1	81.4	699.7	49.2	181.0	77.1	81.4
Landscape Maintenance	35.4	5.4	0.2	0.0	0.1	35.4	5.4	0.2	0.0	0.1
Consumer Products		148.4					46.4			
Motor Vehicles	10,169.7	917.7	965.0	5.5	841.6	8,875.5	800.9	842.2	4.8	734.5
Totals	11,068.7	1,151.7	1,411.5	93.4	968.1	9,774.5	932.9	1,288.7	92.7	861.0

Future With LRDP Update Daily Campus Emissions (Year 2010)

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Emissions Source	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Construction Activities	163.9	31.0	265.3	10.8	45.0	163.9	31.0	265.3	10.8	45.0
Stationary Sources	777.3	54.7	201.1	85.7	90.4	777.3	54.7	201.1	85.7	90.4
Landscape Maintenance	39.3	6.0	0.2	0.0	0.1	39.3	6.0	0.2	0.0	0.1
Consumer Products		177.0					49.5			
Motor Vehicles	10,274.7	927.2	975.0	5.5	850.3	9,699.9	875.3	920.5	5.2	802.7
Totals	11,255.2	1,195.9	1,441.6	102.0	985.8	10,680.4	1,016.5	1,387.1	101.7	938.2

LRDP Update Without TDM Daily Campus Emissions (Year 2010)

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Emissions Source	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Construction Activities	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	11,010.9	993.6	1,044.9	5.9	911.2					
Totals	11,991.4	1,262.3	1,511.5	102.4	1,046.7	0.0	0.0	0.0	0.0	0.0

Net Increase in Daily Campus Emissions (Year 2010)

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Analysis Condition	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Total LRDP Baseline	11,068.7	1,151.7	1,411.5	93.4	968.1	9,774.5	932.9	1,288.7	92.7	861.0
Total LRDP Update	11,255.2	1,195.9	1,441.6	102.0	985.8	10,680.4	1,016.5	1,387.1	101.7	938.2
Net Increase	186.5	44.2	30.1	8.6	17.7	905.9	83.6	98.4	9.0	77.2

TDM Reduction in Daily Campus Emissions (Year 2010)

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Analysis Condition	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Total LRDP Update	11,255.2	1,195.9	1,441.6	102.0	985.8					
LRDP Update Without TDM	11,991.4	1,262.3	1,511.5	102.4	1,046.7					
Net Reduction	736.2	66.4	69.9	0.4	60.9	0.0	0.0	0.0	0.0	0.0
Percent Reduction	6.1%	5.3%	4.6%	0.4%	5.8%					

CONSTRUCTION EMISSIONS ESTIMATES
CONSTRUCTION PHASE - Existing Campus Construction Activities

Project Number: 10328-07
Project Name: UCLA LRDP Update

Construction Equipment Emissions
Emissions = F x G x H

	F	G	H									
		Hours/	Emission Factors in Pounds per Hour[1]					Emissions in Pounds per Day				
Equipment Type	Quantity	Day	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Generator Sets	13	2	1.479	0.054	0.002	0.0006	0.00025	38.5	1.4	0.1	0.0	0.0
Fork Lift - 50 Hp	6	6	0.18	0.053	0.441	0	0.031	6.5	1.9	15.9	0.0	1.1
Fork Lift - 175 Hp	3	6	0.52	0.17	1.54	0	0.93	9.4	3.1	27.7	0.0	16.7
Water Truck	2	4	1.8	0.19	4.17	0.45	0.26	14.4	1.5	33.4	3.6	2.1
Tracked Loader	0	8	0.201	0.095	0.83	0.076	0.059	-	-	-	-	-
Tracked Tractor	0	8	0.35	0.12	1.26	0.14	0.112	-	-	-	-	-
Scraper	0	7	1.25	0.27	3.84	0.46	0.41	-	-	-	-	-
Wheeled Dozer	1	6	0.572	0.12	0.713	0.35	0.165	3.4	0.7	4.3	2.1	1.0
Wheeled Loader	3	6	0.572	0.23	1.9	0.182	0.17	10.3	4.1	34.2	3.3	3.1
Wheeled Tractor	0	8	3.58	0.18	1.27	0.09	0.14	-	-	-	-	-
Roller	0	8	0.3	0.065	0.87	0.067	0.05	-	-	-	-	-
Motor Grader	0	8	0.151	0.039	0.713	0.086	0.061	-	-	-	-	-
Miscellaneous	0	8	0.675	0.15	1.7	0.143	0.14	-	-	-	-	-
Crane	4	6	0.75078	0.25026	1.91866	0.16684	0.12513	18.0	6.0	46.0	4.0	3.0
Backhoe	3	3.5	0.572	0.23	1.9	0.17	0.182	6.0	2.4	20.0	1.8	1.9
Paving Equipment	0	8	0.675	0.15	1.7	0.143	0.14	-	-	-	-	-
Subtotal								106.4	21.2	181.5	14.8	28.9

[1] Emission Factors from SCAQMD CEQA Air Quality Handbook (1993), Tables A9-8-A, A9-8-B, A9-8-C, and A9-8-D.

On-Road Vehicle Source Emissions
Emissions = F x G x H x I

	F	G	H	I									
		Trips/	Miles/	Emission Factors in Pounds per 100 Trips per Mile					Emissions in Pounds per Day				
Vehicle Type	Quantity	Vehicle	Trip	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Haul Trucks[2]	80	2	50	1.42511	0.22467	1.982379	0	0.012118	114.0	18.0	158.6	0.0	1.0
Construction Employees[3]	90	3.7	-	2.2	0.82	1.16	0	0.22	7.3	2.7	3.9	0.0	0.7
Subtotal									121.3	20.7	162.5	0.0	1.7

[2] Emission factors from EMFAC7G (Year 2001, 100% heavy-duty diesel, 90F)
[3] Emission factors from URBEMIS7G (Year 2001, construction worker trips)

Stationary Source Emissions
Emissions = F x G

	F	G					
	Units or	ctors in Pounds per Day			Emissions in Pounds per Day		
Emissions Source	1,000 sf	ROC	NOx	PM_{10}	ROC	NOx	PM_{10}
Stationary Sources	0	0.168	0.137	0.008	0.0	0.0	0.0

[4] Emission Factors from URBEMIS7G (2000).

Asphalt Paving
ROC Emissions = 2.62 lbs per acre x A / B[5]

	A	B	ROC
	Acres of	Days of	Emissions
Emissions Source	Paving	Paving	(lbs/day)
Asphalt Paving	0	1	0.0

[5] Emission Factors from URBEMIS7G (2000).

Architectural Coatings
ROC Emissions = 0.0185 lbs per square foot x A[6]

	A	
	Surface	ROC
	Area/	Emissions
Emissions Source	Day	(lbs/day)
Architectural Coatings	0	0.0

[6] Emission Factors from URBEMIS7G (2000).

Total Construction Phase Emissions

	Emissions in Pounds per Day				
Emissions Source	CO	ROC	NOx	SOx	PM_{10}
Construction Equipment	106.4	21.2	181.5	14.8	28.9
On-Road Vehicles	121.3	20.7	162.5	0.0	1.7
Stationary Equipment	-	0.0	0.0	-	0.0
Asphalt Paving	-	0.0	-	-	-
Architectural Coatings	-	0.0	-	-	-
Total	227.8	41.9	343.9	14.8	30.6

CONSTRUCTION EMISSIONS ESTIMATES
SITE EXCAVATION AND GRADING PHASE

Project Number: 10328-07
Project Name: UCLA LRDP
Construction Scenario: Scenario 1: Construction of Hedrick North, Excavation for Dykstra Parking, and Sproul 1st Floor Renovation

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Construction Equipment Emissions
Emissions = F x G x H

	F	G	H									
		Hours/	Emission Factors in Pounds per Hour[1]					Emissions in Pounds per Day				
Equipment Type	Quantity	Day	CO	ROC	NO_x	SO_x	PM_{10}	CO	ROC	NO_x	SO_x	PM_{10}
Generator Sets <50 HP	6	2	1.479	0.054	0.002	0.0006	0.00025	17.7	0.6	0.0	0.0	0.0
Fork Lift - 50 Hp	2	5	0.18	0.053	0.441	0	0.031	1.8	0.5	4.4	0.0	0.3
Fork Lift - 175 Hp	4	5	0.52	0.17	1.54	0	0.93	10.4	3.4	30.8	0.0	18.6
Water Truck	1	2	1.8	0.19	4.17	0.45	0.26	3.6	0.4	8.3	0.9	0.5
Tracked Loader	0	6	0.201	0.095	0.83	0.076	0.059	-	-	-	-	-
Tracked Tractor	0	6	0.35	0.12	1.26	0.14	0.112	-	-	-	-	-
Scraper	1	7	1.25	0.27	3.84	0.46	0.41	8.8	1.9	26.9	3.2	2.9
Wheeled Dozer	1	5	0.572	0.12	0.713	0.35	0.165	2.9	0.6	3.6	1.8	0.8
Wheeled Loader	2	5	0.572	0.23	1.9	0.182	0.17	5.7	2.3	19.0	1.8	1.7
Wheeled Tractor	0	6	3.58	0.18	1.27	0.09	0.14	-	-	-	-	-
Roller	0	6	0.3	0.065	0.87	0.067	0.05	-	-	-	-	-
Motor Grader	0	6	0.151	0.039	0.713	0.086	0.061	-	-	-	-	-
Crane	2	4	0.75078	0.25026	1.91866	0.16684	0.12513	6.0	2.0	15.3	1.3	1.0
Backhoe	3	3.5	0.572	0.23	1.9	0.17	0.182	6.0	2.4	20.0	1.8	1.9
Miscellaneous	0	6	0.675	0.15	1.7	0.143	0.14	-	-	-	-	-
Subtotal								62.9	14.2	128.3	10.8	27.7

[1] Emission Factors from SCAQMD CEQA Air Quality Handbook (1993), Tables A9-8-A, A9-8-B, A9-8-C, and A9-8-D.

On-Road Vehicle Source Emissions
Emissions = F x G x H x I

	F	G	H	I									
		Trips/	Miles/	Emission Factors in Pounds per 100 Trips per Mile					Emissions in Pounds per Day				
Vehicle Type	Quantity	Vehicle	Trip	CO	ROC	NO_x	SO_x	PM_{10}	CO	ROC	NO_x	SO_x	PM_{10}
Haul Trucks[2]	68	2	50	1.42511	0.22467	1.982379	0	0.012118	96.9	15.3	134.8	0.0	0.8
Construction Employees[3]	50	3.7	10.6	2.2	0.82	1.16	0	0.22	4.1	1.5	2.1	0.0	0.4
Subtotal									101.0	16.8	136.9	0.0	1.2

[2] Emission factors from EMFAC7G (Year 2001, 100% heavy-duty diesel, 90F)
[3] Emission factors from URBEMIS7G (Year 2001, construction worker trips)

Site Grading
PM_{10} Emissions = (10.0 lbs per day x A) - B[4]

	A	O		PM_{10}
	Acres/	Rule 403 Reduction		Emissions
Emissions Source	Day	%	lbs	(lbs/day)
Site Grading	5	68%	34.0	16.0

[4] Emission Factors from URBEMIS7G (2000).

Total Site Grading Phase Emissions

	Emissions in Pounds per Day				
Emissions Source	CO	ROC	NO_x	SO_x	PM_{10}
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 Grading	-	-	-	-	16.0
Total	163.9	31.0	265.3	10.8	45.0
SCAQMD Threshold	550.0	75.0	100.0	150.0	150.0
Exceeds Threshold?	No	No	Yes	No	No

CONSTRUCTION EMISSIONS ESTIMATES
SITE EXCAVATION AND GRADING PHASE

Project Number: 10328-07
Project Name: UCLA LRDP
Construction Scenario: Scenario 2: Construction of Hedrick North, Dykstra Parking, Rieber North, and Rieber West, and Renovation of Hedrick 1st Floor

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Construction Equipment Emissions
Emissions = F x G x H

	F	G	H									
		Hours/	Emission Factors in Pounds per Hour[1]					Emissions in Pounds per Day				
Equipment Type	Quantity	Day	CO	ROC	NO_x	SO_x	PM_{10}	CO	ROC	NO_x	SO_x	PM_{10}
Generator Sets <50 HP	12	2	1.479	0.054	0.002	0.0006	0.00025	35.5	1.3	0.0	0.0	0.0
Fork Lift - 50 Hp	4	5	0.18	0.053	0.441	0	0.031	3.6	1.1	8.8	0.0	0.6
Fork Lift - 175 Hp	8	5	0.52	0.17	1.54	0	0.93	20.8	6.8	61.6	0.0	37.2
Water Truck	0	2	1.8	0.19	4.17	0.45	0.26	-	-	-	-	-
Tracked Loader	0	6	0.201	0.095	0.83	0.076	0.059	-	-	-	-	-
Tracked Tractor	0	6	0.35	0.12	1.26	0.14	0.112	-	-	-	-	-
Scraper	0	7	1.25	0.27	3.84	0.46	0.41	-	-	-	-	-
Wheeled Dozer	0	5	0.572	0.12	0.713	0.35	0.165	-	-	-	-	-
Wheeled Loader	3	5	0.572	0.23	1.9	0.182	0.17	8.6	3.5	28.5	2.7	2.6
Wheeled Tractor	0	6	3.58	0.18	1.27	0.09	0.14	-	-	-	-	-
Roller	0	6	0.3	0.065	0.87	0.067	0.05	-	-	-	-	-
Motor Grader	0	6	0.151	0.039	0.713	0.086	0.061	-	-	-	-	-
Crane	5	4	0.75078	0.25026	1.91866	0.16684	0.12513	15.0	5.0	38.4	3.3	2.5
Backhoe	5	3.5	0.572	0.23	1.9	0.17	0.182	10.0	4.0	33.3	3.0	3.2
Miscellaneous	0	6	0.675	0.15	1.7	0.143	0.14	-	-	-	-	-
Subtotal								93.5	21.6	170.6	9.1	46.1

[1] Emission Factors from SCAQMD CEQA Air Quality Handbook (1993), Tables A9-8-A, A9-8-B, A9-8-C, and A9-8-D.

On-Road Vehicle Source Emissions
Emissions = F x G x H x I

	F	G	H	I									
		Trips/	Miles/	Emission Factors in Pounds per 100 Trips per Mile					Emissions in Pounds per Day				
Vehicle Type	Quantity	Vehicle	Trip	CO	ROC	NO_x	SO_x	PM_{10}	CO	ROC	NO_x	SO_x	PM_{10}
Haul Trucks[2]	8	2	50	1.42511	0.22467	1.982379	0	0.012118	11.4	1.8	15.9	0.0	0.1
Construction Employees[3]	70	3.7	10.6	2.2	0.82	1.16	0	0.22	5.7	2.1	3.0	0.0	0.6
Subtotal									17.1	3.9	18.9	0.0	0.7

[2] Emission factors from EMFAC7G (Year 2001, 100% heavy-duty diesel, 90F)
[3] Emission factors from URBEMIS7G (Year 2001, construction worker trips)

Site Grading
PM_{10} Emissions = (10.0 lbs per day x A) - B[4]

	A	O		PM_{10}
	Acres/	Rule 403 Reduction		Emissions
Emissions Source	Day	%	lbs	(lbs/day)
Site Grading	0	68%	0.0	0.0

[4] Emission Factors from URBEMIS7G (2000).

Total Site Grading Phase Emissions

	Emissions in Pounds per Day				
Emissions Source	CO	ROC	NO_x	SO_x	PM_{10}
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
Site Grading	-	-	-	-	0.0
Total	110.6	25.6	189.5	9.1	46.7
SCAQMD Threshold	550.0	75.0	100.0	150.0	150.0
Exceeds Threshold?	No	No	Yes	No	No

BUILDING NUMBERS AND SQUARE FOOTAGE

	Existing		Under Const./Approved		LRDP Baseline Total		Proposed LRDP		Total With LRDP	
ZONE	Square Feet	Buildings	Square Feet	Buildings	Square Feet	Buildings	Square Feet	Buildings	Square Feet	Buildings
Botanical Garden	0	0	19,100	1	19,100	1			19,100	1
Bridge	330,568	4	0	0	330,568	4			330,568	4
Campus Services	411,072	8	0	0	411,072	8			411,072	8
Central	1,007,125	15	69,950	3	1,077,075	18			1,077,075	18
Core - North	2,609,439	35	138,600	3	2,748,039	38			2,748,039	38
Core South	3,662,968	33	514,280	3	4,177,248	36			4,177,248	36
Health Sciences	3,287,991	24	-183,595	-2	3,104,396	22			3,104,396	22
Northwest	2,100,079	40	65,100	1	2,165,179	41			2,165,179	41
Southwest	472,453	13	882,000	1	1,354,453	14			1,354,453	14
Other	0	0	0	0	0	0	1,706,500	10	1,706,500	10
Totals	13,881,695	172	1,505,435	10	15,387,130	182	1,706,500	10	17,093,630	192
	100.0%		10.8%		110.8%		12.3%		123.1%	

STATIONARY SOURCE EMISSIONS

Analysis Scenario	Percent of		Emissions in Tons Per Year			
Existing Uses and Operations	Existing	CO	VOC	NOx	SOx	PM10
		115.2	8.1	29.8	12.7	13.4

This Equates to:

			Emissions in Pounds Per Day			
		CO	VOC	NOx	SOx	PM10
Existing Uses and Operations	100.0%	631.2	44.4	163.3	69.6	73.4
LRDP Baseline Uses and Oper.	110.8%	699.7	49.2	181.0	77.1	81.4
Total with LRDP Update	123.1%	777.3	54.7	201.1	85.7	90.4

LANDSCAPE MAINTENANCE EMISSIONS

	Number of		Emission Factors in Pounds Per Day			
Analysis Scenario	"Business Units'	CO	VOC	NOx	SOx	PM10
		1.149	0.175	0.007	0	0.0041

			Emissions in Pounds Per Day			
		CO	VOC	NOx	SOx	PM10
Existing Uses and Operations	28	31.9	4.9	0.2	0.0	0.1
LRDP Baseline Uses and Oper.	31	35.4	5.4	0.2	0.0	0.1
Total with LRDP Update	34	39.3	6.0	0.2	0.0	0.1

URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\UCLA LRDP Fut
Project Name: UCLA LRDP Update - Future Baseline Use Traffic Volumes in 2010 - R
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Summer)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (ppd, unmitigated)	917.72	965.03	10,169.67	841.61	5.46

URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\UCLA LRDP Fut
Project Name: UCLA LRDP Update - Future Baseline Use Traffic Volumes in 2010 - R
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
University/college (4 yrs	917.72	965.03	10,169.67	841.61	5.46
TOTAL EMISSIONS (lbs/day)	917.72	965.03	10,169.67	841.61	5.46

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
University/college (4 yrs	128,056.00 trips / UCLA campus	1.00	128,056.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	68.23	4.70	94.50	0.80
Light Truck < 3,750 lbs	10.33	11.00	88.90	0.10
Light Truck 3,751- 5,750	18.56	1.80	97.60	0.60
Med Truck 5,751- 8,500	0.30	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	0.05	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.01	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.05	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.03	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.56	90.90	9.10	0.00
School Bus	0.11	0.00	0.00	100.00
Motor Home	0.77	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)			
University/college (4 yrs)	5.0	2.5	92.5

Changes made to the default values for Operations

The mitigation option switch changed from on to off.
The light auto percentage changed from 61.4 to 68.23.
The light truck < 3750 lbs percentage changed from 9.3 to 10.33.
The light truck 3751-5750 percentage changed from 16.7 to 18.56.
The med truck 5751-8500 percentage changed from 7.2 to 0.30.
The lite-heavy truck 8501-10000 percentage changed from 1.1 to 0.05.
The lite-heavy truck 10001-14000 percentage changed from 0.3 to 0.01.
The med-heavy truck 14001-33000 percentage changed from 1.1 to 0.05.
The heavy-heavy truck 33001-60000 percentage changed from 0.7 to 0.03.
The motorcycle percentage changed from 1.4 to 1.56.
The school bus percentage changed from 0.1 to 0.11.
The motorhome percentage changed from 0.7 to 0.77.
The operational emission year changed from 2002 to 2010.
The operational winter selection item changed from 3 to 2.
The operational summer temperature changed from 90 to 70.
The operational summer selection item changed from 8 to 4.
The travel mode environment settings changed from both to: none
The default/nodefault travel setting changed from nodefault to: nodefault
Side Walks/Paths: No Sidewalks
changed to: Side Walks/Paths: Complete Coverage
Street Trees Provide Shade: No Coverage
changed to:Street Trees Provide Shade: Moderate Coverage
Pedestrian Circulation Access: No Destinations
changed to:Pedestrian Circulation Access: Most Destinations
Visually Interesting Uses: No Uses Within Walking Distance
changed to:Visually Interesting Uses: Large Number and Variety
Street System Enhances Safety: No Streets
changed to: Street System Enhances Safety: Most Streets
Pedestrian Safety from Crime: No Degree of Safety
changed to:Pedestrian Safety from Crime: High Degree of Safety
Visually Interesting Walking Routes: No Visual Interest
changed to:Visually Interesting Walking Routes: Moderate Level
Transit Service: Dial-A-Ride or No Transit Service
changed to: Transit Service: 15-30 Minute Bus within 1/4 Mile
Interconnected Bikeways: No Bikeway Coverage
changed to: Interconnected Bikeways: Moderate Coverage
Bike Routes Provide Paved Shoulders: No Routes
changed to:Bike Routes Provide Paved Shoulders: Few Routes
Safe Vehicle Speed Limits: No Routes Provided
changed to:Safe Vehicle Speed Limits: Few Destinations
Safe School Routes: No Schools
changed to: Safe School Routes: University/College Within Cycling Distance
Uses w/in Cycling Distance: No Uses w/in Cycling Distance
changed to:Uses w/in Cycling Distance: Large Number and Variety
Mitigation measure Project Density Meets Transit Level of Service Requirements:6
has been changed from off to on.
Mitigation measure Provide Transit Shelters Benches:2
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Provide Route Signs and Displays:0.5
has been changed from off to on.
Mitigation measure Provide Bus Turnouts:1
has been changed from off to on.

URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\UCLA LRDP Fut
Project Name: UCLA LRDP Update - Future Baseline Use Traffic Volumes in 2010 - S
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Summer)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (ppd, unmitigated)	800.94	842.23	8,875.51	734.51	4.77

URBEMIS 2001 For Windows 6.2.2

File Name:	C:\Program Files\URBEMIS 2001 For Windows\Projects2k\UCLA LRDP Fut
Project Name:	UCLA LRDP Update - Future Baseline Use Traffic Volumes in 2010 - S
Project Location:	South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
University/college (4 yrs	800.94	842.23	8,875.51	734.51	4.77
TOTAL EMISSIONS (lbs/day)	800.94	842.23	8,875.51	734.51	4.77

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
University/college (4 yrs	111,760.00 trips / UCLA campus	1.00	111,760.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	68.23	4.70	94.50	0.80
Light Truck < 3,750 lbs	10.33	11.00	88.90	0.10
Light Truck 3,751- 5,750	18.56	1.80	97.60	0.60
Med Truck 5,751- 8,500	0.30	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	0.05	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.01	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.05	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.03	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.56	90.90	9.10	0.00
School Bus	0.11	0.00	0.00	100.00
Motor Home	0.77	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)			
University/college (4 yrs)	5.0	2.5	92.5

Changes made to the default values for Operations

The mitigation option switch changed from on to off.
The light auto percentage changed from 61.4 to 68.23.
The light truck < 3750 lbs percentage changed from 9.3 to 10.33.
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The operational emission year changed from 2002 to 2010.
The operational winter selection item changed from 3 to 2.
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The operational summer selection item changed from 8 to 4.
The travel mode environment settings changed from both to: none
The default/nodefault travel setting changed from nodefault to: nodefault
Side Walks/Paths: No Sidewalks
changed to: Side Walks/Paths: Complete Coverage
Street Trees Provide Shade: No Coverage
changed to:Street Trees Provide Shade: Moderate Coverage
Pedestrian Circulation Access: No Destinations
changed to:Pedestrian Circulation Access: Most Destinations
Visually Interesting Uses: No Uses Within Walking Distance
changed to:Visually Interesting Uses: Large Number and Variety
Street System Enhances Safety: No Streets
changed to: Street System Enhances Safety: Most Streets
Pedestrian Safety from Crime: No Degree of Safety
changed to:Pedestrian Safety from Crime: High Degree of Safety
Visually Interesting Walking Routes: No Visual Interest
changed to:Visually Interesting Walking Routes: Moderate Level
Transit Service: Dial-A-Ride or No Transit Service
changed to: Transit Service: 15-30 Minute Bus within 1/4 Mile
Interconnected Bikeways: No Bikeway Coverage
changed to: Interconnected Bikeways: Moderate Coverage
Bike Routes Provide Paved Shoulders: No Routes
changed to:Bike Routes Provide Paved Shoulders: Few Routes
Safe Vehicle Speed Limits: No Routes Provided
changed to:Safe Vehicle Speed Limits: Few Destinations
Safe School Routes: No Schools
changed to: Safe School Routes: University/College Within Cycling Distance
Uses w/in Cycling Distance: No Uses w/in Cycling Distance
changed to:Uses w/in Cycling Distance: Large Number and Variety
Mitigation measure Project Density Meets Transit Level of Service Requirements:6
has been changed from off to on.
Mitigation measure Provide Transit Shelters Benches:2
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Provide Route Signs and Displays:0.5
has been changed from off to on.
Mitigation measure Provide Bus Turnouts:1
has been changed from off to on.

URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\UCLA LRDP Pro
Project Name: UCLA LRDP Update - LRDP Traffic Volumes in 2010 - Regular Session
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Summer)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (ppd, unmitigated)	927.20	975.00	10,274.66	850.30	5.52

URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\UCLA LRDP Pro
Project Name: UCLA LRDP Update - LRDP Traffic Volumes in 2010 - Regular Session
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
University/college (4 yrs	927.20	975.00	10,274.66	850.30	5.52
TOTAL EMISSIONS (lbs/day)	927.20	975.00	10,274.66	850.30	5.52

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
University/college (4 yrs	129,378.00 trips / UCLA campus	1.00	129,378.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	68.23	4.70	94.50	0.80
Light Truck < 3,750 lbs	10.33	11.00	88.90	0.10
Light Truck 3,751- 5,750	18.56	1.80	97.60	0.60
Med Truck 5,751- 8,500	0.30	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	0.05	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.01	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.05	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.03	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.56	90.90	9.10	0.00
School Bus	0.11	0.00	0.00	100.00
Motor Home	0.77	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)			
University/college (4 yrs)	5.0	2.5	92.5

Changes made to the default values for Operations

The mitigation option switch changed from on to off.
The light auto percentage changed from 61.4 to 68.23.
The light truck < 3750 lbs percentage changed from 9.3 to 10.33.
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The default/nodefault travel setting changed from nodefault to: nodefault
Side Walks/Paths: No Sidewalks
changed to: Side Walks/Paths: Complete Coverage
Street Trees Provide Shade: No Coverage
changed to:Street Trees Provide Shade: Moderate Coverage
Pedestrian Circulation Access: No Destinations
changed to:Pedestrian Circulation Access: Most Destinations
Visually Interesting Uses: No Uses Within Walking Distance
changed to:Visually Interesting Uses: Large Number and Variety
Street System Enhances Safety: No Streets
changed to: Street System Enhances Safety: Most Streets
Pedestrian Safety from Crime: No Degree of Safety
changed to:Pedestrian Safety from Crime: High Degree of Safety
Visually Interesting Walking Routes: No Visual Interest
changed to:Visually Interesting Walking Routes: Moderate Level
Transit Service: Dial-A-Ride or No Transit Service
changed to: Transit Service: 15-30 Minute Bus within 1/4 Mile
Interconnected Bikeways: No Bikeway Coverage
changed to: Interconnected Bikeways: Moderate Coverage
Bike Routes Provide Paved Shoulders: No Routes
changed to:Bike Routes Provide Paved Shoulders: Few Routes
Safe Vehicle Speed Limits: No Routes Provided
changed to:Safe Vehicle Speed Limits: Few Destinations
Safe School Routes: No Schools
changed to: Safe School Routes: University/College Within Cycling Distance
Uses w/in Cycling Distance: No Uses w/in Cycling Distance
changed to:Uses w/in Cycling Distance: Large Number and Variety
Mitigation measure Project Density Meets Transit Level of Service Requirements:6
has been changed from off to on.
Mitigation measure Provide Transit Shelters Benches:2
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Provide Route Signs and Displays:0.5
has been changed from off to on.
Mitigation measure Provide Bus Turnouts:1
has been changed from off to on.

URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\UCLA LRDP Pro
Project Name: UCLA LRDP Update - LRDP Traffic Volumes in 2010 - Summer Session
Project Location: South Coast Air Basin (Los Angeles area)

SUMMARY REPORT
(Pounds/Day - Summer)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (ppd, unmitigated)	875.33	920.46	9,699.93	802.74	5.21

URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\UCLA LRDP Pro
Project Name: UCLA LRDP Update - LRDP Traffic Volumes in 2010 - Summer Session
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
University/college (4 yrs	875.33	920.46	9,699.93	802.74	5.21
TOTAL EMISSIONS (lbs/day)	875.33	920.46	9,699.93	802.74	5.21

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
University/college (4 yrs	122,141.00 trips / UCLA campus	1.00	122,141.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	68.23	4.70	94.50	0.80
Light Truck < 3,750 lbs	10.33	11.00	88.90	0.10
Light Truck 3,751- 5,750	18.56	1.80	97.60	0.60
Med Truck 5,751- 8,500	0.30	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	0.05	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.01	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.05	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.03	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.56	90.90	9.10	0.00
School Bus	0.11	0.00	0.00	100.00
Motor Home	0.77	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)			
University/college (4 yrs)	5.0	2.5	92.5

Changes made to the default values for Operations

The mitigation option switch changed from on to off.
The light auto percentage changed from 61.4 to 68.23.
The light truck < 3750 lbs percentage changed from 9.3 to 10.33.
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The lite-heavy truck 10001-14000 percentage changed from 0.3 to 0.01.
The med-heavy truck 14001-33000 percentage changed from 1.1 to 0.05.
The heavy-heavy truck 33001-60000 percentage changed from 0.7 to 0.03.
The motorcycle percentage changed from 1.4 to 1.56.
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Side Walks/Paths: No Sidewalks
changed to: Side Walks/Paths: Complete Coverage
Street Trees Provide Shade: No Coverage
changed to:Street Trees Provide Shade: Moderate Coverage
Pedestrian Circulation Access: No Destinations
changed to:Pedestrian Circulation Access: Most Destinations
Visually Interesting Uses: No Uses Within Walking Distance
changed to:Visually Interesting Uses: Large Number and Variety
Street System Enhances Safety: No Streets
changed to: Street System Enhances Safety: Most Streets
Pedestrian Safety from Crime: No Degree of Safety
changed to:Pedestrian Safety from Crime: High Degree of Safety
Visually Interesting Walking Routes: No Visual Interest
changed to:Visually Interesting Walking Routes: Moderate Level
Transit Service: Dial-A-Ride or No Transit Service
changed to: Transit Service: 15-30 Minute Bus within 1/4 Mile
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changed to: Interconnected Bikeways: Moderate Coverage
Bike Routes Provide Paved Shoulders: No Routes
changed to:Bike Routes Provide Paved Shoulders: Few Routes
Safe Vehicle Speed Limits: No Routes Provided
changed to:Safe Vehicle Speed Limits: Few Destinations
Safe School Routes: No Schools
changed to: Safe School Routes: University/College Within Cycling Distance
Uses w/in Cycling Distance: No Uses w/in Cycling Distance
changed to:Uses w/in Cycling Distance: Large Number and Variety
Mitigation measure Project Density Meets Transit Level of Service Requirements:6
has been changed from off to on.
Mitigation measure Provide Transit Shelters Benches:2
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Provide Route Signs and Displays:0.5
has been changed from off to on.
Mitigation measure Provide Bus Turnouts:1
has been changed from off to on.

TOTAL OPERATIONAL EMISSIONS

Project Number: 10328-07
Project Name: UCLA LRDP Update

Future Without LRDP Update Daily Campus Emissions

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Emissions Source	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Construction Activities	163.9	31.0	265.3	10.8	45.0	163.9	31.0	265.3	10.8	45.0
Stationary Sources	699.7	49.2	181.0	77.1	81.4	699.7	49.2	181.0	77.1	81.4
Landscape Maintenance	35.4	5.4	0.2	0.0	0.1	35.4	5.4	0.2	0.0	0.1
Consumer Products		148.4					46.4			
Motor Vehicles	10,169.7	917.7	965.0	5.5	841.6	8,875.5	800.9	842.2	4.8	734.5
Totals	11,068.7	1,151.7	1,411.5	93.4	968.1	9,774.5	932.9	1,288.7	92.7	861.0

Alternative 1: No Project/Continued Implementation and Extension of the 1990 LRDP through 2010/2011

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Emissions Source	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Construction Activities	163.9	31.0	265.3	10.8	45.0	163.9	31.0	265.3	10.8	45.0
Stationary Sources	777.3	54.7	201.1	85.7	90.4	777.3	54.7	201.1	85.7	90.4
Landscape Maintenance	39.3	6.0	0.2	0.0	0.1	39.3	6.0	0.2	0.0	0.1
Consumer Products		148.4					46.4			
Motor Vehicles	10,278.3	927.5	975.3	5.6	850.6	9,556.3	862.3	906.8	5.2	790.8
Totals	11,258.8	1,167.6	1,441.9	102.1	986.1	10,536.8	1,000.4	1,373.4	101.7	926.3

Alternative 3: Regular Session Growth Only

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Emissions Source	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Construction Activities	163.9	31.0	265.3	10.8	45.0	163.9	31.0	265.3	10.8	45.0
Stationary Sources	777.3	54.7	201.1	85.7	90.4	702.4	49.9	197.2	77.1	81.4
Landscape Maintenance	39.3	6.0	0.2	0.0	0.1	36.6	5.6	0.2	0.0	0.1
Consumer Products		177.0					49.5			
Motor Vehicles	10,155.5	916.4	963.6	5.5	840.4	9,152.2	825.9	868.5	4.9	757.4
Totals	11,136.0	1,185.1	1,430.2	102.0	975.9	10,055.1	961.9	1,331.2	92.8	883.9

Net Change in Daily Campus Emissions With Alternative 1

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Analysis Condition	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Proposed Project	11,068.7	1,151.7	1,411.5	93.4	968.1	9,774.5	932.9	1,288.7	92.7	861.0
Alternative 1	11,258.8	1,167.6	1,441.9	102.1	986.1	10,536.8	1,000.4	1,373.4	101.7	926.3
Net Change	190.1	15.9	30.4	8.7	18.0	762.3	67.5	84.7	9.0	65.3

Net Change in Daily Campus Emissions With Alternative 3

	Regular Session Emissions in Pounds per Day					Summer Session Emissions in Pounds per Day				
Analysis Condition	CO	ROC	NOx	SOx	PM_{10}	CO	ROC	NOx	SOx	PM_{10}
Proposed Project	11,068.7	1,151.7	1,411.5	93.4	968.1	9,774.5	932.9	1,288.7	92.7	861.0
Alternative 1	11,136.0	1,185.1	1,430.2	102.0	975.9	10,055.1	961.9	1,331.2	92.8	883.9
Net Change	67.3	33.5	18.7	8.6	7.8	280.6	29.0	42.5	0.1	22.9

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Church Ln.-Ovada Ln./Sepulveda Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	15	15
East-West Roadway:	Church Ln.-Ovada Ln.	At Grade	4	15	15

A.M. Peak Hour Traffic Volumes

N	605 <	1,490 v	3 >
W	1 ^	151 >	76 v
E	2 ^	140 <	77 v
S	32 <	509 ^	82 >

P.M. Peak Hour Traffic Volumes

N	218 <	311 v	3 >
W	523 ^	54 >	18 v
E	5 ^	94 <	66 v
S	5 <	2,517 ^	210 >

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,610	3,577
E-W Road:	1,005	912

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,610	12.31	2.25	1.73	1.22
East-West Road	2.6	2.2	1.7	1,005	12.31	0.32	0.27	0.21
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	3,577	12.31	3.08	2.38	1.67
East-West Road	2.6	2.2	1.7	912	12.31	0.29	0.25	0.19

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.4	9.2	6.0
50 Feet from Roadway Edge	7.8	8.4	5.4
100 Feet from Roadway Edge	7.2	7.7	4.9

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

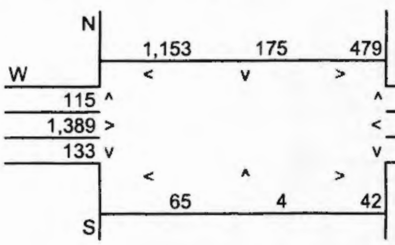
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

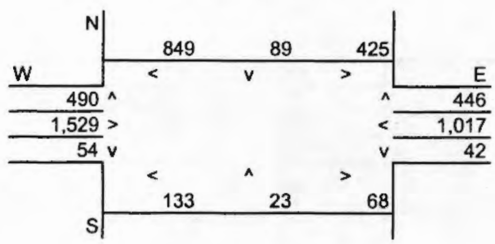
Intersection: Sunset Blvd./Church Ln.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Church Ln.	At Grade	4	15	15
East-West Roadway:	Sunset Blvd.	At Grade	4	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,374	N-S Road:	2,322
E-W Road:	4,145	E-W Road:	4,072

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,374	12.31	0.76	0.64	0.50
East-West Road	7.0	5.4	3.8	4,145	12.31	3.57	2.75	1.94
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,322	12.31	0.74	0.63	0.49
East-West Road	7.0	5.4	3.8	4,072	12.31	3.51	2.71	1.90

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	10.1	10.1	6.6
50 Feet from Roadway Edge	9.2	9.1	6.0
100 Feet from Roadway Edge	8.2	8.2	5.3

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

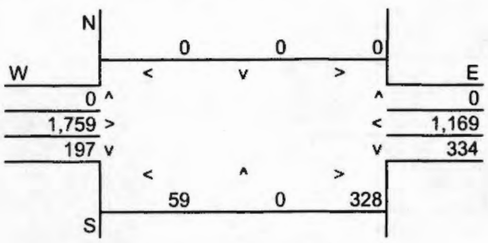
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

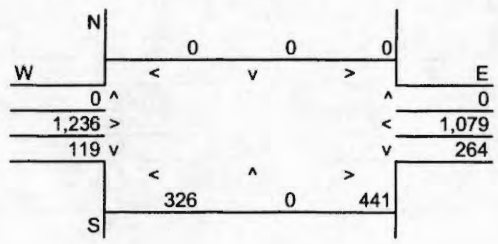
Intersection: Sunset Blvd./Veteran Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	15	15
East-West Roadway:	Sunset Blvd.	At Grade	4	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	918	1,150
E-W Road:	3,590	3,020

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	918	12.31	0.31	0.25	0.19
East-West Road	7.0	5.4	3.8	3,590	12.31	3.09	2.39	1.68
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,150	12.31	0.38	0.31	0.24
East-West Road	7.0	5.4	3.8	3,020	12.31	2.60	2.01	1.41

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.2	8.8	6.0
50 Feet from Roadway Edge	8.4	8.1	5.4
100 Feet from Roadway Edge	7.7	7.5	4.9

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

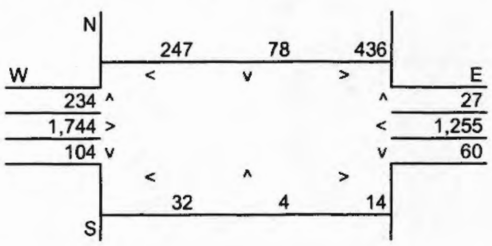
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

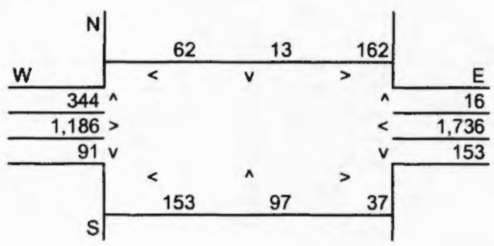
Intersection: Sunset Blvd./Bellagio Way
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Bellagio Way	At Grade	2	15	10
East-West Roadway:	Sunset Blvd.	At Grade	4	15	10

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,026	694
E-W Road:	3,616	3,572

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,026	12.31	0.34	0.28	0.21
East-West Road	7.0	5.4	3.8	3,616	12.31	3.11	2.40	1.69
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	694	18.24	0.34	0.28	0.22
East-West Road	7.0	5.4	3.8	3,572	18.24	4.56	3.52	2.48

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.3	10.7	7.0
50 Feet from Roadway Edge	8.5	9.6	6.3
100 Feet from Roadway Edge	7.7	8.5	5.5

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Sunset Blvd./Westwood Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd	At Grade	4	20	20
East-West Roadway:	Sunset Blvd.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N				
	0	0	0	
W	<	v	>	E
0 ^				^ 0
1,601 >				< 1,346
389 v				v 138
	<	^	>	
	28	0	33	
S				

P.M. Peak Hour Traffic Volumes

N				
	0	0	0	
W	<	v	>	E
0 ^				^ 0
1,201 >				< 1,687
134 v				v 67
	<	^	>	
	223	0	166	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	588	590
E-W Road:	3,364	3,245

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	588	9.33	0.14	0.12	0.09
East-West Road	7.0	5.4	3.8	3,364	9.33	2.20	1.70	1.19
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	590	9.33	0.14	0.12	0.09
East-West Road	7.0	5.4	3.8	3,245	9.33	2.12	1.64	1.15

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.1	8.1	5.2
50 Feet from Roadway Edge	7.6	7.6	4.9
100 Feet from Roadway Edge	7.1	7.0	4.5

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Sunset Blvd./Stone Canyon Rd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Stone Canyon Rd.	At Grade	2	20	20
East-West Roadway:	Sunset Blvd.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N: 61 < , 0 v , 0 >
W: 67 ^ , 1,190 > , 280 v
E: ^ 86 , < 1,307 , v 21
S: < 82 , ^ 1 , > 28

P.M. Peak Hour Traffic Volumes

N: 0 < , 0 v , 0 >
W: 48 ^ , 1,302 > , 51 v
E: ^ 29 , < 1,480 , v 16
S: < 212 , ^ 0 , > 67

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	412	346
E-W Road:	2,987	3,093

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	412	9.33	0.10	0.08	0.07
East-West Road	7.0	5.4	3.8	2,987	9.33	1.95	1.51	1.06
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	346	9.33	0.09	0.07	0.05
East-West Road	7.0	5.4	3.8	3,093	9.33	2.02	1.56	1.10

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.9	7.9	5.1
50 Feet from Roadway Edge	7.4	7.4	4.7
100 Feet from Roadway Edge	6.9	7.0	4.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Sunset Blvd.-Hilgard Ave./Copa De Oro Rd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Copa De Oro Rd.	At Grade	2	15	15
East-West Roadway:	Sunset Blvd.- Hilgard Ave.	At Grade	4	15	15

A.M. Peak Hour Traffic Volumes

N
33 < 93 v 34 >
W — E
27 ^ | ^ 37
944 > | < 1,198
258 v | v 407
< 176 ^ 37 > 117
S

P.M. Peak Hour Traffic Volumes

N
29 < 131 v 55 >
W — E
18 ^ | ^ 30
1,176 > | < 1,217
196 v | v 154
< 296 ^ 65 > 516
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,088	N-S Road:	1,358
E-W Road:	2,737	E-W Road:	3,148

Roadway CO Contributions and Concentrations
Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,088	12.31	0.36	0.29	0.23
East-West Road	7.0	5.4	3.8	2,737	12.31	2.36	1.82	1.28
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,358	12.31	0.45	0.37	0.28
East-West Road	7.0	5.4	3.8	3,148	12.31	2.71	2.09	1.47

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations
Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.5	9.0	5.8
50 Feet from Roadway Edge	7.9	8.3	5.3
100 Feet from Roadway Edge	7.3	7.6	4.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Sunset Blvd.- Beverly Glen Blvd./Bel Air Rd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd./ Bel Air Rd.	At Grade	4	10	10
East-West Roadway:	Sunset Blvd.	At Grade	4	10	10

A.M. Peak Hour Traffic Volumes

		N			
		20	90	87	
W		<	v	>	E
20 ^					^ 78
914 >					< 1,725
181 v					v 643
		<	^	>	
		105	79	480	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		30	67	83	
W		<	v	>	E
23 ^					^ 82
1,667 >					< 1,196
100 v					v 325
		<	^	>	
		204	157	632	
		S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,578	1,485
E-W Road:	3,927	3,985

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,578	18.24	0.75	0.63	0.49
East-West Road	7.0	5.4	3.8	3,927	18.24	5.02	3.87	2.72
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,485	18.24	0.70	0.60	0.46
East-West Road	7.0	5.4	3.8	3,985	18.24	5.09	3.93	2.76

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	11.6	11.6	7.7
50 Feet from Roadway Edge	10.3	10.3	6.8
100 Feet from Roadway Edge	9.0	9.0	5.9

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Sunset Blvd. (east IS) & Beverly Glen Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd.	At Grade	4	10	10
East-West Roadway:	Sunset Blvd (east IS)	At Grade	4	10	10

A.M. Peak Hour Traffic Volumes

N		0	917	147	
W		<	v	>	E
0 ^				^	44
0 >				<	1,570
0 v				v	0
		<	^	>	
		0	628	1,040	
S					

P.M. Peak Hour Traffic Volumes

N		0	602	90	
W		<	v	>	E
0 ^				^	106
0 >				<	0
0 v				v	997
		<	^	>	
		0	1,061	1,363	
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,585	N-S Road:	4,023
E-W Road:	2,801	E-W Road:	2,556

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,585	18.24	1.23	1.04	0.80
East-West Road	7.0	5.4	3.8	2,801	18.24	3.58	2.76	1.94
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	4,023	18.24	5.14	3.96	2.79
East-West Road	2.6	2.2	1.7	2,556	18.24	1.21	1.03	0.79

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	10.6	12.2	8.0
50 Feet from Roadway Edge	9.6	10.8	7.1
100 Feet from Roadway Edge	8.5	9.4	6.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

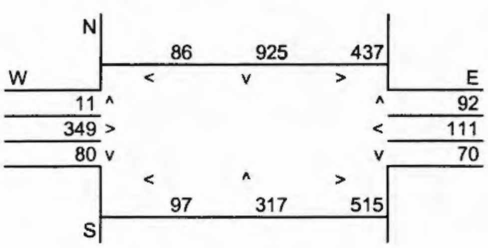
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

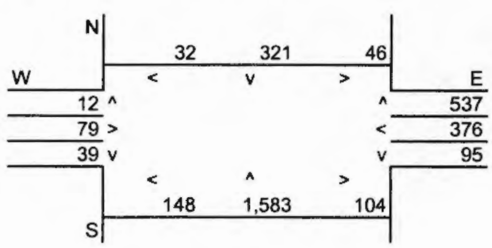
Intersection: Montana Ave./Sepulveda Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	15	15
East-West Roadway:	Montana Ave.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,004	2,531
E-W Road:	1,574	1,237

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,004	12.31	1.73	1.33	0.94
East-West Road	2.7	2.2	1.7	1,574	12.31	0.52	0.43	0.33
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,531	12.31	2.18	1.68	1.18
East-West Road	2.7	2.2	1.7	1,237	12.31	0.41	0.33	0.26

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.0	8.4	5.4
50 Feet from Roadway Edge	7.6	7.8	5.0
100 Feet from Roadway Edge	7.1	7.2	4.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

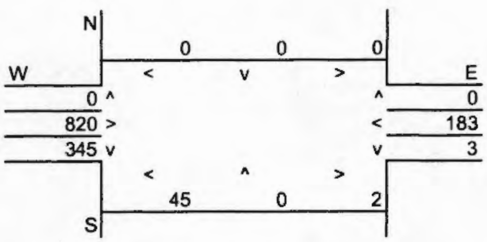
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

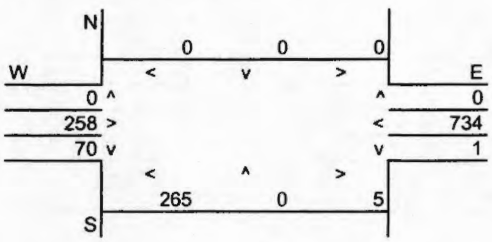
Intersection: Montana Ave./Levering Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Levering Ave.	At Grade	2	15	10
East-West Roadway:	Montana Ave.	At Grade	2	15	10

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	395	N-S Road:	341
E-W Road:	1,393	E-W Road:	1,327

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	395	12.31	0.13	0.11	0.08
East-West Road	7.6	5.7	4.0	1,393	12.31	1.30	0.98	0.69
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	341	18.24	0.17	0.14	0.11
East-West Road	7.6	5.7	4.0	1,327	18.24	1.84	1.38	0.97

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.2	7.8	5.0
50 Feet from Roadway Edge	6.9	7.3	4.7
100 Feet from Roadway Edge	6.6	6.9	4.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

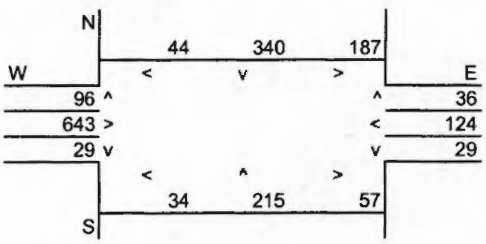
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

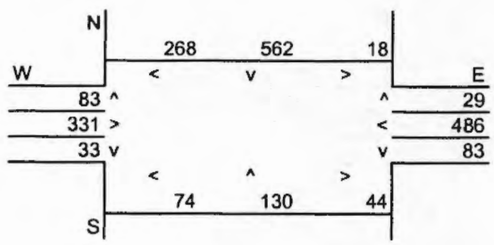
Intersection: Montana Ave./ Gayley Ave. - Veteran Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave. - Veteran Ave.	At Grade	4	15	15
East-West Roadway:	Montana Ave.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	918	1,090
E-W Road:	1,076	1,275

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	918	12.31	0.29	0.25	0.19
East-West Road	7.6	5.7	4.0	1,076	12.31	1.01	0.75	0.53
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,090	12.31	0.35	0.30	0.23
East-West Road	7.6	5.7	4.0	1,275	12.31	1.19	0.89	0.63

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.1	7.3	4.7
50 Feet from Roadway Edge	6.8	7.0	4.4
100 Feet from Roadway Edge	6.5	6.7	4.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Strathmore Pl./Gayley Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave.	At Grade	4	20	20
East-West Roadway:	Strathmore Pl.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

```
       N|                          |
        |    9     323      537    |
W       |    <      v        >     |        E
     1 ^                         ^       39
   113 >                         <       20
    11 v                         v      105
        |    <      ^        >     |
        |    7     163      378    |
       S|                          |
```

P.M. Peak Hour Traffic Volumes

```
       N|                          |
        |   12     216      149    |
W       |    <      v        >     |        E
    11 ^                         ^      409
   125 >                         <      201
    20 v                         v      358
        |    <      ^        >     |
        |   18     238      328    |
       S|                          |
```

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,072	1,178
E-W Road:	1,192	1,570

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,072	9.33	0.26	0.22	0.17
East-West Road	7.6	5.7	4.0	1,192	9.33	0.85	0.63	0.45
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,178	9.33	0.29	0.24	0.19
East-West Road	7.6	5.7	4.0	1,570	9.33	1.11	0.84	0.59

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	7.2	4.6
50 Feet from Roadway Edge	6.7	6.9	4.4
100 Feet from Roadway Edge	6.4	6.6	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

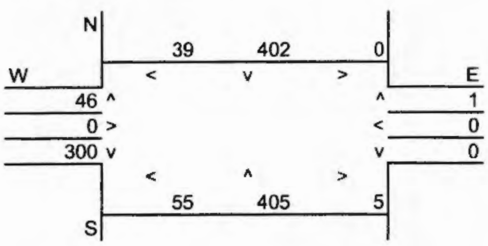
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

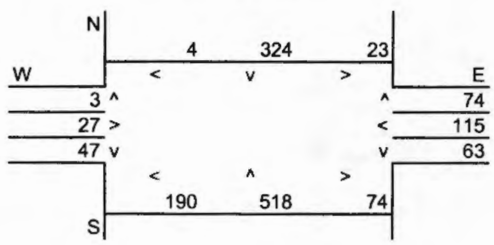
Intersection: Levering Ave./Veteran Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	20	20
East-West Roadway:	Levering Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,167	N-S Road:	1,216
E-W Road:	440	E-W Road:	386

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	1,167	9.33	0.83	0.62	0.44
East-West Road	2.7	2.2	1.7	440	9.33	0.11	0.09	0.07
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	1,216	9.33	0.86	0.65	0.45
East-West Road	2.7	2.2	1.7	386	9.33	0.10	0.08	0.06

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.7	6.8	4.3
50 Feet from Roadway Edge	6.5	6.5	4.1
100 Feet from Roadway Edge	6.3	6.3	4.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

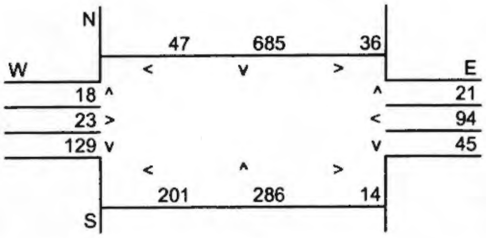
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

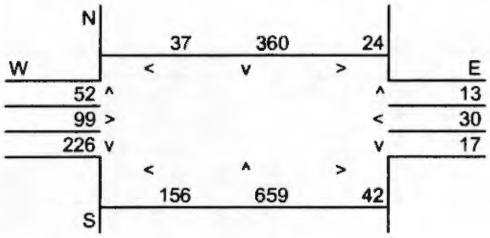
Intersection: Wyton Dr./Hilgard Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	4	20	20
East-West Roadway:	Wyton Dr.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,360	1,460
E-W Road:	512	600

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,360	9.33	0.89	0.69	0.48
East-West Road	2.7	2.2	1.7	512	9.33	0.13	0.11	0.08
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,460	9.33	0.95	0.74	0.52
East-West Road	2.7	2.2	1.7	600	9.33	0.15	0.12	0.10

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.8	6.9	4.4
50 Feet from Roadway Edge	6.6	6.7	4.2
100 Feet from Roadway Edge	6.4	6.4	4.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

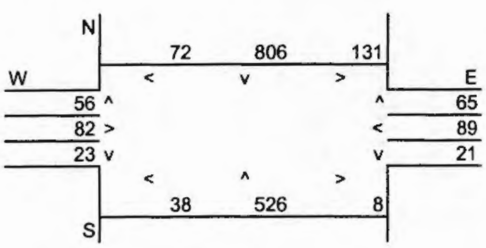
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

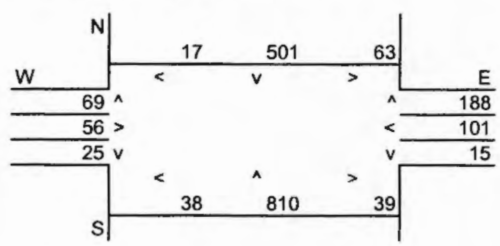
Intersection: Wyton Dr. - Comstock Ave./Beverly Glen Blvd.
Analysis Condition: Exisiting Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd.	At Grade	4	20	20
East-West Roadway:	Wyton Dr. - Comstock Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,656	1,648
E-W Road:	396	462

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 Reference CO Concentrations 50 Feet	A_3 Reference CO Concentrations 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	Estimated CO Concentrations 50 Feet	Estimated CO Concentrations 100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,656	9.33	1.08	0.83	0.59
East-West Road	2.7	2.2	1.7	396	9.33	0.10	0.08	0.06
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,648	9.33	1.08	0.83	0.58
East-West Road	2.7	2.2	1.7	462	9.33	0.12	0.09	0.07

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.0	7.0	4.4
50 Feet from Roadway Edge	6.7	6.7	4.2
100 Feet from Roadway Edge	6.5	6.5	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

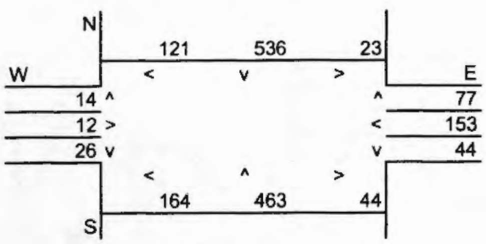
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

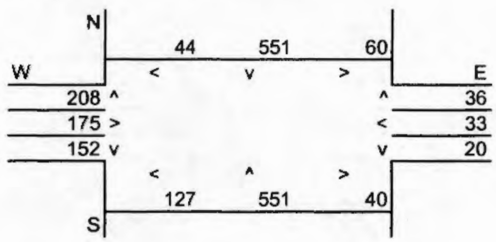
Intersection: Westholme Ave./Hilgard Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	4	20	20
East-West Roadway:	Westholme Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,277	N-S Road:	1,450
E-W Road:	490	E-W Road:	739

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,277	9.33	0.83	0.64	0.45
East-West Road	2.7	2.2	1.7	490	9.33	0.12	0.10	0.08
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,450	9.33	0.95	0.73	0.51
East-West Road	2.7	2.2	1.7	739	9.33	0.19	0.15	0.12

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.8	6.9	4.4
50 Feet from Roadway Edge	6.5	6.7	4.2
100 Feet from Roadway Edge	6.3	6.4	4.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Manning Ave./Hilgard Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	4	20	20
East-West Roadway:	Manning Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

	N			
	0	652	10	
W	<	v	>	E
0 ^			^	70
0 >			<	0
0 v			v	4
	<	^	>	
	0	783	14	
S				

P.M. Peak Hour Traffic Volumes

	N			
	0	958	98	
W	<	v	>	E
0 ^			^	53
0 >			<	0
0 v			v	11
	<	^	>	
	0	778	25	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,515	1,887
E-W Road:	98	187

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,515	9.33	0.99	0.76	0.54
East-West Road	2.7	2.2	1.7	98	9.33	0.02	0.02	0.02
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,887	9.33	1.23	0.95	0.67
East-West Road	2.7	2.2	1.7	187	9.33	0.05	0.04	0.03

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.8	7.1	4.5
50 Feet from Roadway Edge	6.6	6.8	4.3
100 Feet from Roadway Edge	6.4	6.5	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

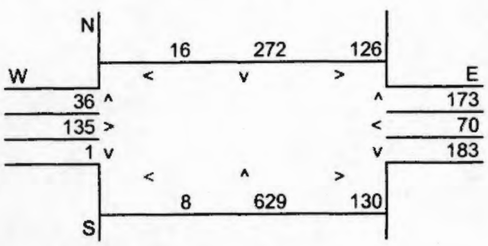
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

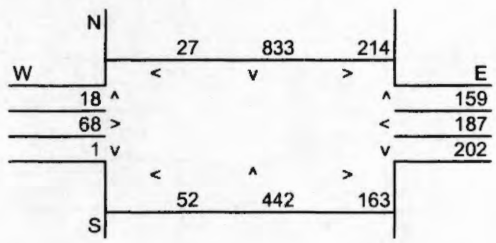
Intersection: Le Conte Ave./Gayley Ave
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave.	At Grade	4	20	20
East-West Roadway:	Le Conte Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,252	N-S Road:	1,693
E-W Road:	817	E-W Road:	993

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,252	9.33	0.82	0.63	0.44
East-West Road	2.6	2.2	1.7	817	9.33	0.20	0.17	0.13
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,693	9.33	1.11	0.85	0.60
East-West Road	2.6	2.2	1.7	993	9.33	0.24	0.20	0.16

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.8	7.1	4.5
50 Feet from Roadway Edge	6.6	6.9	4.3
100 Feet from Roadway Edge	6.4	6.6	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Le Conte Ave./Westwood Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Ave.	At Grade	6	20	20
East-West Roadway:	Le Conte Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

	N			
	86	171	42	
W	<	v	>	E
122 ^				^ 84
311 >				< 295
45 v				v 109
	<	^	>	
	124	898	194	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	197	578	72	
W	<	v	>	E
146 ^				^ 35
288 >				< 362
127 v				v 166
	<	^	>	
	146	452	216	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,541	N-S Road:	1,685
E-W Road:	1,035	E-W Road:	1,266

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	6.1	4.9	3.5	1,541	9.33	0.88	0.70	0.50
East-West Road	2.6	2.2	1.7	1,035	9.33	0.25	0.21	0.16
P.M. Peak Traffic Hour								
North-South Road	6.1	4.9	3.5	1,685	9.33	0.96	0.77	0.55
East-West Road	2.6	2.2	1.7	1,266	9.33	0.31	0.26	0.20

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	7.1	4.5
50 Feet from Roadway Edge	6.7	6.8	4.3
100 Feet from Roadway Edge	6.5	6.6	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Le Conte Ave./Tiverton Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Tiverton Ave.	At Grade	2	20	20
East-West Roadway:	Le Conte Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

	N			
	186 <	55 v	28 >	
W				E
158 ^			^ 73	
301 >			< 351	
46 v			v 27	
	< 11	^ 151	> 31	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	191 <	89 v	80 >	
W				E
110 ^			^ 34	
460 >			< 397	
90 v			v 47	
	< 36	^ 49	> 51	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	651	553
E-W Road:	1,053	1,284

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	651	9.33	0.16	0.13	0.10
East-West Road	7.0	5.4	3.8	1,053	9.33	0.69	0.53	0.37
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	553	9.33	0.14	0.11	0.09
East-West Road	7.0	5.4	3.8	1,284	9.33	0.84	0.65	0.46

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.7	6.8	4.3
50 Feet from Roadway Edge	6.5	6.6	4.1
100 Feet from Roadway Edge	6.3	6.3	4.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

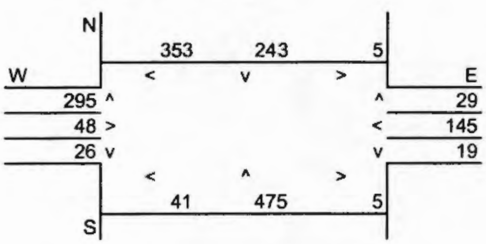
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

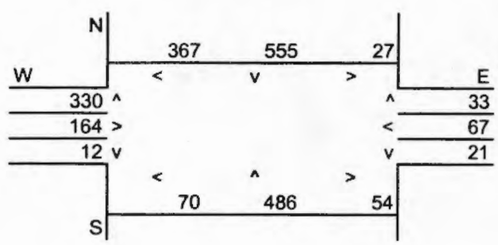
Intersection: Le Conte Ave./Hilgard Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	4	20	20
East-West Roadway:	Le Conte Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,400	N-S Road:	1,798
E-W Road:	908	E-W Road:	1,010

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,400	9.33	0.91	0.71	0.50
East-West Road	2.6	2.2	1.7	908	9.33	0.22	0.19	0.14
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,798	9.33	1.17	0.91	0.64
East-West Road	2.6	2.2	1.7	1,010	9.33	0.25	0.21	0.16

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	7.2	4.6
50 Feet from Roadway Edge	6.7	6.9	4.4
100 Feet from Roadway Edge	6.4	6.6	4.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Weyburn Ave./Gayley Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave.	At Grade	4	20	20
East-West Roadway:	Weyburn Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

	N	180 <	406 v	47 >	
W	267 ^			^ 45	E
	245 >			< 80	
	53 v			v 52	
	S	< 28	^ 838	> 108	

P.M. Peak Hour Traffic Volumes

	N	567 <	824 v	90 >	
W	167 ^			^ 88	E
	150 >			< 230	
	56 v			v 109	
	S	< 64	^ 587	> 139	

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,783	N-S Road:	2,323
E-W Road:	853	E-W Road:	1,234

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,783	9.33	1.16	0.90	0.63
East-West Road	2.7	2.2	1.7	853	9.33	0.21	0.18	0.14
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,323	9.33	1.52	1.17	0.82
East-West Road	2.7	2.2	1.7	1,234	9.33	0.31	0.25	0.20

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.2	7.6	4.9
50 Feet from Roadway Edge	6.9	7.2	4.6
100 Feet from Roadway Edge	6.6	6.8	4.3

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

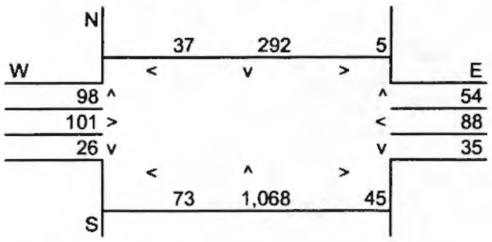
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

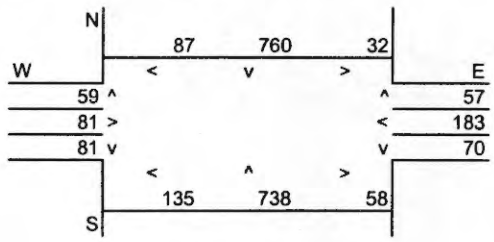
Intersection: Weyburn Ave./Westwood Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	20	20
East-West Roadway:	Weyburn Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,554	1,842
E-W Road:	423	626

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,554	9.33	1.02	0.78	0.55
East-West Road	2.7	2.2	1.7	423	9.33	0.11	0.09	0.07
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,842	9.33	1.20	0.93	0.65
East-West Road	2.7	2.2	1.7	626	9.33	0.16	0.13	0.10

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	7.2	4.6
50 Feet from Roadway Edge	6.7	6.9	4.3
100 Feet from Roadway Edge	6.4	6.6	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

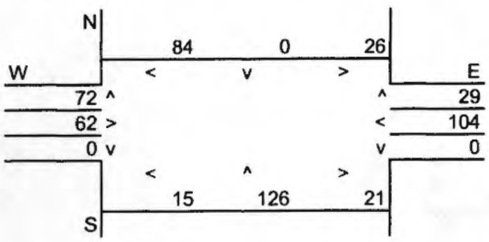
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

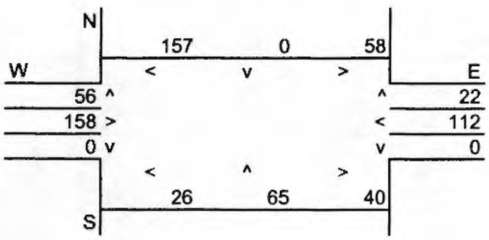
Intersection: Weyburn Ave./Tiverton Dr.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Tiverton Dr.	At Grade	2	20	20
East-West Roadway:	Weyburn Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	337	N-S Road:	358
E-W Road:	337	E-W Road:	509

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	337	9.33	0.24	0.18	0.13
East-West Road	2.7	2.2	1.7	337	9.33	0.08	0.07	0.05
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	358	9.33	0.09	0.07	0.06
East-West Road	7.6	5.7	4.0	509	9.33	0.36	0.27	0.19

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.1	6.3	3.9
50 Feet from Roadway Edge	6.0	6.1	3.8
100 Feet from Roadway Edge	6.0	6.0	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

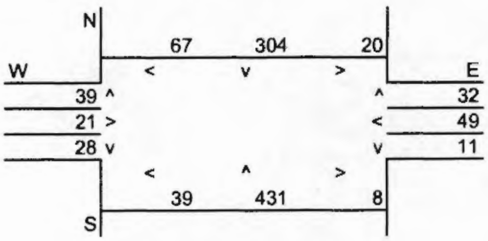
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

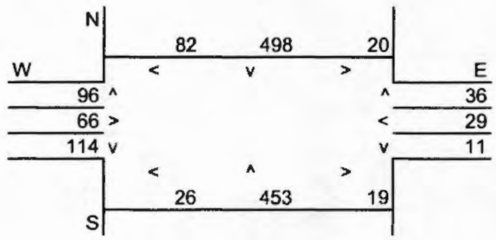
Intersection: Weyburn Ave./ Hilgard Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	2	20	20
East-West Roadway:	Weyburn Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	893	N-S Road:	1,185
E-W Road:	243	E-W Road:	413

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	893	9.33	0.63	0.48	0.33
East-West Road	2.7	2.2	1.7	243	9.33	0.06	0.05	0.04
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	1,185	9.33	0.84	0.63	0.44
East-West Road	2.7	2.2	1.7	413	9.33	0.10	0.08	0.07

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.5	6.7	4.3
50 Feet from Roadway Edge	6.3	6.5	4.1
100 Feet from Roadway Edge	6.2	6.3	4.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Kinross Ave./Westwood Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	20	20
East-West Roadway:	Kinross Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N
21 < 347 v 7 >
W | E
23 ^ | ^ 65
43 > | < 42
40 v | v 11
< 47 ^ 1,098 > 43
S

P.M. Peak Hour Traffic Volumes

N
98 < 766 v 103 >
W | E
67 ^ | ^ 111
138 > | < 98
178 v | v 27
< 101 ^ 761 > 105
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,586	1,938
E-W Road:	216	680

Roadway CO Contributions and Concentrations
Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,586	9.33	1.04	0.80	0.56
East-West Road	2.6	2.2	1.7	216	9.33	0.05	0.04	0.03
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,938	9.33	1.27	0.98	0.69
East-West Road	2.6	2.2	1.7	680	9.33	0.17	0.14	0.11

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations
Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	7.2	4.6
50 Feet from Roadway Edge	6.6	6.9	4.4
100 Feet from Roadway Edge	6.4	6.6	4.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Lindbrook Dr./ Westwood Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	20	20
East-West Roadway:	Lindbrook Dr.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N	23 < / 426 v / 7 >
W	26 ^ / 116 > / 42 v
E	36 ^ / 157 < / 119 v
S	7 < / 1,039 ^ / 246 >

P.M. Peak Hour Traffic Volumes

N	57 < / 831 v / 23 >
W	24 ^ / 151 > / 63 v
E	98 ^ / 319 < / 173 v
S	5 < / 908 ^ / 279 >

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,879	2,259
E-W Road:	681	1,043

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,879	9.33	1.23	0.95	0.67
East-West Road	2.6	2.2	1.7	681	9.33	0.17	0.14	0.11
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,259	9.33	1.48	1.14	0.80
East-West Road	2.6	2.2	1.7	1,043	9.33	0.25	0.21	0.17

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.2	7.5	4.8
50 Feet from Roadway Edge	6.9	7.2	4.5
100 Feet from Roadway Edge	6.6	6.8	4.3

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Lindbrook Dr./ Tiverton Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Tiverton Ave.	At Grade	2	20	20
East-West Roadway:	Lindbrook Dr.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N: 6 < 108 v 51 >
W: 69 ^ 327 > 14 v
E: 160 ^ 275 < 55 v
S: 91 < 244 ^ 664 >

P.M. Peak Hour Traffic Volumes

N: 76 < 281 v 97 >
W: 64 ^ 278 > 29 v
E: 59 ^ 351 < 285 v
S: 31 < 213 ^ 187 >

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,176	1,026
E-W Road:	1,532	1,257

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,176	9.33	0.30	0.24	0.19
East-West Road	7.0	5.4	3.8	1,532	9.33	1.00	0.77	0.54
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,026	9.33	0.26	0.21	0.16
East-West Road	7.0	5.4	3.8	1,257	9.33	0.82	0.63	0.45

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.1	6.9	4.5
50 Feet from Roadway Edge	6.8	6.6	4.3
100 Feet from Roadway Edge	6.5	6.4	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

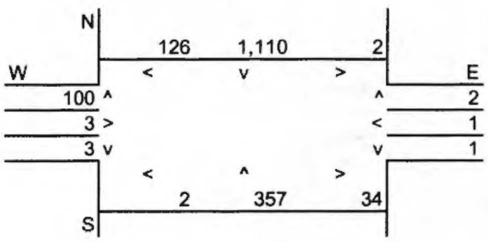
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

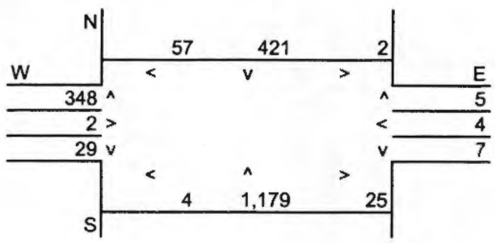
Intersection: Constitution Ave./Sepulveda Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	20	20
East-West Roadway:	Constitution Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,697	N-S Road:	2,012
E-W Road:	235	E-W Road:	444

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,697	9.33	1.11	0.86	0.60
East-West Road	2.7	2.2	1.7	235	9.33	0.06	0.05	0.04
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,012	9.33	1.31	1.01	0.71
East-West Road	2.7	2.2	1.7	444	9.33	0.11	0.09	0.07

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.0	7.2	4.6
50 Feet from Roadway Edge	6.7	6.9	4.4
100 Feet from Roadway Edge	6.4	6.6	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Wilshire Blvd./San Vicente Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	San Vicente Blvd.	At Grade	4	10	10
East-West Roadway:	Wilshire Blvd.	At Grade	8	10	10

A.M. Peak Hour Traffic Volumes

	N			E
	39 <	264 v	1,339 >	
W 54 ^				^ 1,159
1,426 >				< 2,471
52 v				v 75
	< 97	^ 222	> 125	
	S			

P.M. Peak Hour Traffic Volumes

	N			E
	59 <	363 v	1,613 >	
W 36 ^				^ 1,271
1,506 >				< 2,561
38 v				v 142
	< 95	^ 370	> 200	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	3,077	3,712
E-W Road:	6,595	7,293

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	3,077	18.24	1.46	1.24	0.95
East-West Road	5.7	4.6	3.4	6,595	18.24	6.86	5.53	4.09
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	3,712	18.24	1.76	1.49	1.15
East-West Road	5.7	4.6	3.4	7,293	18.24	7.58	6.12	4.52

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	14.1	15.1	10.1
50 Feet from Roadway Edge	12.6	13.4	8.9
100 Feet from Roadway Edge	10.8	11.5	7.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Wilshire Blvd./Sepulveda Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	10	10
East-West Roadway:	Wilshire Blvd.	At Grade	8	10	10

A.M. Peak Hour Traffic Volumes

N				
	244	584	213	
W	<	v	>	E
68 ^				^ 56
3,088 >				< 3,087
237 v				v 126
	<	^	>	
	234	294	325	
S				

P.M. Peak Hour Traffic Volumes

N				
	93	305	96	
W	<	v	>	E
116 ^				^ 295
3,029 >				< 3,577
230 v				v 373
	<	^	>	
	170	676	212	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,800	1,966
E-W Road:	6,958	7,582

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,800	18.24	0.85	0.72	0.56
East-West Road	5.7	4.6	3.4	6,958	18.24	7.24	5.84	4.32
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,966	18.24	0.93	0.79	0.61
East-West Road	5.7	4.6	3.4	7,582	18.24	7.88	6.36	4.70

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	13.9	14.6	9.8
50 Feet from Roadway Edge	12.4	13.0	8.6
100 Feet from Roadway Edge	10.7	11.1	7.3

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Wilshire Blvd./Veteran Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	15	10
East-West Roadway:	Wilshire Blvd.	At Grade	8	15	10

A.M. Peak Hour Traffic Volumes

	N			
	426 <	233 v	106 >	
W 480 ^				E 43 ^
W 3,522 >				E 2,257 <
W 218 v				E 79 v
	179 <	459 ^	91 >	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	897 <	392 v	68 >	
W 308 ^				E 89 ^
W 2,125 >				E 3,055 <
W 103 v				E 90 v
	204 <	751 ^	183 >	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,747	2,505
E-W Road:	7,082	6,692

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,747	12.31	0.58	0.47	0.37
East-West Road	5.7	4.6	3.4	7,082	12.31	4.97	4.01	2.96
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	2,505	18.24	1.23	1.01	0.78
East-West Road	5.7	4.6	3.4	6,692	18.24	6.96	5.62	4.15

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	11.3	14.0	9.3
50 Feet from Roadway Edge	10.3	12.4	8.2
100 Feet from Roadway Edge	9.1	10.7	7.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection:	Wilshire Blvd./Gayley Ave.
Analysis Condition:	Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave.	At Grade	4	20	20
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	20

A.M. Peak Hour Traffic Volumes

	N				
W		328 <	138 v	70 >	E
463 ^					^ 169
2,953 >					< 2,105
219 v					v 70
		< 50	^ 296	> 38	
	S				

P.M. Peak Hour Traffic Volumes

	N				
W		800 <	361 v	119 >	E
310 ^					^ 153
2,135 >					< 2,265
106 v					v 31
		< 84	^ 366	> 135	
	S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,464	N-S Road:	2,109
E-W Road:	6,118	E-W Road:	5,700

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 Reference CO Concentrations 50 Feet	A_3 Reference CO Concentrations 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	Estimated CO Concentrations 50 Feet	Estimated CO Concentrations 100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,464	9.33	0.36	0.30	0.23
East-West Road	5.7	4.6	3.4	6,118	9.33	3.26	2.63	1.94
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,109	9.33	0.51	0.43	0.33
East-West Road	5.7	4.6	3.4	5,700	9.33	3.03	2.45	1.81

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.4	9.3	6.1
50 Feet from Roadway Edge	8.7	8.7	5.6
100 Feet from Roadway Edge	8.0	7.9	5.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

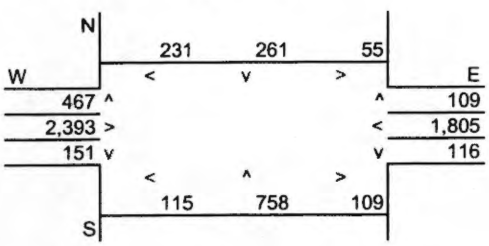
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

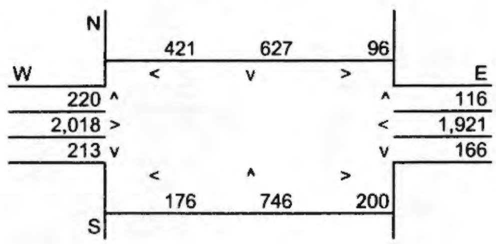
Intersection: Wilshire Blvd./Westwood Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	20	20
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,881	2,226
E-W Road:	5,162	4,969

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,881	9.33	0.46	0.39	0.30
East-West Road	5.7	4.6	3.4	5,162	9.33	2.75	2.22	1.64
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,226	9.33	0.54	0.46	0.35
East-West Road	5.7	4.6	3.4	4,969	9.33	2.64	2.13	1.58

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.0	9.0	5.8
50 Feet from Roadway Edge	8.4	8.4	5.4
100 Feet from Roadway Edge	7.7	7.7	5.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Wilshire Blvd./Glendon Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Glendon Ave.	At Grade	4	20	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	15

A.M. Peak Hour Traffic Volumes

N
192 < 493 v 129 >
W
273 ^
2,049 >
264 v
E
^ 185
< 1,975
v 61
< 14 ^ 131 > 18
S

P.M. Peak Hour Traffic Volumes

N
341 < 171 v 190 >
W
200 ^
2,068 >
59 v
E
^ 177
< 1,698
v 233
< 174 ^ 108 > 98
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,403	1,187
E-W Road:	4,767	4,540

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,403	9.33	0.34	0.29	0.22
East-West Road	5.7	4.6	3.4	4,767	9.33	2.54	2.05	1.51
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,187	12.31	0.38	0.32	0.25
East-West Road	5.7	4.6	3.4	4,540	12.31	3.18	2.57	1.90

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.7	9.4	6.1
50 Feet from Roadway Edge	8.1	8.7	5.6
100 Feet from Roadway Edge	7.5	7.9	5.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

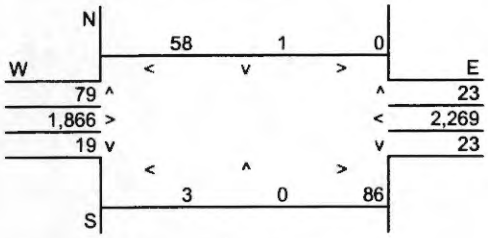
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

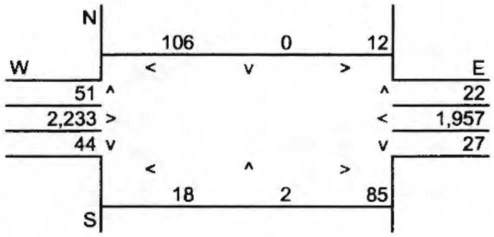
Intersection: Wilshire Blvd./Malcolm Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Malcolm Ave.	At Grade	2	20	20
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	161	193
E-W Road:	4,294	4,409

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	161	9.33	0.04	0.03	0.03
East-West Road	5.7	4.6	3.4	4,294	9.33	2.28	1.84	1.36
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	193	9.33	0.05	0.04	0.03
East-West Road	5.7	4.6	3.4	4,409	9.33	2.35	1.89	1.40

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.1	8.2	5.3
50 Feet from Roadway Edge	7.7	7.7	5.0
100 Feet from Roadway Edge	7.2	7.2	4.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Wilshire Blvd./Westholme Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westholme Ave.	At Grade	2	15	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	15	15

A.M. Peak Hour Traffic Volumes

N	33 <	57 v	54 >
W	45 ^		^ 118
	2,135 >		< 2,464 E
	71 v		v 36
S	< 54	^ 179	> 66

P.M. Peak Hour Traffic Volumes

N	112 <	232 v	26 >
W	29 ^		^ 30
	2,387 >		< 1,974 E
	55 v		v 46
S	< 35	^ 59	> 44

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	486	488
E-W Road:	4,873	4,592

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	486	12.31	0.16	0.13	0.10
East-West Road	5.7	4.6	3.4	4,873	12.31	3.42	2.76	2.04
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	488	12.31	0.16	0.13	0.10
East-West Road	5.7	4.6	3.4	4,592	12.31	3.22	2.60	1.92

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.4	9.2	6.1
50 Feet from Roadway Edge	8.7	8.5	5.6
100 Feet from Roadway Edge	7.9	7.8	5.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

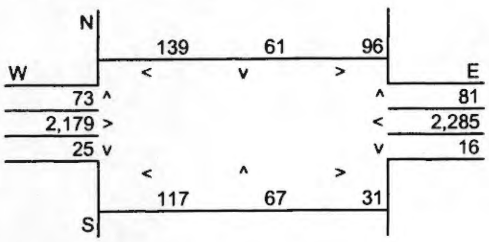
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

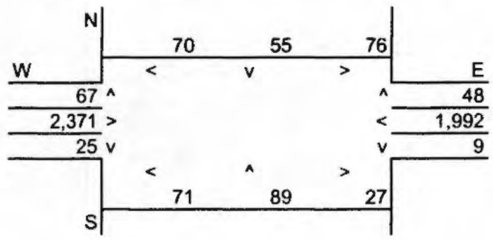
Intersection: Wilshire Blvd./Warner Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Warner Ave.	At Grade	2	20	20
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	517	405
E-W Road:	4,818	4,596

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	517	9.33	0.13	0.11	0.08
East-West Road	5.7	4.6	3.4	4,818	9.33	2.56	2.07	1.53
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	405	9.33	0.10	0.08	0.06
East-West Road	5.7	4.6	3.4	4,596	9.33	2.45	1.97	1.46

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.5	8.3	5.5
50 Feet from Roadway Edge	8.0	7.9	5.1
100 Feet from Roadway Edge	7.4	7.3	4.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Wilshire Blvd./Beverly Glen Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Bevlery Glen Blvd.	At Grade	4	15	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	15	15

A.M. Peak Hour Traffic Volumes

	<	v / ^	>
N	105	673 v	85
S	70	526 ^	99

	^	> / <	v
W	97	1,783 >	333
E	57	2,190 <	111

P.M. Peak Hour Traffic Volumes

	<	v / ^	>
N	71	668 v	69
S	85	745 ^	104

	^	> / <	v
W	140	2,000 >	321
E	22	1,976 <	101

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,812	N-S Road:	2,024
E-W Road:	4,578	E-W Road:	4,593

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,812	12.31	0.58	0.49	0.38
East-West Road	5.7	4.6	3.4	4,578	12.31	3.21	2.59	1.92
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,024	12.31	0.65	0.55	0.42
East-West Road	5.7	4.6	3.4	4,593	12.31	3.22	2.60	1.92

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.6	9.7	6.3
50 Feet from Roadway Edge	8.9	8.9	5.8
100 Feet from Roadway Edge	8.1	8.1	5.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Ohio Ave./Sawtelle Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sawtelle Blvd.	At Grade	4	15	15
East-West Roadway:	Ohio Ave.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes

Approach	<	v / >	>
N	11	69	40
S	109	285	120

Approach	^	> / <	v
W	56	833	66
E	96	496	66

P.M. Peak Hour Traffic Volumes

Approach	<	v / >	>
N	52	195	54
S	107	115	135

Approach	^	> / <	v
W	55	758	79
E	52	758	163

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	715	794
E-W Road:	1,651	1,920

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	715	12.31	0.23	0.19	0.15
East-West Road	7.6	5.7	4.0	1,651	12.31	1.54	1.16	0.81
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	794	12.31	0.25	0.21	0.17
East-West Road	7.6	5.7	4.0	1,920	12.31	1.80	1.35	0.95

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.6	7.8	5.0
50 Feet from Roadway Edge	7.2	7.4	4.7
100 Feet from Roadway Edge	6.8	6.9	4.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Ohio Ave./Sepulveda Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	10	15
East-West Roadway:	Ohio Ave.	At Grade	2	10	15

A.M. Peak Hour Traffic Volumes

Approach	<	v / > / ^	> / v
N	89	693	65
W (^, >, v)	175	810	84
E (^, <, v)	82	507	78
S	136	861	298

P.M. Peak Hour Traffic Volumes

Approach	<	v / > / ^	> / v
N	164	732	53
W (^, >, v)	151	690	142
E (^, <, v)	55	749	143
S	105	731	149

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,150	2,002
E-W Road:	1,840	2,001

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,150	18.24	2.75	2.12	1.49
East-West Road	2.7	2.2	1.7	1,840	18.24	0.91	0.74	0.57
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,002	12.31	1.72	1.33	0.94
East-West Road	2.7	2.2	1.7	2,001	12.31	0.66	0.54	0.42

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.5	8.2	6.2
50 Feet from Roadway Edge	8.7	7.7	5.6
100 Feet from Roadway Edge	7.9	7.2	5.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

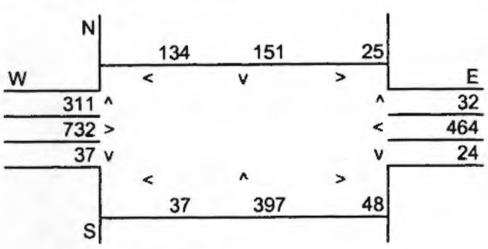
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

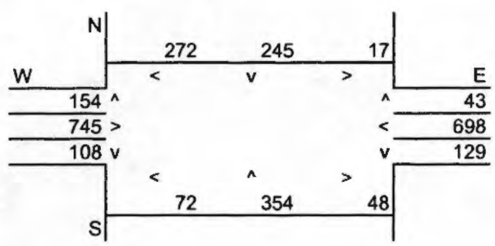
Intersection: Ohio Ave./ Veteran Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	15	15
East-West Roadway:	Ohio Ave.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,050	1,085
E-W Road:	1,715	2,049

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,050	12.31	0.35	0.28	0.22
East-West Road	7.6	5.7	4.0	1,715	12.31	1.60	1.20	0.84
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,085	12.31	0.36	0.29	0.23
East-West Road	7.6	5.7	4.0	2,049	12.31	1.92	1.44	1.01

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.8	8.1	5.2
50 Feet from Roadway Edge	7.3	7.5	4.8
100 Feet from Roadway Edge	6.9	7.0	4.5

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

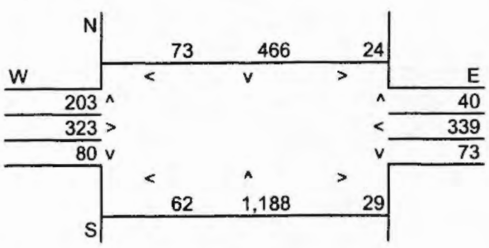
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

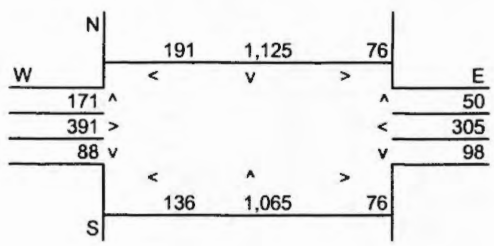
Intersection: Ohio Ave./ Westwood Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	6	20	20
East-West Roadway:	Ohio Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,994	N-S Road:	2,678
E-W Road:	1,080	E-W Road:	1,282

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	6.1	4.9	3.5	1,994	9.33	1.14	0.91	0.65
East-West Road	2.7	2.2	1.7	1,080	9.33	0.27	0.22	0.17
P.M. Peak Traffic Hour								
North-South Road	6.1	4.9	3.5	2,678	9.33	1.52	1.22	0.87
East-West Road	2.7	2.2	1.7	1,282	9.33	0.32	0.26	0.20

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.2	7.6	4.9
50 Feet from Roadway Edge	6.9	7.3	4.6
100 Feet from Roadway Edge	6.6	6.9	4.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

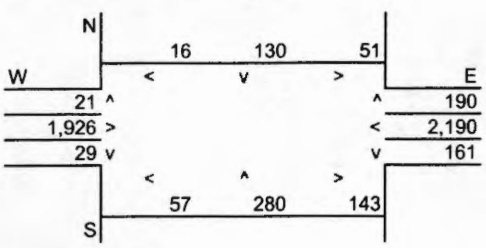
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

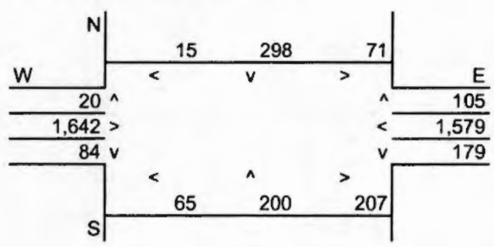
Intersection: Santa Monica Blvd./Sawtelle Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sawtelle Blvd.	At Grade	4	15	15
East-West Roadway:	Santa Monica Blvd.	At Grade	8	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	800	1,033
E-W Road:	4,661	3,783

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	800	12.31	0.26	0.22	0.17
East-West Road	5.7	4.6	3.4	4,661	12.31	3.27	2.64	1.95
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,033	12.31	0.33	0.28	0.22
East-West Road	5.7	4.6	3.4	3,783	12.31	2.65	2.14	1.58

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.3	8.8	6.1
50 Feet from Roadway Edge	8.7	8.2	5.6
100 Feet from Roadway Edge	7.9	7.6	5.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Santa Monica Blvd./Sepulveda Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	2	15	20
East-West Roadway:	Santa Monica Blvd.	At Grade	6	15	20

A.M. Peak Hour Traffic Volumes

		N			
		114 <	651 v	141 >	
W	100 ^				^ 72 E
	2,461 >				< 1,718
	289 v				v 82
		< 157	^ 1,034	> 193	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		157 <	1,267 v	137 >	
W	110 ^				^ 90 E
	2,325 >				< 1,583
	192 v				v 101
		< 119	^ 813	> 227	
		S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,406	2,719
E-W Road:	4,839	4,486

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	2,406	12.31	0.80	0.65	0.50
East-West Road	6.1	4.9	3.5	4,839	12.31	3.63	2.92	2.08
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	2,719	9.33	0.69	0.56	0.43
East-West Road	6.1	4.9	3.5	4,486	9.33	2.55	2.05	1.47

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	10.2	9.0	6.7
50 Feet from Roadway Edge	9.4	8.4	6.1
100 Feet from Roadway Edge	8.4	7.7	5.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

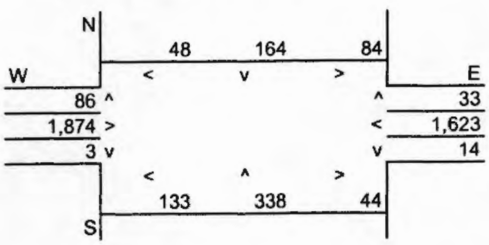
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

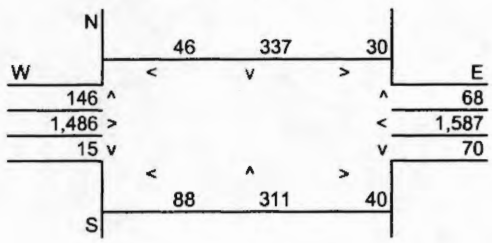
Intersection: Santa Monica Blvd./Veteran Ave.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	15	15
East-West Roadway:	Santa Monica Blvd.	At Grade	6	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	753	938
E-W Road:	3,767	3,368

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	753	12.31	0.25	0.20	0.16
East-West Road	6.1	4.9	3.5	3,767	12.31	2.83	2.27	1.62
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	938	12.31	0.31	0.25	0.20
East-West Road	6.1	4.9	3.5	3,368	12.31	2.53	2.03	1.45

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.9	8.6	5.8
50 Feet from Roadway Edge	8.3	8.1	5.3
100 Feet from Roadway Edge	7.6	7.4	4.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

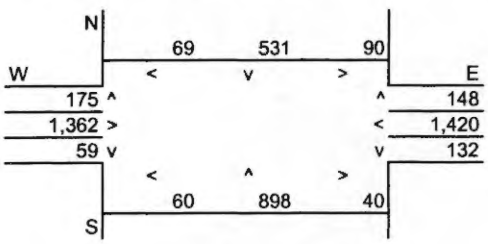
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

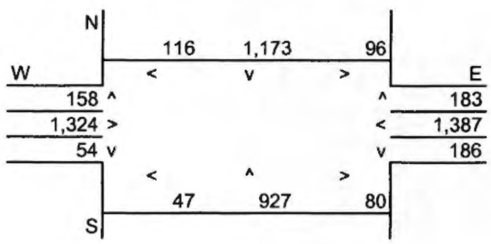
Intersection: Santa Monica Blvd./Westwood Blvd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	15	15
East-West Roadway:	Santa Monica Blvd.	At Grade	6	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,911	N-S Road:	2,653
E-W Road:	3,192	E-W Road:	3,256

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,911	12.31	0.61	0.52	0.40
East-West Road	6.1	4.9	3.5	3,192	12.31	2.40	1.92	1.37
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,653	12.31	0.85	0.72	0.56
East-West Road	6.1	4.9	3.5	3,256	12.31	2.44	1.96	1.40

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.8	9.1	5.9
50 Feet from Roadway Edge	8.2	8.5	5.5
100 Feet from Roadway Edge	7.6	7.8	5.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Roscomare Rd./Mulholland Dr.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Roscomare Rd.	At Grade	2	10	20
East-West Roadway:	Mulholland Dr.	At Grade	2	10	20

A.M. Peak Hour Traffic Volumes

N	0	0	0
	<	v	>
W	0 ^		^ 0
	620 >		< 448
	436 v		v 167
	<	^	>
S	121	0	90

P.M. Peak Hour Traffic Volumes

N	0	0	0
	<	v	>
W	0 ^		^ 0
	324 >		< 414
	87 v		v 41
	<	^	>
S	262	0	141

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	814	531
E-W Road:	1,625	1,087

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	814	18.24	0.40	0.33	0.25
East-West Road	7.6	5.7	4.0	1,625	18.24	2.25	1.69	1.19
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	531	9.33	0.13	0.11	0.08
East-West Road	7.6	5.7	4.0	1,087	9.33	0.77	0.58	0.41

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.5	6.7	5.5
50 Feet from Roadway Edge	7.8	6.5	5.0
100 Feet from Roadway Edge	7.2	6.3	4.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

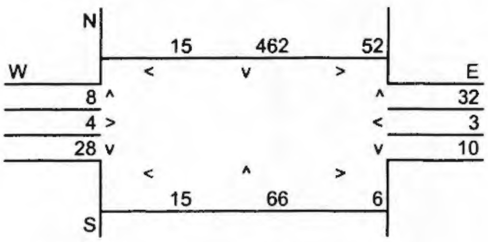
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

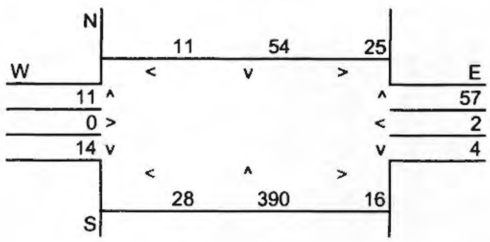
Intersection: Roscomare Rd./Stradella Rd. - Linda Flora Dr.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Roscomare Rd.	At Grade	2	20	20
East-West Roadway:	Stradella Rd. - Linda Flora Dr.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	635	N-S Road:	548
E-W Road:	107	E-W Road:	104

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 Reference CO Concentrations 50 Feet	A_3 Reference CO Concentrations 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	Estimated CO Concentrations 50 Feet	Estimated CO Concentrations 100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	635	9.33	0.45	0.34	0.24
East-West Road	2.7	2.2	1.7	107	9.33	0.03	0.02	0.02
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	548	9.33	0.39	0.29	0.20
East-West Road	2.7	2.2	1.7	104	9.33	0.03	0.02	0.02

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.3	6.2	3.9
50 Feet from Roadway Edge	6.2	6.1	3.9
100 Feet from Roadway Edge	6.1	6.0	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

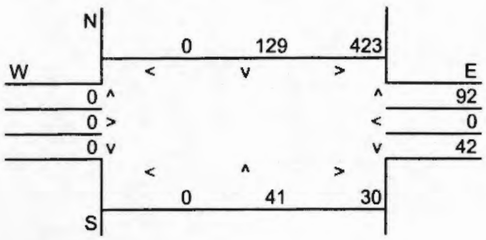
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

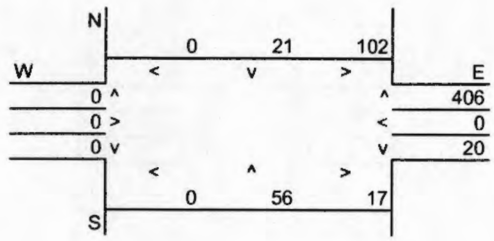
Intersection: Chalon Rd./Bellagio Rd.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Chalon Rd.	At Grade	2	20	20
East-West Roadway:	Bellagio Rd.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	685	585
E-W Road:	587	545

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	685	9.33	0.49	0.36	0.26
East-West Road	2.7	2.2	1.7	587	9.33	0.15	0.12	0.09
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	585	9.33	0.41	0.31	0.22
East-West Road	2.7	2.2	1.7	545	9.33	0.14	0.11	0.09

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.4	6.4	4.0
50 Feet from Roadway Edge	6.3	6.2	3.9
100 Feet from Roadway Edge	6.1	6.1	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Beverly Glen Blvd./Mulholland Dr.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd.	At Grade	4	10	10
East-West Roadway:	Mulholland Dr.	At Grade	2	10	10

A.M. Peak Hour Traffic Volumes

N	120	686	559		
W	<	v	>		E
70 ^				^	235
680 >				<	252
97 v				v	81
	<	^	>		
	107	285	41		
S					

P.M. Peak Hour Traffic Volumes

N	66	410	220		
W	<	v	>		E
77 ^				^	792
229 >				<	408
39 v				v	61
	<	^	>		
	31	868	74		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,955	N-S Road:	2,433
E-W Road:	1,848	E-W Road:	1,784

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,955	18.24	2.50	1.93	1.36
East-West Road	2.7	2.2	1.7	1,848	18.24	0.91	0.74	0.57
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,433	18.24	3.11	2.40	1.69
East-West Road	2.7	2.2	1.7	1,784	18.24	0.88	0.72	0.55

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.2	9.8	6.4
50 Feet from Roadway Edge	8.5	8.9	5.8
100 Feet from Roadway Edge	7.7	8.0	5.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	5.8
Background 8-hour CO Concentration (ppm):	3.6
Persistence Factor:	0.7
Analysis Year:	2002

Roadway Data

Intersection: Beverly Glen Blvd./Greendale Dr.
Analysis Condition: Exisiting Traffic Volume (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd.	At Grade	4	15	15
East-West Roadway:	Greendale Dr.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes

	N				
		0	976	141	
W		<	v	>	E
0 ^				^	55
0 >				<	0
0 v				v	101
		<	^	>	
		0	263	22	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		0	422	56	
W		<	v	>	E
0 ^				^	178
0 >				<	0
0 v				v	57
		<	^	>	
		0	1,011	17	
	S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,435	N-S Road:	1,667
E-W Road:	319	E-W Road:	308

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,435	12.31	1.24	0.95	0.67
East-West Road	2.7	2.2	1.7	319	12.31	0.11	0.09	0.07
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,667	12.31	1.44	1.11	0.78
East-West Road	2.7	2.2	1.7	308	12.31	0.10	0.08	0.06

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.1	7.3	4.7
50 Feet from Roadway Edge	6.8	7.0	4.4
100 Feet from Roadway Edge	6.5	6.6	4.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

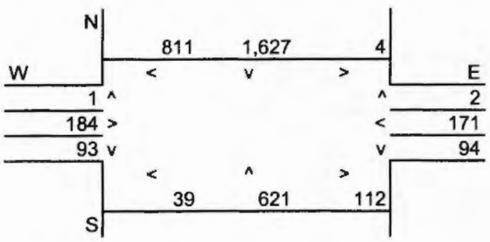
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

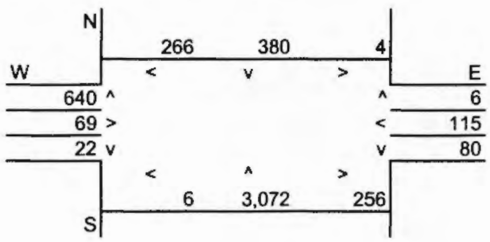
Intersection: Church Ln.-Ovada Ln./Sepulveda Blvd.
Analysis Condition: Future Plus Project (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	10	15
East-West Roadway:	Church Ln.-Ovada Ln.	At Grade	4	10	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	3,066	N-S Road:	4,368
E-W Road:	1,299	E-W Road:	1,118

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	3,066	10.78	2.31	1.78	1.26
East-West Road	2.6	2.2	1.7	1,299	10.78	0.36	0.31	0.24
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	4,368	7.30	2.23	1.72	1.21
East-West Road	2.6	2.2	1.7	1,118	7.30	0.21	0.18	0.14

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.1	6.8	4.7
50 Feet from Roadway Edge	6.5	6.3	4.3
100 Feet from Roadway Edge	5.9	5.8	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

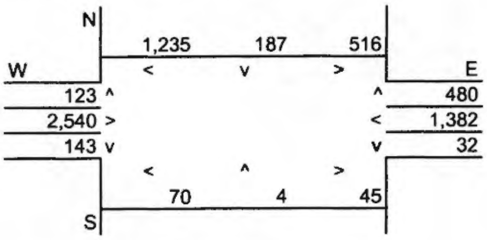
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

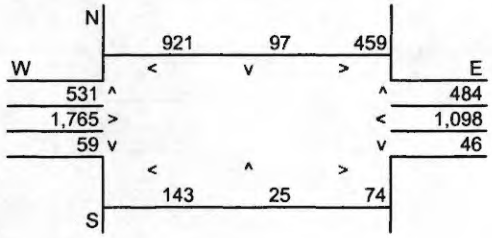
Intersection: Sunset Blvd./Church Ln.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Church Ln.	At Grade	4	15	15
East-West Roadway:	Sunset Blvd.	At Grade	4	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,545	2,517
E-W Road:	5,493	4,517

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,545	7.30	0.48	0.41	0.32
East-West Road	7.0	5.4	3.8	5,493	7.30	2.81	2.17	1.52
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,517	7.30	0.48	0.40	0.31
East-West Road	7.0	5.4	3.8	4,517	7.30	2.31	1.78	1.25

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.7	7.2	5.1
50 Feet from Roadway Edge	7.0	6.6	4.6
100 Feet from Roadway Edge	6.2	6.0	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

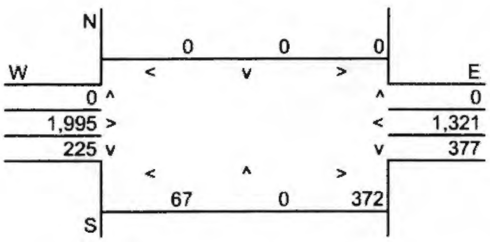
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

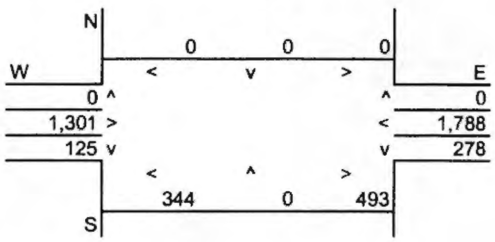
Intersection: Sunset Blvd./Veteran Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	15	15
East-West Roadway:	Sunset Blvd.	At Grade	4	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,041	1,240
E-W Road:	4,065	3,860

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,041	7.30	0.21	0.17	0.13
East-West Road	7.0	5.4	3.8	4,065	7.30	2.08	1.60	1.13
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,240	7.30	0.24	0.20	0.15
East-West Road	7.0	5.4	3.8	3,860	7.30	1.97	1.52	1.07

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.7	6.6	4.4
50 Feet from Roadway Edge	6.2	6.1	4.0
100 Feet from Roadway Edge	5.7	5.6	3.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Sunset Blvd./Bellagio Way
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Bellagio Way	At Grade	2	10	10
East-West Roadway:	Sunset Blvd.	At Grade	4	10	10

A.M. Peak Hour Traffic Volumes

		N			
		270	86	478	
W		<	v	>	E
255 ^					^ 29
1,909 >					< 1,370
116 v					v 65
		<	^	>	
		35	4	15	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		65	13	192	
W		<	v	>	E
362 ^					^ 16
1,247 >					< 1,820
95 v					v 162
		<	^	>	
		156	101	38	
		S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,122	749
E-W Road:	3,955	3,745

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,122	10.78	0.33	0.27	0.21
East-West Road	7.0	5.4	3.8	3,955	10.78	2.98	2.30	1.62
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	749	10.78	0.22	0.18	0.14
East-West Road	7.0	5.4	3.8	3,745	10.78	2.83	2.18	1.53

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.7	7.4	5.1
50 Feet from Roadway Edge	7.0	6.8	4.6
100 Feet from Roadway Edge	6.2	6.1	4.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

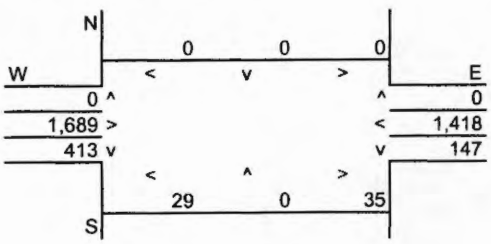
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

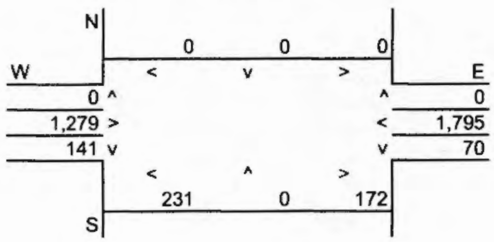
Intersection: Sunset Blvd./Westwood Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd	At Grade	4	20	20
East-West Roadway:	Sunset Blvd.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	624	N-S Road:	614
E-W Road:	3,549	E-W Road:	3,446

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	624	5.52	0.09	0.08	0.06
East-West Road	7.0	5.4	3.8	3,549	5.52	1.37	1.06	0.74
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	614	5.52	0.09	0.07	0.06
East-West Road	7.0	5.4	3.8	3,446	5.52	1.33	1.03	0.72

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.9	5.8	3.8
50 Feet from Roadway Edge	5.5	5.5	3.6
100 Feet from Roadway Edge	5.2	5.2	3.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Sunset Blvd./Stone Canyon Rd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Stone Canyon Rd.	At Grade	2	20	20
East-West Roadway:	Sunset Blvd.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

	N			
	64 <	0 v	0 >	
W				E
70 ^				^ 90
1,253 >				< 1,376
295 v				v 22
	< 86	^ 1	> 29	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	72 <	0 v	0 >	
W				E
52 ^				^ 31
1,400 >				< 1,583
54 v				v 17
	< 227	^ 0	> 71	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	433	369
E-W Road:	3,144	3,388

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	433	5.52	0.06	0.05	0.04
East-West Road	7.0	5.4	3.8	3,144	5.52	1.21	0.94	0.66
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	369	5.52	0.05	0.04	0.03
East-West Road	7.0	5.4	3.8	3,388	5.52	1.31	1.01	0.71

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.7	5.8	3.8
50 Feet from Roadway Edge	5.4	5.5	3.5
100 Feet from Roadway Edge	5.1	5.1	3.3

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

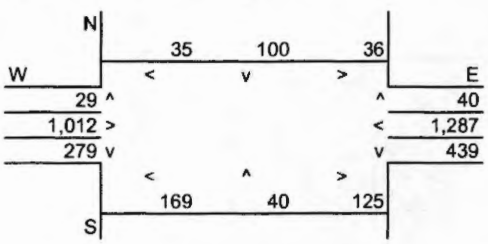
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

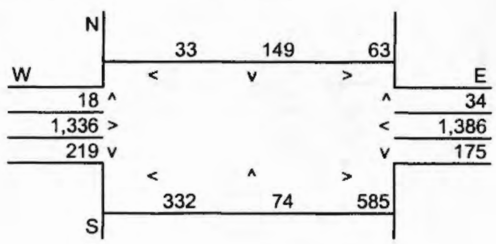
Intersection: Sunset Blvd.-Hilgard Ave./Copa De Oro Rd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Copa De Oro Rd.	At Grade	2	15	15
East-West Roadway:	Sunset Blvd.- Hilgard Ave.	At Grade	4	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,152	N-S Road:	1,534
E-W Road:	2,939	E-W Road:	3,579

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,152	7.30	0.23	0.19	0.14
East-West Road	7.0	5.4	3.8	2,939	7.30	1.50	1.16	0.82
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,534	7.30	0.30	0.25	0.19
East-West Road	7.0	5.4	3.8	3,579	7.30	1.83	1.41	0.99

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.1	6.5	4.3
50 Feet from Roadway Edge	5.7	6.1	4.0
100 Feet from Roadway Edge	5.4	5.6	3.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Sunset Blvd.- Beverly Glen Blvd./Bel Air Rd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd./ Bel Air Rd.	At Grade	4	10	10
East-West Roadway:	Sunset Blvd.	At Grade	4	10	10

A.M. Peak Hour Traffic Volumes

N

25 < | 98 v | 95 >

W

22 ^
999 >
198 v

E

85 ^
1,885 <
703 v

116 < | 86 ^ | 525 >

S

P.M. Peak Hour Traffic Volumes

N

33 < | 78 v | 97 >

W

20 ^
1,950 >
115 v

E

96 ^
1,401 <
380 v

238 < | 184 ^ | 739 >

S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,726	1,734
E-W Road:	4,292	4,663

Roadway CO Contributions and Concentrations
Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,726	10.78	0.48	0.41	0.32
East-West Road	7.0	5.4	3.8	4,292	10.78	3.24	2.50	1.76
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,734	10.78	0.49	0.41	0.32
East-West Road	7.0	5.4	3.8	4,663	10.78	3.52	2.71	1.91

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations
Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.1	8.4	5.6
50 Feet from Roadway Edge	7.3	7.5	5.0
100 Feet from Roadway Edge	6.5	6.6	4.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Sunset Blvd. (east IS) & Beverly Glen Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd.	At Grade	4	10	10
East-West Roadway:	Sunset Blvd (east IS)	At Grade	4	10	10

A.M. Peak Hour Traffic Volumes

Approach			
N	0 <	1,077 v	172 >
W	0 ^	0 >	0 v
E	^ 52	< 1,841	v 0
S	< 0	^ 619	> 1,219

P.M. Peak Hour Traffic Volumes

Approach			
N	0 <	734 v	110 >
W	0 ^	0 >	0 v
E	^ 129	< 0	v 1,214
S	< 0	^ 1,291	> 1,656

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,915	4,895
E-W Road:	3,284	3,109

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,915	10.78	0.82	0.69	0.53
East-West Road	7.0	5.4	3.8	3,284	10.78	2.48	1.91	1.35
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	4,895	10.78	3.69	2.85	2.01
East-West Road	2.6	2.2	1.7	3,109	10.78	0.87	0.74	0.57

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.7	9.0	6.0
50 Feet from Roadway Edge	7.0	8.0	5.3
100 Feet from Roadway Edge	6.3	7.0	4.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

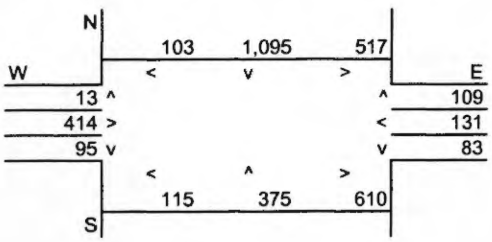
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

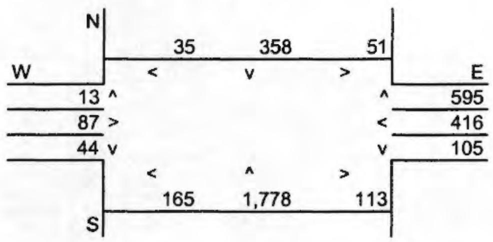
Intersection: Montana Ave./Sepulveda Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	10	15
East-West Roadway:	Montana Ave.	At Grade	2	10	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,373	2,830
E-W Road:	1,864	1,367

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,373	10.78	1.79	1.38	0.97
East-West Road	2.7	2.2	1.7	1,864	10.78	0.54	0.44	0.34
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,830	7.30	1.45	1.12	0.79
East-West Road	2.7	2.2	1.7	1,367	7.30	0.27	0.22	0.17

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.7	6.1	4.4
50 Feet from Roadway Edge	6.2	5.7	4.1
100 Feet from Roadway Edge	5.7	5.4	3.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Montana Ave./Levering Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Levering Ave.	At Grade	2	10	15
East-West Roadway:	Montana Ave.	At Grade	2	10	15

A.M. Peak Hour Traffic Volumes

N	0	0	0	
W	<	v	>	E
0 ^			^	0
920 >			<	205
388 v			v	3
	<	^	>	
S	50	0	2	

P.M. Peak Hour Traffic Volumes

N	0	0	0	
W	<	v	>	E
0 ^			^	0
282 >			<	802
78 v			v	1
	<	^	>	
S	294	0	6	

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	443	N-S Road:	379
E-W Road:	1,563	E-W Road:	1,456

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	443	10.78	0.13	0.11	0.08
East-West Road	7.6	5.7	4.0	1,563	10.78	1.28	0.96	0.67
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	379	7.30	0.07	0.06	0.05
East-West Road	7.6	5.7	4.0	1,456	7.30	0.81	0.61	0.43

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.8	5.3	3.8
50 Feet from Roadway Edge	5.5	5.1	3.5
100 Feet from Roadway Edge	5.2	4.9	3.3

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Montana Ave./ Gayley Ave. - Veteran Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave. - Veteran Ave.	At Grade	4	15	10
East-West Roadway:	Montana Ave.	At Grade	2	15	10

A.M. Peak Hour Traffic Volumes

	N				
		50	383	213	
W		<	v	>	E
111 ^					^ 41
727 >					< 140
33 v					v 33
		<	^	>	
		38	242	64	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		295	621	19	
W		<	v	>	E
91 ^					^ 31
363 >					< 529
37 v					v 92
		<	^	>	
		82	143	49	
	S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,040	N-S Road:	1,200
E-W Road:	1,218	E-W Road:	1,397

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,040	7.30	0.20	0.17	0.13
East-West Road	7.6	5.7	4.0	1,218	7.30	0.68	0.51	0.36
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,200	10.78	0.34	0.28	0.22
East-West Road	7.6	5.7	4.0	1,397	10.78	1.14	0.86	0.60

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.3	5.9	3.8
50 Feet from Roadway Edge	5.1	5.5	3.6
100 Feet from Roadway Edge	4.9	5.2	3.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Strathmore Pl./Gayley Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave.	At Grade	4	20	20
East-West Roadway:	Strathmore Pl.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

		N			
		9 <	342 v	566 >	
W	1 ^				^ 41 E
	121 >				< 21
	21 v				v 110
		< 7	^ 171	> 397	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		13 <	242 v	164 >	
W	12 ^				^ 451 E
	140 >				< 223
	22 v				v 401
		< 20	^ 266	> 364	
		S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,130	1,315
E-W Road:	1,256	1,743

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,130	5.52	0.16	0.14	0.11
East-West Road	7.6	5.7	4.0	1,256	5.52	0.53	0.40	0.28
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,315	5.52	0.19	0.16	0.12
East-West Road	7.6	5.7	4.0	1,743	5.52	0.73	0.55	0.38

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.1	5.3	3.4
50 Feet from Roadway Edge	4.9	5.1	3.3
100 Feet from Roadway Edge	4.8	4.9	3.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Levering Ave./Veteran Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	20	20
East-West Roadway:	Levering Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

N
47 488 0
W < v > E
56 ^ ^ 1
0 > < 0
363 v v 0
< ^ >
67 491 8
S

P.M. Peak Hour Traffic Volumes

N
6 394 28
W < v > E
4 ^ ^ 90
33 > < 140
57 v v 77
< ^ >
232 630 90
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,417	N-S Road:	1,480
E-W Road:	533	E-W Road:	472

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	1,417	5.52	0.59	0.45	0.31
East-West Road	2.7	2.2	1.7	533	5.52	0.08	0.06	0.05
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	1,480	5.52	0.62	0.47	0.33
East-West Road	2.7	2.2	1.7	472	5.52	0.07	0.06	0.04

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.1	5.1	3.3
50 Feet from Roadway Edge	4.9	4.9	3.2
100 Feet from Roadway Edge	4.8	4.8	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wyton Dr./Hilgard Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	4	20	20
East-West Roadway:	Wyton Dr.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

	N			
	52 <	760 v	40 >	
W				E
20 ^				^ 23
25 >				< 105
143 v				v 50
	226 <	315 ^	15 >	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	45 <	434 v	29 >	
W				E
63 ^				^ 16
120 >				< 36
274 v				v 20
	189 <	795 ^	51 >	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,509	N-S Road:	1,763
E-W Road:	571	E-W Road:	727

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,509	5.52	0.58	0.45	0.32
East-West Road	2.7	2.2	1.7	571	5.52	0.09	0.07	0.05
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,763	5.52	0.68	0.53	0.37
East-West Road	2.7	2.2	1.7	727	5.52	0.11	0.09	0.07

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.1	5.2	3.4
50 Feet from Roadway Edge	4.9	5.0	3.2
100 Feet from Roadway Edge	4.8	4.8	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wyton Dr. - Comstock Ave./Beverly Glen Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd.	At Grade	4	15	15
East-West Roadway:	Wyton Dr.- Comstock Ave.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes

N	76 <, 852 v, 138 >
W	59 ^, 87 >, 25 v
E	^ 69, < 94, v 22
S	< 43, ^ 558, > 8

P.M. Peak Hour Traffic Volumes

N	18 <, 531 v, 67 >
W	73 ^, 59 >, 27 v
E	^ 199, < 107, v 16
S	< 40, ^ 857, > 41

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,752	1,745
E-W Road:	418	489

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,752	7.30	0.90	0.69	0.49
East-West Road	2.7	2.2	1.7	418	7.30	0.08	0.07	0.05
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,745	7.30	0.89	0.69	0.48
East-West Road	2.7	2.2	1.7	489	7.30	0.10	0.08	0.06

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.4	5.4	3.5
50 Feet from Roadway Edge	5.2	5.2	3.3
100 Feet from Roadway Edge	4.9	4.9	3.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

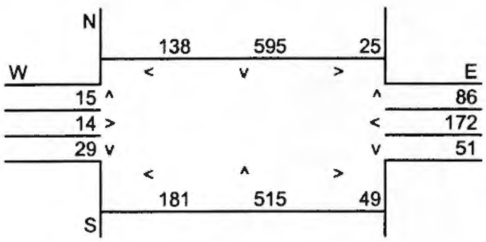
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

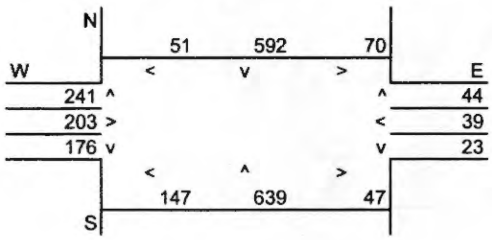
Intersection: Westholme Ave./Hilgard Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	4	20	20
East-West Roadway:	Westholme Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,420	1,637
E-W Road:	549	857

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,420	5.52	0.55	0.42	0.30
East-West Road	2.7	2.2	1.7	549	5.52	0.08	0.07	0.05
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,637	5.52	0.63	0.49	0.34
East-West Road	2.7	2.2	1.7	857	5.52	0.13	0.10	0.08

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.0	5.2	3.3
50 Feet from Roadway Edge	4.9	5.0	3.2
100 Feet from Roadway Edge	4.7	4.8	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Manning Ave./Hilgard Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	4	20	20
East-West Roadway:	Manning Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

N
0 689 12
W < v > E
0 ^ ^ 80
0 > < 0
0 v v 4
< ^ >
0 836 15
S

P.M. Peak Hour Traffic Volumes

N
0 1,026 107
W < v > E
0 ^ ^ 58
0 > < 0
0 v v 12
< ^ >
0 832 27
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,617	N-S Road:	2,023
E-W Road:	111	E-W Road:	204

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,617	5.52	0.62	0.48	0.34
East-West Road	2.7	2.2	1.7	111	5.52	0.02	0.01	0.01
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,023	5.52	0.78	0.60	0.42
East-West Road	2.7	2.2	1.7	204	5.52	0.03	0.02	0.02

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.0	5.2	3.4
50 Feet from Roadway Edge	4.9	5.0	3.2
100 Feet from Roadway Edge	4.7	4.8	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

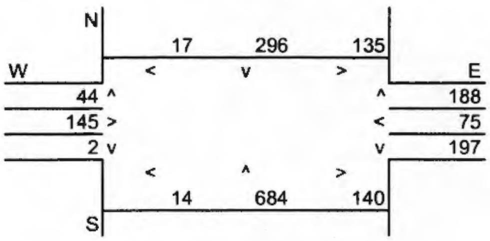
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

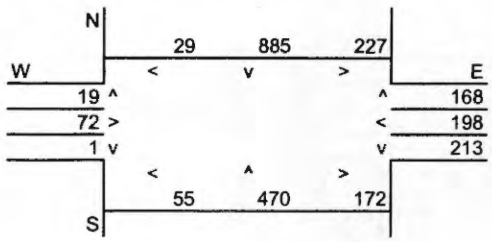
Intersection: Le Conte Ave./Gayley Ave
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

			No. of	Average Speed	
		Roadway Type	Lanes	A.M.	P.M.
North-South Roadway:	Gayley Ave.	At Grade	4	20	20
East-West Roadway:	Le Conte Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,364	N-S Road:	1,798
E-W Road:	880	E-W Road:	1,050

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,364	5.52	0.53	0.41	0.29
East-West Road	2.6	2.2	1.7	880	5.52	0.13	0.11	0.08
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,798	5.52	0.69	0.54	0.38
East-West Road	2.6	2.2	1.7	1,050	5.52	0.15	0.13	0.10

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.1	5.2	3.4
50 Feet from Roadway Edge	4.9	5.1	3.3
100 Feet from Roadway Edge	4.8	4.9	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Le Conte Ave./Westwood Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Ave.	At Grade	6	20	20
East-West Roadway:	Le Conte Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

	N: <	N: v	N: >	
W	92	190	45	E
136 ^				^ 94
664 >				< 317
48 v				v 117
S	< 134	^ 979	> 208	

P.M. Peak Hour Traffic Volumes

	N: <	N: v	N: >	
W	220	654	82	E
164 ^				^ 39
322 >				< 427
142 v				v 156
S	< 163	^ 510	> 242	

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,676	N-S Road:	1,867
E-W Road:	1,445	E-W Road:	1,438

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	6.1	4.9	3.5	1,676	5.52	0.56	0.45	0.32
East-West Road	2.6	2.2	1.7	1,445	5.52	0.21	0.18	0.14
P.M. Peak Traffic Hour								
North-South Road	6.1	4.9	3.5	1,867	5.52	0.63	0.50	0.36
East-West Road	2.6	2.2	1.7	1,438	5.52	0.21	0.17	0.13

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.2	5.2	3.4
50 Feet from Roadway Edge	5.0	5.1	3.3
100 Feet from Roadway Edge	4.9	4.9	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

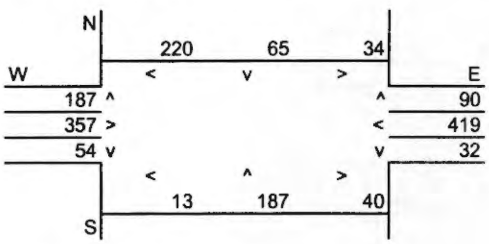
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

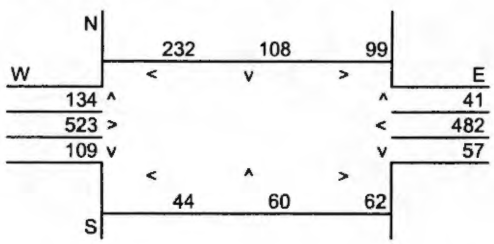
Intersection: Le Conte Ave./Tiverton Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Tiverton Ave.	At Grade	2	20	20
East-West Roadway:	Le Conte Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	783	N-S Road:	674
E-W Road:	1,250	E-W Road:	1,524

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	783	5.52	0.12	0.10	0.07
East-West Road	7.0	5.4	3.8	1,250	5.52	0.48	0.37	0.26
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	674	5.52	0.10	0.08	0.06
East-West Road	7.0	5.4	3.8	1,524	5.52	0.59	0.45	0.32

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.0	5.1	3.3
50 Feet from Roadway Edge	4.9	4.9	3.2
100 Feet from Roadway Edge	4.7	4.8	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

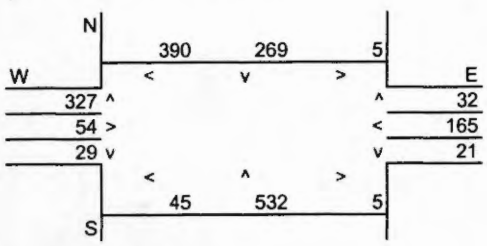
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

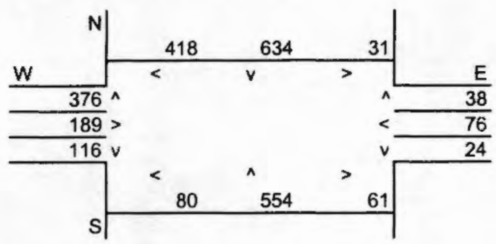
Intersection: Le Conte Ave./Hilgard Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	4	20	20
East-West Roadway:	Le Conte Ave.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,555	N-S Road:	2,051
E-W Road:	1,010	E-W Road:	1,255

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,555	5.52	0.60	0.46	0.33
East-West Road	2.6	2.2	1.7	1,010	5.52	0.14	0.12	0.09
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,051	5.52	0.79	0.61	0.43
East-West Road	2.6	2.2	1.7	1,255	5.52	0.18	0.15	0.12

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.1	5.4	3.5
50 Feet from Roadway Edge	5.0	5.2	3.3
100 Feet from Roadway Edge	4.8	4.9	3.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Weybum Ave./Gayley Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave.	At Grade	4	20	20
East-West Roadway:	Weyburn Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

N
114 507 49
< v >
W E
131 ^ ^ 47
213 > < 59
56 v v 55
< ^ >
29 728 115
S

P.M. Peak Hour Traffic Volumes

N
200 1,267 95
< v >
W E
98 ^ ^ 93
134 > < 192
59 v v 116
< ^ >
67 698 148
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,576	N-S Road:	2,451
E-W Road:	602	E-W Road:	778

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,576	5.52	0.61	0.47	0.33
East-West Road	2.7	2.2	1.7	602	5.52	0.09	0.07	0.06
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,451	5.52	0.95	0.73	0.51
East-West Road	2.7	2.2	1.7	778	5.52	0.12	0.09	0.07

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.1	5.5	3.5
50 Feet from Roadway Edge	4.9	5.2	3.4
100 Feet from Roadway Edge	4.8	5.0	3.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Weyburn Ave./Westwood Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	20	20
East-West Roadway:	Weyburn Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

Approach	<	v	>	^
N	18	373	6	
E	103	41		64
W		30	118	65
S	86		53	1,318

P.M. Peak Hour Traffic Volumes

Approach	<	v	>	^
N	56	983	40	
E	223	85		70
W		99	99	47
S	165		71	928

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,901	2,331
E-W Road:	420	689

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,901	5.52	0.73	0.57	0.40
East-West Road	2.7	2.2	1.7	420	5.52	0.06	0.05	0.04
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,331	5.52	0.90	0.69	0.49
East-West Road	2.7	2.2	1.7	689	5.52	0.10	0.08	0.06

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.2	5.4	3.5
50 Feet from Roadway Edge	5.0	5.2	3.3
100 Feet from Roadway Edge	4.8	5.0	3.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

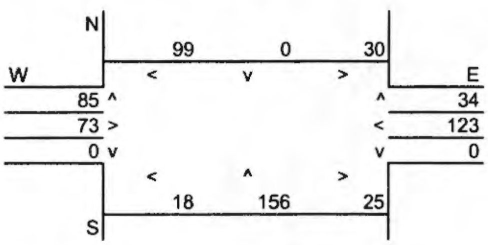
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

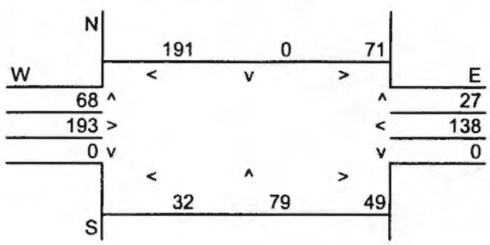
Intersection: Weyburn Ave./Tiverton Dr.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Tiverton Dr.	At Grade	2	20	20
East-West Roadway:	Weyburn Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	404	436
E-W Road:	398	622

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	404	5.52	0.17	0.13	0.09
East-West Road	2.7	2.2	1.7	398	5.52	0.06	0.05	0.04
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	436	5.52	0.06	0.05	0.04
East-West Road	7.6	5.7	4.0	622	5.52	0.26	0.20	0.14

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	4.6	4.7	3.0
50 Feet from Roadway Edge	4.6	4.6	3.0
100 Feet from Roadway Edge	4.5	4.6	2.9

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Weyburn Ave./ Hilgard Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Hilgard Ave.	At Grade	2	20	20
East-West Roadway:	Weyburn Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

```
        N|
         |   70     322     21|
W        |   <       v       >|          E
   41 ^                       ^   34
   22 >                       <   53
   29 v                       v   12
         |   <       ^       >|
         |   41     462      8|
        S|
```

P.M. Peak Hour Traffic Volumes

```
        N|
         |   98     597     24|
W        |   <       v       >|          E
  115 ^                       ^   45
   76 >                       <   35
  136 v                       v   13
         |   <       ^       >|
         |   31     542     23|
        S|
```

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	950	N-S Road:	1,421
E-W Road:	256	E-W Road:	491

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	950	5.52	0.40	0.30	0.21
East-West Road	2.7	2.2	1.7	256	5.52	0.04	0.03	0.02
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	1,421	5.52	0.60	0.45	0.31
East-West Road	2.7	2.2	1.7	491	5.52	0.07	0.06	0.05

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	4.8	5.1	3.3
50 Feet from Roadway Edge	4.7	4.9	3.2
100 Feet from Roadway Edge	4.6	4.8	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection:	Kinross Ave./Westwood Blvd.
Analysis Condition:	Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	20	10
East-West Roadway:	Kinross Ave.	At Grade	4	20	10

A.M. Peak Hour Traffic Volumes

		N			
		178 <	301 v	10 >	
W	331 ^				^ 81 E
	52 >				< 52
	49 v				v 13
		< 57	^ 1,098	> 52	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		421 <	691 v	126 >	
W	233 ^				^ 135 E
	168 >				< 119
	217 v				v 33
		< 123	^ 806	> 128	
		S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,999	2,412
E-W Road:	719	1,281

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,999	5.52	0.77	0.60	0.42
East-West Road	2.6	2.2	1.7	719	5.52	0.10	0.09	0.07
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,412	10.78	1.82	1.40	0.99
East-West Road	2.6	2.2	1.7	1,281	10.78	0.36	0.30	0.23

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.3	6.6	4.3
50 Feet from Roadway Edge	5.1	6.1	4.0
100 Feet from Roadway Edge	4.9	5.6	3.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection:	Lindbrook Dr./ Westwood Blvd.
Analysis Condition:	Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	20	20
East-West Roadway:	Lindbrook Dr.	At Grade	4	20	15

A.M. Peak Hour Traffic Volumes

	N			
	27 <	379 v	8 >	
W				E
33 ^				^ 42
137 >				< 185
49 v				v 140
	< 8	^ 979	> 296	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	63 <	658 v	25 >	
W				E
26 ^				^ 108
164 >				< 347
69 v				v 188
	< 5	^ 864	> 303	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,851	N-S Road:	2,087
E-W Road:	808	E-W Road:	1,135

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,851	5.52	0.72	0.55	0.39
East-West Road	2.6	2.2	1.7	808	5.52	0.12	0.10	0.08
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,087	5.52	0.81	0.62	0.44
East-West Road	2.6	2.2	1.7	1,135	7.30	0.22	0.18	0.14

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.2	5.4	3.5
50 Feet from Roadway Edge	5.0	5.2	3.4
100 Feet from Roadway Edge	4.9	5.0	3.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Lindbrook Dr./ Tiverton Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Tiverton Ave.	At Grade	2	20	20
East-West Roadway:	Lindbrook Dr.	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

Approach			
N	6 <	117 v	55 >
W	78 ^	355 >	15 v
E	172 ^	295 <	61 v
S	98 <	268 ^	718 >

P.M. Peak Hour Traffic Volumes

Approach			
N	82 <	304 v	105 >
W	69 ^	302 >	32 v
E	64 ^	381 <	311 v
S	35 <	231 ^	204 >

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,277	1,117
E-W Road:	1,656	1,367

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,277	5.52	0.19	0.16	0.12
East-West Road	7.0	5.4	3.8	1,656	5.52	0.64	0.49	0.35
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,117	5.52	0.17	0.14	0.10
East-West Road	7.0	5.4	3.8	1,367	5.52	0.53	0.41	0.29

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.2	5.1	3.4
50 Feet from Roadway Edge	5.0	4.9	3.3
100 Feet from Roadway Edge	4.9	4.8	3.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Constitution Ave./Sepulveda Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	20	20
East-West Roadway:	Constitution Ave.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

		N			
W	154 <	1,357 v	2 >		E
122 ^				^	2
4 >				<	1
4 v				v	1
	< 2	^ 435	> 41		
		S			

P.M. Peak Hour Traffic Volumes

		N			
W	70 <	513 v	2 >		E
424 ^				^	6
2 >				<	5
35 v				v	9
	< 5	^ 1,437	> 30		
		S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,072	N-S Road:	2,452
E-W Road:	287	E-W Road:	541

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,072	5.52	0.80	0.62	0.43
East-West Road	2.7	2.2	1.7	287	5.52	0.04	0.03	0.03
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,452	5.52	0.95	0.73	0.51
East-West Road	2.7	2.2	1.7	541	5.52	0.08	0.07	0.05

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.2	5.4	3.5
50 Feet from Roadway Edge	5.1	5.2	3.4
100 Feet from Roadway Edge	4.9	5.0	3.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wilshire Blvd./San Vicente Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	San Vicente Blvd.	At Grade	4	10	10
East-West Roadway:	Wilshire Blvd.	At Grade	8	10	10

A.M. Peak Hour Traffic Volumes

Approach			
N	43 <	291 v	1,469 >
W	59 ^	1,569 >	57 v
E	^ 1,269	< 2,706	v 82
S	< 106	^ 243	> 137

P.M. Peak Hour Traffic Volumes

Approach			
N	85 <	401 v	1,785 >
W	40 ^	1,667 >	42 v
E	^ 1,407	< 2,835	v 157
S	< 105	^ 409	> 221

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	3,374	4,127
E-W Road:	7,232	8,072

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	3,374	10.78	0.95	0.80	0.62
East-West Road	5.7	4.6	3.4	7,232	10.78	4.44	3.59	2.65
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	4,127	10.78	1.16	0.98	0.76
East-West Road	5.7	4.6	3.4	8,072	10.78	4.96	4.00	2.96

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.8	10.5	7.1
50 Feet from Roadway Edge	8.8	9.4	6.3
100 Feet from Roadway Edge	7.7	8.1	5.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wilshire Blvd./Sepulveda Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	10	10
East-West Roadway:	Wilshire Blvd.	At Grade	8	10	10

A.M. Peak Hour Traffic Volumes

N
267 < 639 v 237 >
W — E
74 ^ — ^ 61
3,392 > — < 3,383
259 v — v 138
< 256 ^ 322 > 357
S

P.M. Peak Hour Traffic Volumes

N
100 < 329 v 103 >
W — E
125 ^ — ^ 318
3,266 > — < 3,864
248 v — v 402
< 163 ^ 728 > 226
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,971	2,096
E-W Road:	7,631	8,179

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,971	10.78	0.55	0.47	0.36
East-West Road	5.7	4.6	3.4	7,631	10.78	4.69	3.78	2.80
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,096	10.78	0.59	0.50	0.38
East-West Road	5.7	4.6	3.4	8,179	10.78	5.03	4.06	3.00

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	9.6	10.0	6.7
50 Feet from Roadway Edge	8.7	9.0	6.0
100 Feet from Roadway Edge	7.6	7.8	5.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wilshire Blvd./Veteran Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	15	10
East-West Roadway:	Wilshire Blvd.	At Grade	8	15	10

A.M. Peak Hour Traffic Volumes

		N		
	637 <	254 v	116 >	
W				E
879 ^				^ 47
3,478 >				< 2,266
235 v				v 85
	< 193	^ 497	> 101	
		S		

P.M. Peak Hour Traffic Volumes

		N		
	1,296 <	417 v	72 >	
W				E
500 ^				^ 73
2,079 >				< 2,896
109 v				v 95
	< 216	^ 795	> 192	
		S		

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,430	3,153
E-W Road:	7,688	7,096

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	2,430	7.30	0.48	0.39	0.30
East-West Road	5.7	4.6	3.4	7,688	7.30	3.20	2.58	1.91
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	3,153	10.78	0.92	0.75	0.58
East-West Road	5.7	4.6	3.4	7,096	10.78	4.36	3.52	2.60

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.1	9.7	6.5
50 Feet from Roadway Edge	7.4	8.7	5.8
100 Feet from Roadway Edge	6.6	7.6	5.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wilshire Blvd./Gayley Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Gayley Ave.	At Grade	4	20	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	15

A.M. Peak Hour Traffic Volumes

		N		
	332 <	159 v	80 >	
W				E
152 ^				^ 197
3,155 >				< 2,297
252 v				v 80
	< 57	^ 345	> 46	
		S		

P.M. Peak Hour Traffic Volumes

		N		
	810 <	408 v	134 >	
W				E
306 ^				^ 172
2,277 >				< 2,301
119 v				v 35
	< 94	^ 435	> 152	
		S		

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,265	2,265
E-W Road:	6,245	5,907

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,265	5.52	0.18	0.15	0.12
East-West Road	5.7	4.6	3.4	6,245	5.52	1.96	1.59	1.17
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,265	7.30	0.43	0.36	0.28
East-West Road	5.7	4.6	3.4	5,907	7.30	2.46	1.98	1.47

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.5	7.3	4.8
50 Feet from Roadway Edge	6.1	6.7	4.4
100 Feet from Roadway Edge	5.7	6.1	4.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wilshire Blvd./Westwood Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	20	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	15

A.M. Peak Hour Traffic Volumes

N

118 <	276 v	59 >

W		E
248 ^		^ 115
2,521 >		< 1,899
159 v		v 122

< 121	^ 805	> 115

S

P.M. Peak Hour Traffic Volumes

N

197 <	665 v	101 >

W		E
109 ^		^ 123
2,134 >		< 2,032
225 v		v 175

< 186	^ 790	> 211

S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,621	2,252
E-W Road:	5,066	4,883

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,621	5.52	0.23	0.20	0.15
East-West Road	5.7	4.6	3.4	5,066	5.52	1.59	1.29	0.95
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,252	7.30	0.43	0.36	0.28
East-West Road	5.7	4.6	3.4	4,883	7.30	2.03	1.64	1.21

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.2	6.9	4.5
50 Feet from Roadway Edge	5.9	6.4	4.2
100 Feet from Roadway Edge	5.5	5.9	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

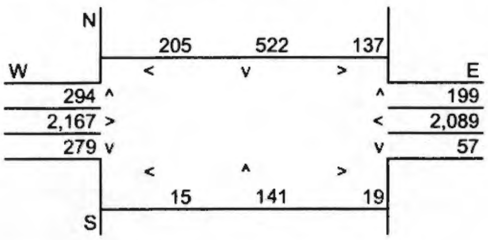
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

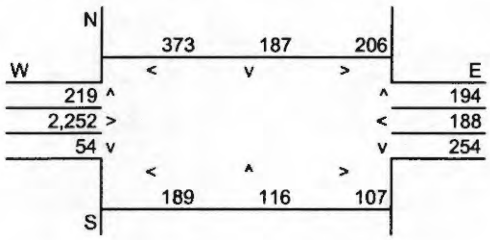
Intersection: Wilshire Blvd./Glendon Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Glendon Ave.	At Grade	4	20	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,498	N-S Road:	1,295
E-W Road:	5,049	E-W Road:	3,275

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,498	5.52	0.21	0.18	0.14
East-West Road	5.7	4.6	3.4	5,049	5.52	1.59	1.28	0.95
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,295	7.30	0.25	0.21	0.16
East-West Road	5.7	4.6	3.4	3,275	7.30	1.36	1.10	0.81

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.2	6.0	4.1
50 Feet from Roadway Edge	5.9	5.7	3.8
100 Feet from Roadway Edge	5.5	5.4	3.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

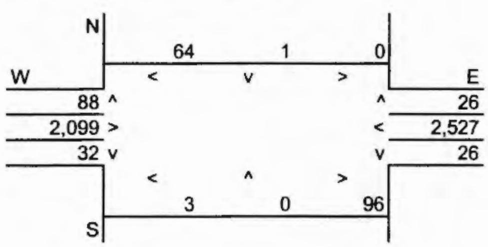
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

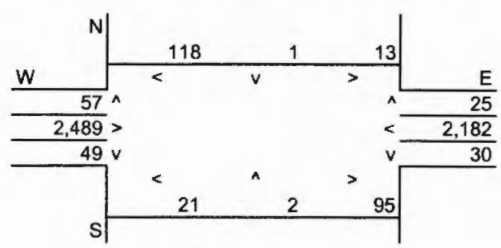
Intersection: Wilshire Blvd./Malcolm Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Malcolm Ave.	At Grade	2	20	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	20	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	179	216
E-W Road:	4,813	4,916

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 Reference CO Concentrations 50 Feet	A_3 Reference CO Concentrations 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	Estimated CO Concentrations 50 Feet	Estimated CO Concentrations 100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	179	5.52	0.03	0.02	0.02
East-West Road	5.7	4.6	3.4	4,813	5.52	1.51	1.22	0.90
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	216	7.30	0.04	0.03	0.03
East-West Road	5.7	4.6	3.4	4,916	7.30	2.05	1.65	1.22

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.9	6.5	4.3
50 Feet from Roadway Edge	5.6	6.1	4.0
100 Feet from Roadway Edge	5.3	5.6	3.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

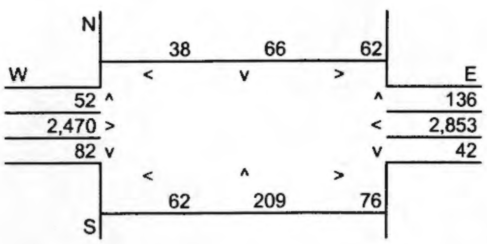
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

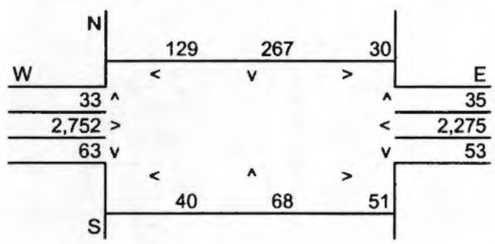
Intersection: Wilshire Blvd./Westholme Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westholme Ave.	At Grade	2	15	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	563	562
E-W Road:	5,639	5,292

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	563	7.30	0.11	0.09	0.07
East-West Road	5.7	4.6	3.4	5,639	7.30	2.35	1.89	1.40
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	562	7.30	0.11	0.09	0.07
East-West Road	5.7	4.6	3.4	5,292	7.30	2.20	1.78	1.31

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	6.7	4.5
50 Feet from Roadway Edge	6.4	6.3	4.2
100 Feet from Roadway Edge	5.9	5.8	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wilshire Blvd./Warner Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Warner Ave.	At Grade	2	15	20
East-West Roadway:	Wilshire Blvd.	At Grade	8	15	20

A.M. Peak Hour Traffic Volumes

	<	v	>
N	160	71	111
S	135	78 (^)	36

	^	> / <	v
W	84	2,510 >	29
E	96	2,635 <	16

P.M. Peak Hour Traffic Volumes

	<	v	>
N	82	66	89
S	83	81 (^)	32

	^	> / <	v
W	79	2,783 >	29
E	57	2,338 <	11

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	600	454
E-W Road:	5,553	5,394

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	600	7.30	0.12	0.10	0.07
East-West Road	5.7	4.6	3.4	5,553	7.30	2.31	1.86	1.38
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	454	5.52	0.07	0.06	0.04
East-West Road	5.7	4.6	3.4	5,394	5.52	1.70	1.37	1.01

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.8	6.2	4.5
50 Feet from Roadway Edge	6.4	5.8	4.2
100 Feet from Roadway Edge	5.9	5.5	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Wilshire Blvd./Beverly Glen Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Bevlery Glen Blvd.	At Grade	4	15	15
East-West Roadway:	Wilshire Blvd.	At Grade	8	15	15

A.M. Peak Hour Traffic Volumes

N	116 < ; 758 v ; 96 >
W	109 ^ ; 2,008 > ; 378 v
E	66 ^ ; 2,471 < ; 125 v
S	79 < ; 595 ^ ; 111 >

P.M. Peak Hour Traffic Volumes

N	81 < ; 764 v ; 80 >
W	150 ^ ; 2,287 > ; 367 v
E	63 ^ ; 2,258 < ; 115 v
S	98 < ; 852 ^ ; 119 >

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,046	2,315
E-W Road:	5,161	5,241

Roadway CO Contributions and Concentrations
Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,046	7.30	0.39	0.33	0.25
East-West Road	5.7	4.6	3.4	5,161	7.30	2.15	1.73	1.28
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,315	7.30	0.44	0.37	0.29
East-West Road	5.7	4.6	3.4	5,241	7.30	2.18	1.76	1.30

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations
Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	7.0	4.6
50 Feet from Roadway Edge	6.5	6.5	4.3
100 Feet from Roadway Edge	5.9	6.0	3.9

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Ohio Ave./Sawtelle Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sawtelle Blvd.	At Grade	4	15	15
East-West Roadway:	Ohio Ave.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes

N
12 < 73 v 44 >
W
60 ^
876 >
69 v
E
^ 101
< 521
v 69
< 115 ^ 300 > 126
S

P.M. Peak Hour Traffic Volumes

N
55 < 205 v 57 >
W
59 ^
797 >
83 v
E
^ 55
< 797
v 171
< 112 ^ 121 > 142
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	752	N-S Road:	834
E-W Road:	1,737	E-W Road:	2,019

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	752	7.30	0.14	0.12	0.09
East-West Road	7.6	5.7	4.0	1,737	7.30	0.96	0.72	0.51
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	834	7.30	0.16	0.13	0.10
East-West Road	7.6	5.7	4.0	2,019	7.30	1.12	0.84	0.59

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.5	5.7	3.7
50 Feet from Roadway Edge	5.2	5.4	3.5
100 Feet from Roadway Edge	5.0	5.1	3.3

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Ohio Ave./Sepulveda Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	4	10	10
East-West Roadway:	Ohio Ave.	At Grade	2	10	10

A.M. Peak Hour Traffic Volumes

N	102	795	72	
W	<	v	>	E
201 ^			^	94
933 >			<	583
96 v			v	89
	<	^	>	
	156	990	343	
S				

P.M. Peak Hour Traffic Volumes

N	177	792	57	
W	<	v	>	E
163 ^			^	59
747 >			<	811
154 v			v	155
	<	^	>	
	114	791	161	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,469	2,167
E-W Road:	2,114	2,166

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,469	10.78	1.86	1.44	1.01
East-West Road	2.7	2.2	1.7	2,114	10.78	0.62	0.50	0.39
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,167	10.78	1.64	1.26	0.89
East-West Road	2.7	2.2	1.7	2,166	10.78	0.63	0.51	0.40

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	6.7	4.5
50 Feet from Roadway Edge	6.3	6.2	4.2
100 Feet from Roadway Edge	5.8	5.7	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Ohio Ave./ Veteran Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	15	10
East-West Roadway:	Ohio Ave.	At Grade	2	15	10

A.M. Peak Hour Traffic Volumes

	N			
	148 <	167 v	27 >	
W				E
341 ^				^ 35
807 >				< 532
41 v				v 26
	< 41	^ 439	> 54	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	293 <	265 v	18 >	
W				E
166 ^				^ 46
803 >				< 752
116 v				v 140
	< 77	^ 361	> 52	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,157	1,149
E-W Road:	1,910	2,207

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,157	7.30	0.23	0.19	0.14
East-West Road	7.6	5.7	4.0	1,910	7.30	1.06	0.79	0.56
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,149	10.78	0.33	0.27	0.21
East-West Road	7.6	5.7	4.0	2,207	10.78	1.81	1.36	0.95

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.7	6.5	4.3
50 Feet from Roadway Edge	5.4	6.0	3.9
100 Feet from Roadway Edge	5.1	5.6	3.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

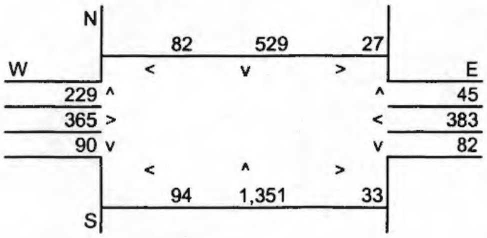
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

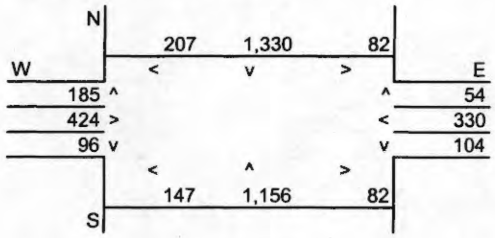
Intersection: Ohio Ave./ Westwood Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	15	15
East-West Roadway:	Ohio Ave.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,263	N-S Road:	3,014
E-W Road:	1,243	E-W Road:	1,389

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,263	7.30	1.16	0.89	0.63
East-West Road	2.7	2.2	1.7	1,243	7.30	0.24	0.20	0.15
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	3,014	7.30	1.54	1.19	0.84
East-West Road	2.7	2.2	1.7	1,389	7.30	0.27	0.22	0.17

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.8	6.2	4.1
50 Feet from Roadway Edge	5.5	5.8	3.8
100 Feet from Roadway Edge	5.2	5.4	3.5

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Santa Monica Blvd./Sawtelle Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sawtelle Blvd.	At Grade	4	15	15
East-West Roadway:	Santa Monica Blvd.	At Grade	8	15	15

A.M. Peak Hour Traffic Volumes

		N			
		17 <	136 v	54 >	
W	22 ^			^ 200	E
	2,026 >			< 2,303	
	30 v			v 169	
		60 <	294 ^	152 >	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		16 <	312 v	75 >	
W	21 ^			^ 110	E
	1,726 >			< 1,661	
	57 v			v 188	
		68 <	210 ^	218 >	
		S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	841	1,053
E-W Road:	4,904	3,978

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	841	7.30	0.16	0.14	0.10
East-West Road	5.7	4.6	3.4	4,904	7.30	2.04	1.65	1.22
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,053	7.30	0.20	0.17	0.13
East-West Road	5.7	4.6	3.4	3,978	7.30	1.66	1.34	0.99

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.6	6.3	4.3
50 Feet from Roadway Edge	6.2	5.9	4.0
100 Feet from Roadway Edge	5.7	5.5	3.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Santa Monica Blvd./Sepulveda Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Sepulveda Blvd.	At Grade	2	10	10
East-West Roadway:	Santa Monica Blvd.	At Grade	6	10	10

A.M. Peak Hour Traffic Volumes

N
130 < 742 v 161 >
W E
116 ^ ^ 82
2,804 > < 1,957
329 v v 93
< 179 ^ 1,179 > 220
S

P.M. Peak Hour Traffic Volumes

N
161 < 1,459 v 158 >
W E
127 ^ ^ 104
2,678 > < 1,823
221 v v 116
< 137 ^ 936 > 261
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,742	3,130
E-W Road:	5,515	5,147

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	2,742	10.78	0.80	0.65	0.50
East-West Road	6.1	4.9	3.5	5,515	10.78	3.63	2.91	2.08
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	3,130	10.78	0.91	0.74	0.57
East-West Road	6.1	4.9	3.5	5,147	10.78	3.38	2.72	1.94

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	8.8	8.7	5.9
50 Feet from Roadway Edge	8.0	7.9	5.3
100 Feet from Roadway Edge	7.0	6.9	4.6

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Santa Monica Blvd./Veteran Ave.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Veteran Ave.	At Grade	2	15	10
East-West Roadway:	Santa Monica Blvd.	At Grade	6	15	10

A.M. Peak Hour Traffic Volumes

Approach			
N	53 <	181 v	92 >
W	97 ^	2,059 >	3 v
E	^ 36	< 1,782	v 15
S	< 146	^ 376	> 48

P.M. Peak Hour Traffic Volumes

Approach			
N	53 <	387 v	34 >
W	167 ^	1,699 >	17 v
E	^ 78	< 1,815	v 81
S	< 102	^ 357	> 46

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	835	1,076
E-W Road:	4,140	3,853

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	835	7.30	0.16	0.13	0.10
East-West Road	6.1	4.9	3.5	4,140	7.30	1.84	1.48	1.06
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	1,076	10.78	0.31	0.26	0.20
East-West Road	6.1	4.9	3.5	3,853	10.78	2.53	2.04	1.45

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.4	7.2	4.8
50 Feet from Roadway Edge	6.0	6.7	4.4
100 Feet from Roadway Edge	5.6	6.1	4.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Santa Monica Blvd./Westwood Blvd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Westwood Blvd.	At Grade	4	15	15
East-West Roadway:	Santa Monica Blvd.	At Grade	6	15	15

A.M. Peak Hour Traffic Volumes

N
76 < 589 v 100 >
W 194 ^ 1,505 > 65 v
E ^ 165 < 1,569 v 148
< 66 ^ 1,001 > 44
S

P.M. Peak Hour Traffic Volumes

N
131 < 1,316 v 108 >
W 177 ^ 1,483 > 60 v
E ^ 205 < 1,554 v 181
< 53 ^ 1,039 > 90
S

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,125	2,976
E-W Road:	3,531	3,621

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,125	7.30	0.40	0.34	0.26
East-West Road	6.1	4.9	3.5	3,531	7.30	1.57	1.26	0.90
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,976	7.30	0.56	0.48	0.37
East-West Road	6.1	4.9	3.5	3,621	7.30	1.61	1.30	0.93

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.4	6.6	4.3
50 Feet from Roadway Edge	6.0	6.2	4.0
100 Feet from Roadway Edge	5.6	5.7	3.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

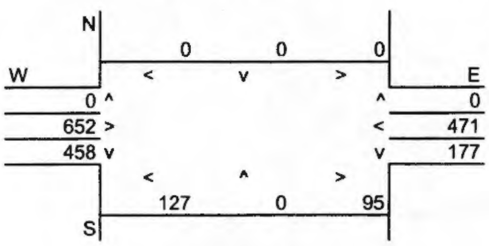
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

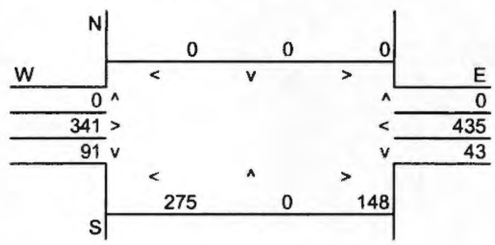
Intersection: Roscomare Rd./Mulholland Dr.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Roscomare Rd.	At Grade	2	10	20
East-West Roadway:	Mulholland Dr.	At Grade	2	10	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	857	557
E-W Road:	1,708	1,142

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	B	C			
	Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations		
Roadway	25 Feet	50 Feet	100 Feet	Volume	Factors[1]	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	857	10.78	0.25	0.20	0.16
East-West Road	7.6	5.7	4.0	1,708	10.78	1.40	1.05	0.74
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	557	5.52	0.08	0.07	0.05
East-West Road	7.6	5.7	4.0	1,142	5.52	0.48	0.36	0.25

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.0	5.0	4.0
50 Feet from Roadway Edge	5.7	4.8	3.7
100 Feet from Roadway Edge	5.3	4.7	3.4

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

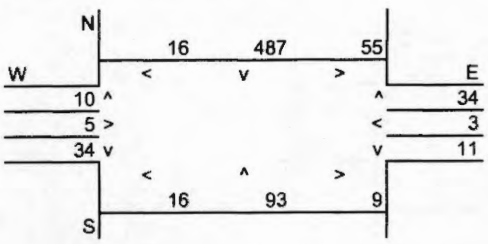
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

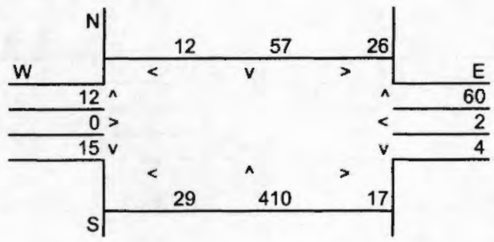
Intersection: Roscomare Rd./Stradella Rd. - Linda Flora Dr.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Roscomare Rd.	At Grade	2	20	20
East-West Roadway:	Stradella Rd. - Linda Flora Dr.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	695	N-S Road:	577
E-W Road:	117	E-W Road:	109

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	695	5.52	0.29	0.22	0.15
East-West Road	2.7	2.2	1.7	117	5.52	0.02	0.01	0.01
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	577	5.52	0.24	0.18	0.13
East-West Road	2.7	2.2	1.7	109	5.52	0.02	0.01	0.01

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	4.7	4.7	3.0
50 Feet from Roadway Edge	4.6	4.6	3.0
100 Feet from Roadway Edge	4.6	4.5	2.9

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

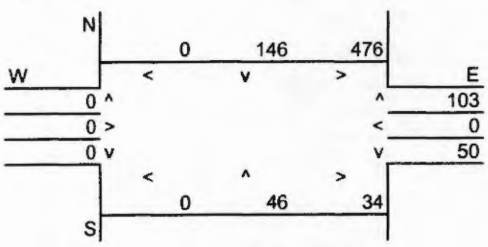
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

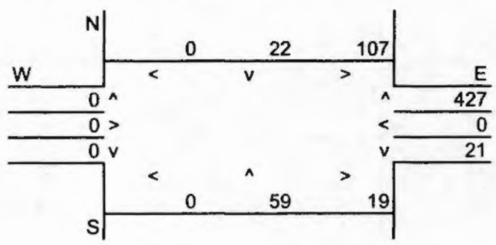
Intersection: Chalon Rd./Bellagio Rd.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Chalon Rd.	At Grade	2	20	20
East-West Roadway:	Bellagio Rd.	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	771	615
E-W Road:	663	574

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	771	5.52	0.32	0.24	0.17
East-West Road	2.7	2.2	1.7	663	5.52	0.10	0.08	0.06
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	615	5.52	0.26	0.19	0.14
East-West Road	2.7	2.2	1.7	574	5.52	0.09	0.07	0.05

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	4.8	4.7	3.1
50 Feet from Roadway Edge	4.7	4.7	3.0
100 Feet from Roadway Edge	4.6	4.6	3.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

Intersection: Beverly Glen Blvd./Mulholland Dr.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd.	At Grade	4	10	10
East-West Roadway:	Mulholland Dr.	At Grade	2	10	10

A.M. Peak Hour Traffic Volumes

	N			
	126 <	725 v	568 >	
W 74 ^				^ 247 E
715 >				< 265
104 v				v 85
	< 112	^ 279	> 43	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	69 <	431 v	231 >	
W 81 ^				^ 833 E
240 >				< 429
41 v				v 64
	< 33	^ 913	> 78	
	S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,019	N-S Road:	2,558
E-W Road:	1,923	E-W Road:	1,875

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,019	10.78	1.52	1.18	0.83
East-West Road	2.7	2.2	1.7	1,923	10.78	0.56	0.46	0.35
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,558	10.78	1.93	1.49	1.05
East-West Road	2.7	2.2	1.7	1,875	10.78	0.55	0.44	0.34

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.5	6.9	4.5
50 Feet from Roadway Edge	6.0	6.3	4.2
100 Feet from Roadway Edge	5.6	5.8	3.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: 10328-07
Project Title: UCLA LRDP

Background Information

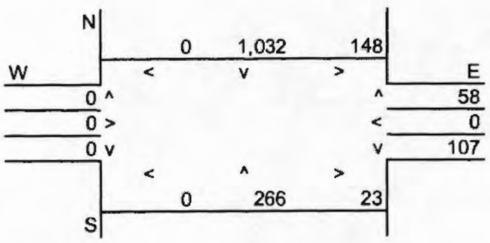
Nearest Air Monitoring Station measuring CO:	Northwest Coastal LA County
Background 1-hour CO Concentration (ppm):	4.4
Background 8-hour CO Concentration (ppm):	2.8
Persistence Factor:	0.7
Analysis Year:	2010

Roadway Data

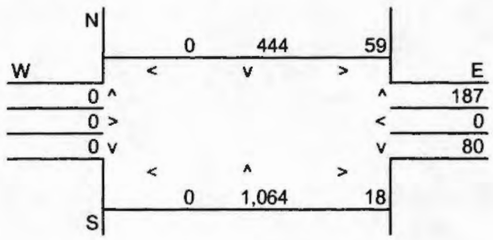
Intersection: Beverly Glen Blvd./Greendale Dr.
Analysis Condition: Future Plus Project Traffic Volumes (Regular Session)

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Beverly Glen Blvd.	At Grade	4	15	15
East-West Roadway:	Greendale Dr.	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,504	1,754
E-W Road:	336	344

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations 25 Feet	A_2 50 Feet	A_3 100 Feet	B Traffic Volume	C Emission Factors[1]	Estimated CO Concentrations 25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,504	7.30	0.77	0.59	0.42
East-West Road	2.7	2.2	1.7	336	7.30	0.07	0.05	0.04
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,754	7.30	0.90	0.69	0.49
East-West Road	2.7	2.2	1.7	344	7.30	0.07	0.06	0.04

[1] Methodology and emission factors from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	5.2	5.4	3.5
50 Feet from Roadway Edge	5.0	5.1	3.3
100 Feet from Roadway Edge	4.9	4.9	3.2

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

Health Risk Assessment (URS 2002)

HEALTH RISK ASSESSMENT

REVISED DRAFT

HEALTH RISK ASSESSMENT IN SUPPORT OF THE LONG RANGE DEVELOPMENT PLAN UPDATE FOR THE UNIVERSITY OF CALIFORNIA, LOS ANGELES

Prepared for

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July 11, 2002

URS

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Appendices

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List of Acronyms

ACE	Assessment of Chemical Exposure
ACGIH	American Conference of Governmental Industrial Hygienists
bhp	brake horsepower
BPIP	Building Profile Input Program
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
Cogen	Cogeneration
DEM	Digital Elevation Model
EPA	U.S. Environmental Protection Agency
ft^2	square feet
gal/hr	gallons per hour
HI	hazard index
hr/yr	hours per year
HRA	Health Risk Assessment
ICEs	internal combustion engines
ISCST3	Industrial Source Complex Short Term
lab	laboratory
lb/hr	pounds per hour
lb/yr	pounds per year
LMS	linearized multi-stage
LRDP	Long Range Development Plan
$\mu g/m^3$	micrograms per cubic meter
MEI	maximally exposed individual
mg/kg-d	milligrams per kilogram per day
MSDS	Material Safety Data Sheet
MMBTU/hr	million British thermal units per hour
MMcf	million cubic feet
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon
PEL	Permissible Exposure Limit
PM	particulate matter
PRG	Preliminary Remediation Goal
REL	reference exposure level
SCAQMD	South Coast Air Quality Management District
scores	prioritization scores
spec	specification
TLV	Threshold Limit Value
UCB	University of California, Berkeley
UCLA	University of California, Los Angeles
URF	unit risk factor
UTM	Universal Transverse Mercator
ZOA	zone of analysis

EXECUTIVE SUMMARY

URS Corporation (URS) was contracted by EIP Associates (EIP) to prepare a Health Risk Assessment (HRA) in support of the preparation of the Long Range Development Plan (LRDP) for the University of California, Los Angeles (UCLA). The LRDP addresses the anticipated growth in student enrollment at the campus through approximately 2010. The HRA evaluates the potential health risks posed by current and projected campus-wide operations through 2010 at off- and on-campus locations. Results are presented for two scenarios:

1. Existing Scenario; and
2. LRDP Scenario.

The results presented for the Existing Scenario represent the potential health risks posed by campus-wide operations (i.e., existing facilities as well as facilities under construction, approved with construction pending, and/or analyzed in a certified environmental impact report) in academic year 2001-02. The results presented for the LRDP Scenario represent the potential health risks posed by campus-wide operations under the Existing Scenario combined with potential new development considered in the 2002 LRDP through academic year 2010-11.

Description of the UCLA Campus and Operations

The campus is located in Los Angeles, California, north of Westwood Village. The campus provides numerous teaching and research facilities to faculty and students in the University of California system. The campus conducts routine operations that generate emissions regulated by the State of California. The sources of emissions include cogeneration 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 and subsequent year-to-year routine campus-wide operations through 2010.

HRA Procedures

The HRA was prepared in accordance with the most recent California Air Pollution Control Officers Association (CAPCOA) Risk Assessment Guidelines (CAPCOA, 1993). In addition, the HRA incorporated the most recent toxicological values published by the California Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA). Use of the CAPCOA guidelines, which have been adopted by the South Coast Air Quality Management District, results in a worst-case analysis of risk. For example, the theoretical incremental cancer risk estimated in this HRA is based on an individual being continuously exposed to emissions from routine campus-wide operations for 24 hours per day, 365 days per year, for 70 years at the same location. Actual risks are likely to be substantially lower than those estimated using the CAPCOA guidelines and could approach zero.

Summary of HRA Results from the Existing Scenario

Results of the cancer health effects assessment indicate that all of the cancer risks are less than 10 in one million (1.0×10^{-5}). Cancer risks less than 10 in one million are considered acceptable and do not require public notification in accordance with state and local guidelines. The theoretical incremental cancer risk as a result of a lifetime exposure to emissions from the routine campus-wide operation of all sources in the Existing Scenario was estimated to be 6.3 in one million (6.3×10^{-6}) at the off-campus maximally exposed individual (MEI) and 7.3 in one million (7.3×10^{-6}) at the on-campus MEI. The off-campus MEI was located east of the campus along Hilgard Avenue. The on-campus MEI was located at the day care center near Franz Hall.

The primary source contribution to the estimated cancer risk at the off-campus MEI was the standby generator at the Cogeneration (Cogen) Plant with approximately 27% of the risk. Other primary source contributions at this location included the gas turbines at the Cogen Plant with approximately 11% of the risk. The primary source contribution to the estimated cancer risk at the on-campus MEI was the standby generator at the Cogen Plant with approximately 34% of the risk. Other primary source contributions at this location included the gas turbines at the Cogen Plant with approximately 14% of the risk.

The primary chemical contribution to the estimated cancer risk at the off-campus MEI was diesel exhaust with approximately 61% of the risk. Other primary chemical contributions included polycyclic aromatic hydrocarbons (PAH) and chloroform with approximately 10% and 8% of the risks, respectively. The primary chemical contribution to the estimated cancer risk at the on-campus MEI was diesel exhaust with approximately 61% of the risk. Other primary chemical contributions included PAH and chloroform with approximately 12% and 7% of the risks, respectively.

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 campus-wide 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. The off-campus MEI was located east of the campus along Hilgard Avenue. The on-campus MEI was located at the day care center near Franz Hall.

Results of the acute noncancer health effects assessment indicate that all of the HI values for each organ system are less than 1.0. Acute HI values less than 1.0 indicate that noncancer effects from acute exposure to emissions from routine campus-wide 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 located approximately 200 meters west of the campus boundary. The on-campus MEI was located at the UCLA Medical Center.

The cancer, chronic, and acute noncancer results for the off- and on-campus MEIs in the Existing Scenario are presented in Table 1. The locations of the cancer, chronic, and acute noncancer off- and on-campus MEIs in the Existing Scenario are presented in Figure 1.

Summary of HRA Results from the LRDP Scenario

Results of the cancer health effects assessment indicate that all of the cancer risks are less than 10 in one million (1.0×10^{-5}). The theoretical incremental cancer risk as a result of a lifetime exposure to emissions from the routine campus-wide operation of all sources in the LRDP Scenario was estimated to be 6.4 in one million (6.4×10^{-6}) at the off-campus MEI and 7.5 in one million (7.5×10^{-6}) at the on-campus MEI. The off-campus MEI was located east of the campus along Hilgard Avenue. The on-campus MEI was located at the day care center near Franz Hall.

The primary source contribution to the estimated cancer risk at the off-campus MEI was the standby generator at the Cogeneration (Cogen) Plant with approximately 26% of the risk. Other primary source contributions at this location included the gas turbines at the Cogen Plant and the four standby generators at the UCLA Medical Center with approximately 11% and 7% of the risks, respectively. The primary source contribution to the estimated cancer risk at the on-campus MEI was the standby generator at the Cogen Plant with approximately 34% of the risk. Other primary source contributions at this location included the gas turbines at the Cogen Plant with approximately 13% of the risks.

The primary chemical contribution to the estimated cancer risk at the off-campus MEI was diesel exhaust with approximately 63% of the risk. Other primary chemical contributions included polycyclic aromatic hydrocarbons (PAH) and chloroform with approximately 10% and 8% of the risks, respectively. The primary chemical contribution to the estimated cancer risk at the on-campus MEI was diesel exhaust with approximately 62% of the risk. Other primary chemical contributions included PAH and chloroform with approximately 12% and 7% of the risks, respectively.

The maximum chronic 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 located east of the campus along Hilgard Avenue. The on-campus MEI was located at the day care center near Franz Hall.

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 located approximately 200 meters west of the campus boundary. The on-campus MEI was located at the UCLA Medical Center.

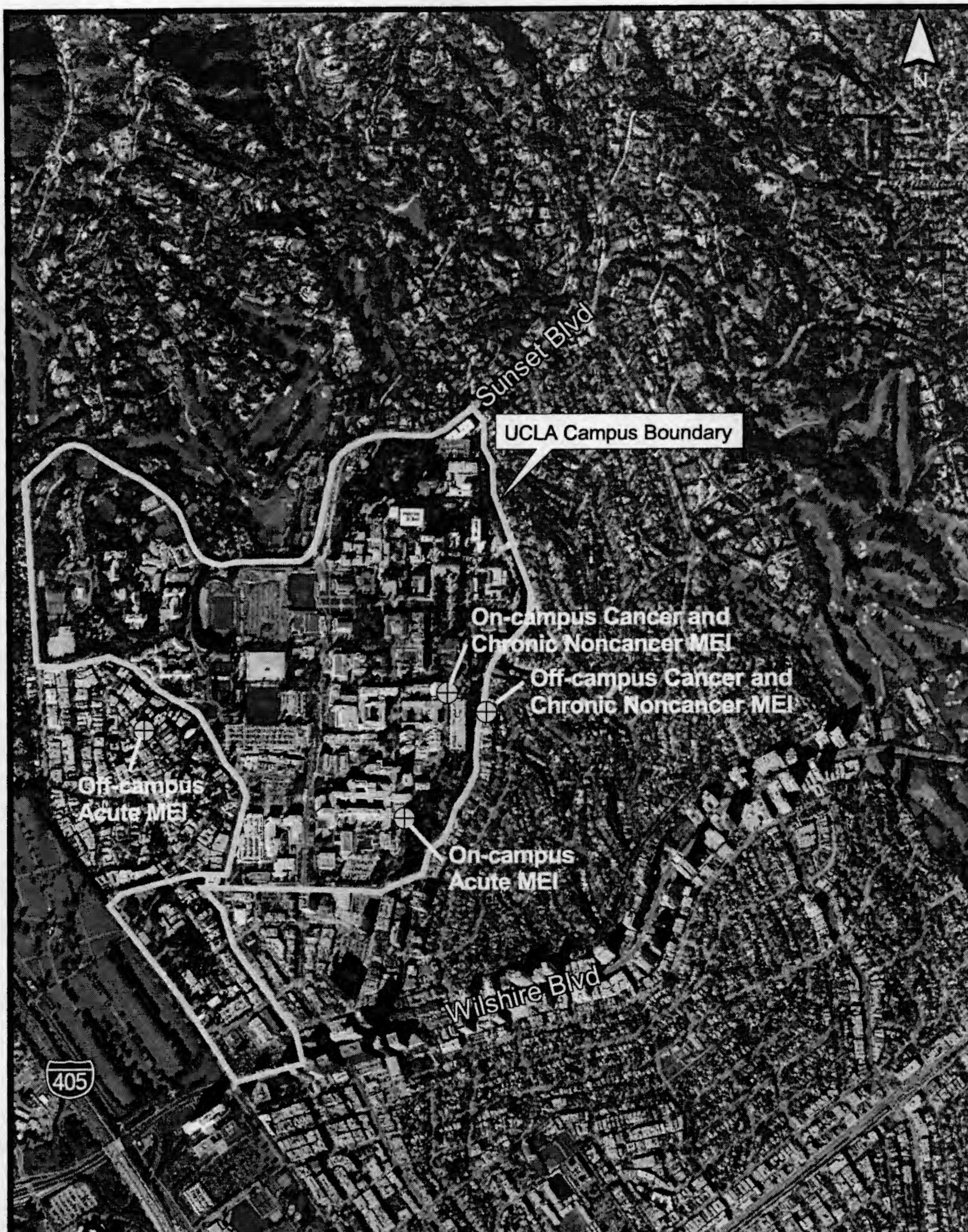
The cancer, chronic, and acute noncancer results for the off- and on-campus MEIs in the LRDP Scenario are presented in Table 2. The locations of the cancer, chronic, and acute noncancer off- and on-campus MEIs in the LRDP Scenario are presented in Figure 1.

Table 1. Summary of HRA Results for the Off- and On-campus MEIs in the Existing Scenario

	Result	Universal Transverse Mercator Coordinates		Location
		East (m)	North (m)	
Off-campus MEI				
Cancer Risk	6.3E-06	367313	3770554	East of campus along Hilgard Avenue
Chronic HI	0.11	367313	3770554	East of campus along Hilgard Avenue
Acute HI	0.15	366177	3770497	200 meters west of campus boundary
On-campus MEI				
Cancer Risk	7.3E-06	367182	3770618	Daycare at Franz Hall
Chronic HI	0.12	367182	3770618	Daycare at Franz Hall
Acute HI	0.12	367040	3770202	UCLA Medical Center

Table 2. Summary of HRA Results for the Off- and On-campus MEIs in the LRDP Scenario

	Result	UTM Coordinates		Location
		East (m)	North (m)	
Off-campus MEI				
Cancer Risk	6.4E-06	367313	3770554	East of campus along Hilgard Avenue
Chronic HI	0.11	367313	3770554	East of campus along Hilgard Avenue
Acute HI	0.15	366177	3770497	200 meters west of campus boundary
On-campus MEI				
Cancer Risk	7.5E-06	367182	3770618	Daycare at Franz Hall
Chronic HI	0.12	367182	3770618	Daycare at Franz Hall
Acute HI	0.12	367040	3770202	UCLA Medical Center



Locations of the Cancer, Chronic and Acute Noncancer Off- and On-Campus MEIs in the Existing and LRDP Scenarios

Project No: 57-00131199.01	Date: July 2002	Project: UCLA LRDP Update HRA	Figure 1

1.0 INTRODUCTION

URS Corporation (URS) was contracted by EIP Associates (EIP) to prepare a Health Risk Assessment (HRA) in support of the preparation of the Long Range Development Plan (LRDP) for the University of California, Los Angeles (UCLA). The LRDP addresses the anticipated growth in student enrollment at the campus through approximately 2010.The HRA evaluates the potential health risks posed by current and projected campus-wide operations through 2010 at off- and on-campus locations. Results are presented for two scenarios:

- Existing Scenario; and
- LRDP Scenario.

The results presented for the Existing Scenario represent the potential health risks posed by campus-wide operations (i.e., existing facilities as well as facilities under construction, approved with construction pending, and/or analyzed in a certified environmental impact report) in academic year 2001-02. The results presented for the LRDP Scenario represent the potential health risks posed by campus-wide operations under the Existing Scenario combined with potential new development considered in the 2002 LRDP through academic year 2010-11.

UCLA is one of nine campuses that comprise the University of California system. The campus is located in Los Angeles, California, north of Westwood Village. It is bound by residential communities on the west by Gayley Avenue, on the north by Sunset Avenue, and on the east by Hilgard Avenue. It is bound by the Westwood merchant district on the south by Le Conte Avenue. The main campus is located on 419 acres with 163 buildings providing facilities for approximately 23,000 employees and 37,000 students. The campus provides a notable economic, employment, and cultural benefit to its surrounding community. A map of the UCLA campus is provided in Figure 1-1.

The campus conducts routine operations that generate emissions regulated by the State of California. The sources of emissions include cogeneration gas turbines, gasoline dispensing operations, boilers, standby generators driven by internal combustion engines (ICEs), 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 and subsequent year-to-year routine campus-wide operations through 2010.

The HRA was prepared in accordance with the most recent California Air Pollution Control Officers Association (CAPCOA) Risk Assessment Guidelines (CAPCOA, 1993). In addition, the HRA incorporated the most recent toxicological values published by the California Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA). Use of the CAPCOA guidelines, which have been adopted by the South Coast Air Quality Management District (SCAQMD), results in a worst-case analysis of risk. For example, the theoretical incremental cancer risk estimated in this HRA is based on an individual being continuously exposed to emissions from routine campus-wide operations for 24 hours per day, 365 days per year, for 70 years at the same location. Actual risks are likely to be substantially lower than those estimated using the CAPCOA guidelines and could approach zero.

1.1 FACILITY ID

The UCLA SCAQMD Facility ID number is 018452.

1.2 IDENTIFYING INFORMATION

Identifying information for the facility is provided below:

Facility Address:	University of California, Los Angeles 405 Hilgard Avenue Box 951361 Los Angeles, CA 90095-1361
Primary Contact:	Ms. Tova Lelah Campus Capital Planning 1060 Veteran Avenue Box 951365 Los Angeles, CA 90095-1365

1.3 DOCUMENT ORGANIZATION

The remainder of this document is organized as follows:

- Section 2.0 - Hazard Identification;
- Section 3.0 - Exposure Assessment;
- Section 4.0 - Dose-response Assessment;
- Section 5.0 - Risk Characterization; and
- Section 6.0 - References.

Technical support documentation is included in the appendices.

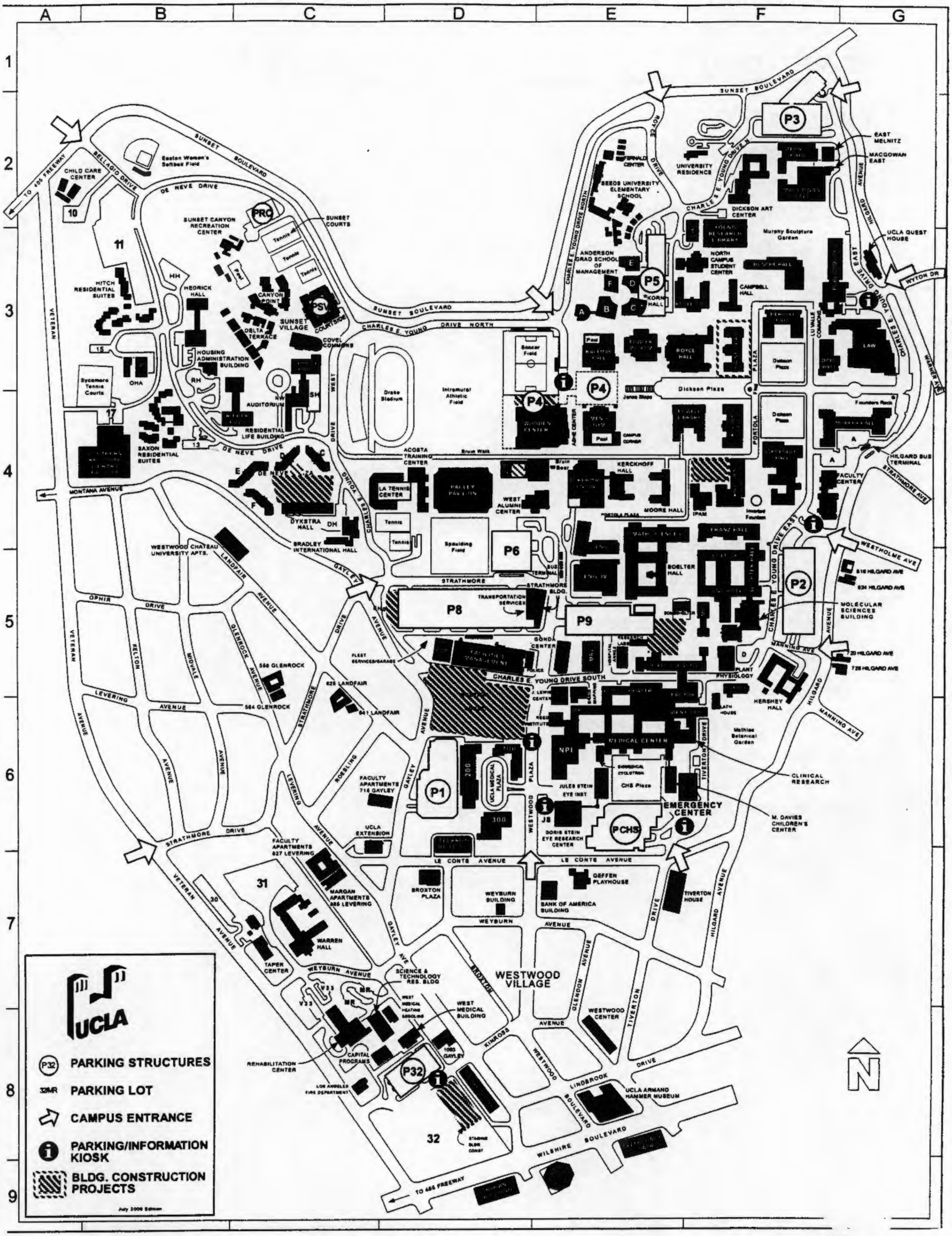


Figure 1-1. Map of the UCLA Campus

2.0 HAZARD IDENTIFICATION

Hazard identification is the step that identifies whether a substance is a potential human carcinogen or is capable of causing adverse noncancer health effects. For AB 2588 HRAs, toxicity factors published by the OEHHA, as well as the CAPCOA AB 2588 guidelines specify which substances from the AB 2588 Inventory Guideline Regulations shall be considered for inclusion.

2.1 EMISSIONS QUANTIFICATION

The analysis evaluated emissions from various existing sources associated with routine, campus-wide operations. In addition, potential new sources were evaluated to account for growth over the next 10 years. The following emission source-types were included in the analysis:

- Cogeneration gas turbines;
- Gasoline dispensing operations;
- Boilers;
- ICEs;
- Painting operations; and
- Laboratory chemical usage.

The existing sources were identified based on the list of SCAQMD air permits, the annual air emission report, and previous studies provided by UCLA. The potential new sources were identified based on projected new laboratory (lab) and building construction provided by UCLA. The emissions from most of the existing sources were estimated based on fuel and material usage reported in the 2000/2001 annual air emission report submitted to the SCAQMD. The lab chemical usage was estimated based on studies from other similar labs. The emissions from the potential new sources were estimated based on assumptions on fuel and chemical usage representative of similar campus-wide operations. The fuel, material, and chemical usage used to estimate the emissions for this HRA are considered representative of the current and subsequent year-to-year routine, campus-wide operations.

A standard source prioritization score was used to identify the sources considered to be key contributors to the potential health risks. Those sources identified as key contributors were included in the HRA and the remaining sources were not included in the HRA. A detailed discussion of the source prioritization scores and results is presented in Section 2.2. A summary of the emissions evaluated in the source prioritization and HRA for the Existing and LRDP Scenarios is presented in Table 2-1. A summary of the sources evaluated in the source prioritization and HRA for the Existing and LRDP Scenarios is presented in Table 2-2. The emissions calculation methodology for each source type is discussed below.

2.1.1 Cogeneration Gas Turbines

In the Existing and LRDP Scenarios, two permitted gas turbines located at the Cogeneration (Cogen) Plant provide the majority of the electricity for campus-wide operations. Each turbine is permitted to fire on blended natural and landfill gas with each having a rated capacity of 234 million British thermal units (MMBTU/hr). The emissions were estimated based on emission factors and the reported natural and landfill gas usage. The emission factors for natural gas were obtained from the U.S. Environmental Protection Agency's (EPA's) AP-42, Table 3.1-3, April 2000. The emission factors for landfill gas were obtained from source tests, metals analysis, and assumptions for natural gas. The annual emissions were estimated based on the annual natural and landfill gas usage of 2,648 and 774.2 million cubic feet (MMcf), respectively. The hourly emissions were estimated based on assuming the turbines operated continuously throughout the year and dividing the annual usage by 8,760. The usage was divided equally between the two turbines. A detailed breakdown of the turbine emissions by pollutant for each Scenario is presented in Appendix A. There were no substantial changes in turbine emissions between the Existing and LRDP Scenarios.

2.1.2 Gasoline Dispensing

In the Existing and LRDP Scenarios, one permitted unleaded gasoline dispensing facility located near the Campus Services Building I supplies fuel to the campus fleet vehicles. The facility contains eight dispensing nozzles equipped with Phase II vapor recovery systems and two 10,000-gallon underground storage tanks. The emissions were estimated based on emission factors and the unleaded gasoline throughput. The emission factors for gasoline dispensing were obtained from the EPA's AP-42, Section 5.2. The annual emissions were estimated based on the annual unleaded gasoline throughput of 500,077 gallons. The hourly emissions were estimated based on the number of nozzles and assuming a filling rate of 6 gallons per minute over 40 minutes per hour (8 x 6 x 40 gallons per hour [gal/hr]). A detailed breakdown of the unleaded gasoline dispensing emissions by pollutant for each Scenario is provided in Appendix A. There were no substantial changes in unleaded gasoline dispensing emissions between the Existing and LRDP Scenarios.

2.1.3 Boilers

In the Existing and LRDP Scenarios, eight permitted boilers located throughout the campus primarily provide hot water to campus dormitories. Each boiler is permitted to fire on natural gas with a rated capacity generally ranging from 4 to 12 MMBTU/hr (one auxiliary boiler located at the Cogen Plant is rated at 224 MMBTU/hr). The emissions were estimated based on emission factors and the reported natural gas usage. The emission factors for natural gas were obtained from Ventura County in May 2001. The annual emissions were estimated based on the annual natural gas usage of 131.9, 117, and 48 MMcf, respectively, reported by Energy Services, North Campus, and Utilities. The natural gas reported by Energy Services was all burned in the Cogen Plant auxiliary boiler. The natural gas reported by North Campus was divided equally between the four boilers in Hedrick and Rieber Halls. The natural gas reported by Utilities was divided between the three boilers in Warren Hall and 200/201 Med Plaza based on the size of the boilers. The hourly emissions were estimated based on a theoretical maximum hourly usage calculated from the size of the boiler divided by the lower heating value for natural gas. A detailed breakdown of boiler emissions by pollutant for each Scenario is included in Appendix A. There were no substantial changes in boiler emissions between the Existing and LRDP Scenarios.

2.1.4 Internal Combustion Engines

In the Existing and LRDP Scenarios, 53 standby generators containing ICEs located throughout the campus provide emergency power to campus-wide facilities. In the LRDP Scenario, it was assumed that two new standby generators containing ICEs would be installed to support the projected new construction across the campus.

The existing standby generators' ICEs are fired on diesel fuel and have rated capacities ranging from 66 to 2,220 brake horsepower (bhp). The emissions were estimated based on emission factors and the reported diesel fuel usage. The gaseous emissions for diesel-fired ICEs rated less than 600 bhp were estimated based on emission factors obtained from the EPA's AP-42, Table 3.3-2, October 1996. The gaseous emissions for diesel-fired ICEs rated greater than 600 bhp were estimated based on emission factors obtained from the EPA's AP-42, Table 3.4-3 and 3.4-4, October 1996.

Most of the particulate matter (PM) emissions were estimated based on the generic PM emission factor in the annual air emission report. However, for the standby generators at the Cogen Plant (ICE 10) and the Medical Center (ICEs 38-41), the PM emissions were estimated based on manufacturers' data. The annual emissions were estimated based on the annual diesel fuel usage of 4,200, 390, and 2,600 gallons, respectively, reported by Energy Services, North Campus, and Utilities. The diesel fuel reported by Energy Services was all burned in the Cogen Plant standby generator. The diesel fuel reported by North Campus was divided between the six standby generators supporting the North Campus dormitories based on the size of the engines. The diesel fuel reported by Utilities was divided between the 38 standby generators maintained by Utilities throughout the campus based on the size, actual logged hours, and load factor for the engines. The load factors were estimated based on discussions with Facilities Management personnel. Most standby generators on campus are routinely tested at idle and, thus, were assumed to operate at a 25% load factor. However, the Cogen Plant and UCLA Medical Center standby generators undergo more rigorous testing and are routinely operated at approximately 75% load. The hourly emissions were estimated based on an hourly usage calculated from the size of the engine and load factor.

For the new potential standby generators and some of the existing standby generators (ICEs 48-49, 51-54, and 56), it was assumed that a 500 bhp diesel-fired ICE would drive the generator. The emissions were estimated based on emission factors and assuming a representative operation and diesel fuel usage. The gaseous emissions were estimated based on emission factors obtained from the EPA's AP-42, Table 3.3-2, October 1996. The PM emissions were estimated based on the proposed California PM standard for new diesel-fired standby generators (0.1 grams per bhp). A manufacturer specification (spec) sheet was obtained from Caterpillar for a 487 bhp diesel-fired engine to represent the new engines across the campus. The spec sheet provided some data necessary for this analysis (e.g., fuel consumption, exhaust temperature, etc.). A copy of the spec sheet is contained in Appendix A. The annual emissions were based on diesel fuel usage associated with 26 hours per year (hr/yr) of operation. Based on discussions with Facilities Management personnel, standby generators on campus are generally tested 15 to 20 minutes per week at 25% load for routine maintenance purposes, which equates to about 13 to 17 hours of annual operation. For conservatism, this analysis assumed that the standby generators would be tested for 30 minutes per week at 25% load for routine maintenance purposes equating to 26 hr/yr of operation. The hourly emissions were estimated based on an hourly usage calculated from the size of the engine and load factor. A detailed breakdown of ICE emissions by pollutant for each Scenario is presented in Appendix A. There was a slight increase in ICE emissions in the LRDP Scenario because of the projected installation of two new standby generators containing ICEs in the Scenario.

2.1.5 Painting Operations

In the Existing and LRDP Scenarios, one permitted painting spray booth is located in the Campus Services Building I. The emissions were estimated based on material composition obtained from representative Material Safety Data Sheets (MSDSs) and material usage. It was assumed that all of the material usage was evaporated through the exhaust stack. The annual emissions were estimated based on the annual usage of primer, sealer, and lacquer of 14.5, 95, and 111.3 gallons, respectively. The hourly emissions were estimated based on a material usage of one gal/hr. A detailed breakdown of the painting spray booth emissions by pollutant for each Scenario is presented in Appendix A. There were no substantial changes in painting spray booth emissions between the Existing and LRDP Scenarios.

2.1.6 Laboratory Chemical Usage

In the Existing and LRDP Scenarios, numerous research labs are located throughout the campus. The research involves the routine use, storage, and transport of lab chemicals. In the Existing Scenario, the amount of "wet" lab floor space (i.e., the area where the chemicals are handled and used) contained within labs is approximately 1,067,325 square feet (ft^2). In the LRDP Scenario, the amount of projected "wet" lab floor space is approximately 935,369ft^2 (after projected demolition and construction of labs).

In the Existing and LRDP Scenarios, numerous fume hoods vent the “wet” lab floor space in the buildings. The venting systems are ducted through and released at the top of the buildings. The magnitude of emissions released through the fume hood venting systems is dependent on the volumetric or mass usage of chemicals in the “wet” labs and loss factors. A representative list of chemicals used within the UCLA labs was developed based on a list of chemicals presented in a University of California, Berkeley (UCB) HRA for UCB Central Campus operations (URS, 2000). It was deemed representative given the similar nature and scope of the general research activities between UCLA and UCB. In addition, the mass usage and loss factors were obtained from the UCB HRA. The mass usage for UCLA labs was scaled based on the total mass usage reported in the UCB HRA and the associated UCB "“wet” lab floor space of 499,332 ft^2. Thus, the UCLA mass usage for each Scenario was determined based on scaling the UCB mass usage by the ratio of the “wet” lab floor spaces for the two campuses (i.e., 1,067,325/499,332 = 2.14 and 935,369/499,332 = 1.87). The loss factors were derived from a study prepared for Stanford University for the Stanford Biology-Chemistry Quadrangle project (Decision Focus 1989) where a number of Principal Investigators and Lab Coordinators were interviewed in a detailed survey. The loss factors represent conservative estimates of evaporative chemical losses that might occur assuming relatively good to poor laboratory practices. The actual evaporative losses will likely be lower than the loss factors used in this analysis. The loss factors for all chemicals were applied to the expected annual chemical usage to estimate potential annual emissions.

No information was available to directly calculate potential hourly laboratory emissions; therefore, the maximum hourly fume hood emissions were estimated based on ratios between maximum and average emission factors from other studies. An average ratio of 5.18 was calculated, which was applied to the annual fume hood emissions. A detailed breakdown of lab chemical usage emissions by pollutant for each Scenario is provided in Appendix A. . There was a slight decrease in lab chemical usage emissions in the LRDP Scenario because of the projected decrease in "wet" lab floor space in the Scenario.

2.2 SOURCE PRIORITIZATION

In the Existing and LRDP Scenarios, three prioritization scores (scores) (i.e., cancer, chronic noncancer, and acute noncancer) were calculated for each source based on standard equations contained in the CAPCOA Facility Prioritization Guidelines (July 1990) and emissions calculated in Section 2.1. The scores account for potency, toxicity, and quantities of pollutants released from sources and provide a comparative mechanism to estimate the potential of an individual emission source to cause adverse health effects. Sources with higher scores have a higher potential to cause adverse health effects than sources with lower scores.

The cancer scores were calculated based on the source's annual estimated emissions and appropriate cancer unit risk factor (URF). The chronic noncancer scores were calculated based on the source's annual estimated emissions and appropriate chronic noncancer reference exposure level (REL). The acute noncancer scores were calculated based on the source's hourly estimated emissions and appropriate acute noncancer REL.

The sources with cancer scores greater than 0.25 were included in the HRA for each Scenario. The sources included in the HRA for the Existing and LRDP Scenarios accounted for 98.9% of the potential cancer risk. The sources with chronic noncancer scores greater than 1.0 were included in the HRA for each Scenario. The sources included in the HRA for the Existing and LRDP Scenarios accounted for 98.5% and 98.4%, respectively, of the potential chronic noncancer risk. The sources with acute noncancer scores greater than 1.0 were included in the HRA for each Scenario. The sources included in the HRA for the Existing and LRDP Scenarios accounted for 84.9% and 85.2%, respectively, of the potential acute noncancer risk. A summary of the source prioritization scores and results for the Existing and LRDP Scenarios is presented in Tables 2-3 and 2-4, respectively. A detailed breakdown of the source prioritization scores for each Scenario is presented in Appendix B.

2.3 HEALTH EFFECTS

Table 2-5 identifies the substances included in the HRA for both Scenarios and the potential health effects for which the substances will be evaluated. The same substances were evaluated in both Scenarios.

Table 2-1. Emissions Evaluated in the UCLA Prioritization and HRA for the Existing and LRDP Scenarios

Substance	Existing Scenario				LDRP Scenario			
	Evaluated in Prioritization		Evaluated in HRA		Evaluated in Prioritization		Evaluated in HRA	
	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)
Acetaldehyde	3.23E-02	1.15E+02	2.52E-02	1.14E+02	3.35E-02	1.15E+02	2.65E-02	1.14E+02
Acetonitrile	2.37E-01	4.01E+02	2.32E-01	3.93E+02	2.08E-01	3.51E+02	2.03E-01	3.43E+02
Acrolein	5.06E-03	1.88E+01	4.06E-03	1.84E+01	5.20E-03	1.88E+01	4.22E-03	1.84E+01
Antimony	5.85E-06	5.12E-02	5.85E-06	5.12E-02	5.85E-06	5.12E-02	5.85E-06	5.12E-02
Arsenic	5.85E-06	5.12E-02	5.85E-06	5.12E-02	5.85E-06	5.12E-02	5.85E-06	5.12E-02
Benzene	1.39E-01	9.22E+01	1.27E-01	9.00E+01	1.37E-01	8.62E+01	1.25E-01	8.40E+01
Benzyl Chloride	4.52E-04	3.96E+00	4.52E-04	3.96E+00	4.52E-04	3.96E+00	4.52E-04	3.96E+00
Beryllium	9.74E-07	8.53E-03	9.74E-07	8.53E-03	9.74E-07	8.53E-03	9.74E-07	8.53E-03
Bromine Compounds	3.01E-03	5.09E+00	2.95E-03	4.99E+00	2.64E-03	4.46E+00	2.58E-03	4.36E+00
Butadiene, 1,3-	1.01E-03	1.24E+00	6.57E-04	1.24E+00	1.06E-03	1.24E+00	7.22E-04	1.24E+00
Butyl Alcohol, Tert-	1.06E+00	1.80E+03	1.04E+00	1.77E+03	9.33E-01	1.58E+03	9.13E-01	1.54E+03
Cadmium	9.74E-07	8.53E-03	9.74E-07	8.53E-03	9.74E-07	8.53E-03	9.74E-07	8.53E-03
Carbon Tetrachloride	2.11E-02	3.78E+01	2.07E-02	3.71E+01	1.86E-02	3.35E+01	1.82E-02	3.28E+01
Chlorobenzene	4.75E-04	4.16E+00	4.75E-04	4.16E+00	4.75E-04	4.16E+00	4.75E-04	4.16E+00
Chloroform	5.12E-01	8.68E+02	5.02E-01	8.51E+02	4.49E-01	7.61E+02	4.39E-01	7.44E+02
Chromium Hexavalent	9.74E-07	8.53E-03	9.74E-07	8.53E-03	9.74E-07	8.53E-03	9.74E-07	8.53E-03
Copper	3.90E-06	3.41E-02	3.90E-06	3.41E-02	3.90E-06	3.41E-02	3.90E-06	3.41E-02
Dichlorobenzene, p-	2.10E-04	1.84E+00	2.10E-04	1.84E+00	2.10E-04	1.84E+00	2.10E-04	1.84E+00
Diesel Exhaust (particulates)	1.52E+01	1.47E+02	1.22E+01	1.45E+02	1.54E+01	1.52E+02	1.24E+01	1.51E+02
Dimethylformamide	1.35E-02	2.28E+01	1.32E-02	2.24E+01	1.18E-02	2.00E+01	1.16E-02	1.96E+01
Dioxane, 1,4-	3.46E-02	5.85E+01	3.39E-02	5.74E+01	3.03E-02	5.13E+01	2.97E-02	5.02E+01
Epichlorohydrin	2.91E-04	4.92E-01	2.85E-04	4.82E-01	2.55E-04	4.31E-01	2.49E-04	4.21E-01
Ethanol	1.88E+01	3.17E+04	1.84E+01	3.11E+04	1.64E+01	2.78E+04	1.61E+01	2.72E+04
Ethyl Acetate	7.71E-01	1.30E+03	7.57E-01	1.28E+03	6.76E-01	1.14E+03	6.61E-01	1.12E+03
Ethyl Benzene	2.80E-02	9.74E+01	2.76E-02	9.59E+01	2.80E-02	9.74E+01	2.76E-02	9.59E+01
Ethyl Ether	4.21E-01	7.12E+02	4.13E-01	6.99E+02	3.69E-01	6.24E+02	3.61E-01	6.10E+02
Ethylene Dichloride	2.75E-04	2.41E+00	2.75E-04	2.41E+00	2.75E-04	2.41E+00	2.75E-04	2.41E+00
Ethylene Glycol Butyl Ether	1.32E+00	8.30E+01	0.00E+00	0.00E+00	1.32E+00	8.30E+01	0.00E+00	0.00E+00
Formaldehyde	4.47E-01	2.34E+03	4.32E-01	2.33E+03	4.26E-01	2.30E+03	4.11E-01	2.29E+03
Glutaraldehyde	6.16E-03	1.04E+01	6.04E-03	1.02E+01	5.39E-03	9.12E+00	5.28E-03	8.92E+00
Hexane	9.65E-02	5.10E+01	9.59E-02	4.95E+01	9.44E-02	4.74E+01	9.38E-02	4.59E+01
Hydrazine	2.91E-04	4.92E-01	2.85E-04	4.82E-01	2.55E-04	4.31E-01	2.49E-04	4.21E-01
Hydrogen Chloride	5.50E-01	9.30E+02	5.39E-01	9.12E+02	4.82E-01	8.15E+02	4.71E-01	7.97E+02
Hydrogen Fluoride	1.98E-02	3.34E+01	1.94E-02	3.28E+01	1.73E-02	2.93E+01	1.69E-02	2.86E+01
Isopropyl Alcohol	7.55E-01	1.28E+03	7.40E-01	1.25E+03	6.61E-01	1.12E+03	6.47E-01	1.09E+03
Lead	3.90E-06	3.41E-02	3.90E-06	3.41E-02	3.90E-06	3.41E-02	3.90E-06	3.41E-02
Manganese	4.87E-05	4.27E-01	4.87E-05	4.27E-01	4.87E-05	4.27E-01	4.87E-05	4.27E-01
Mercury Compounds	5.85E-07	5.12E-03	5.85E-07	5.12E-03	5.85E-07	5.12E-03	5.85E-07	5.12E-03
Methanol	3.59E+00	6.07E+03	3.52E+00	5.96E+03	3.15E+00	5.32E+03	3.08E+00	5.21E+03

Substance	Existing Scenario				LDRP Scenario			
	Evaluated in Prioritization		Evaluated in HRA		Evaluated in Prioritization		Evaluated in HRA	
	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)
Methyl Bromide	1.46E+00	2.47E+03	1.43E+00	2.42E+03	1.28E+00	2.16E+03	1.25E+00	2.11E+03
Methyl Tert Butyl Ether	6.34E-01	1.65E+02	6.34E-01	1.65E+02	6.34E-01	1.65E+02	6.34E-01	1.65E+02
Methylene Chloride	1.27E+00	2.16E+03	1.25E+00	2.12E+03	1.12E+00	1.90E+03	1.09E+00	1.86E+03
Naphthalene	1.21E-02	3.94E+00	1.10E-02	3.89E+00	1.23E-02	3.94E+00	1.11E-02	3.89E+00
Nickel	1.95E-06	1.71E-02	1.95E-06	1.71E-02	1.95E-06	1.71E-02	1.95E-06	1.71E-02
PAH (carcinogenic)	8.32E-03	2.69E+00	7.30E-03	2.68E+00	8.44E-03	2.70E+00	7.44E-03	2.68E+00
Perchloroethylene	5.90E-03	3.95E+01	5.86E-03	3.94E+01	5.68E-03	3.91E+01	5.65E-03	3.91E+01
Phosgene	8.97E-04	1.52E+00	8.80E-04	1.49E+00	7.86E-04	1.33E+00	7.69E-04	1.30E+00
Propylene	3.03E-01	1.18E+02	2.38E-01	5.18E+00	3.07E-01	1.18E+02	2.42E-01	5.30E+00
Propylene Oxide	9.45E-03	8.28E+01	9.45E-03	8.28E+01	9.45E-03	8.28E+01	9.45E-03	8.28E+01
Pyridine	9.13E-03	1.54E+01	8.95E-03	1.51E+01	8.00E-03	1.35E+01	7.82E-03	1.32E+01
Selenium	9.74E-07	8.53E-03	9.74E-07	8.53E-03	9.74E-07	8.53E-03	9.74E-07	8.53E-03
Tetrahydrofuran	2.02E-01	3.42E+02	1.98E-01	3.35E+02	1.77E-01	2.99E+02	1.73E-01	2.93E+02
Toluene	3.16E-01	7.43E+02	3.08E-01	7.34E+02	3.03E-01	7.20E+02	2.95E-01	7.11E+02
Trichloroethane, 1,1,1-	1.36E-02	2.59E+01	1.34E-02	2.54E+01	1.20E-02	2.31E+01	1.18E-02	2.27E+01
Trichloroethylene	5.55E-03	1.34E+01	5.46E-03	1.32E+01	4.94E-03	1.23E+01	4.84E-03	1.21E+01
Triethylamine	1.04E-02	1.76E+01	1.02E-02	1.73E+01	9.14E-03	1.55E+01	8.94E-03	1.51E+01
Vinyl Chloride	4.35E-04	3.81E+00	4.35E-04	3.81E+00	4.35E-04	3.81E+00	4.35E-04	3.81E+00
Vinylidene Chloride	2.74E-04	2.40E+00	2.74E-04	2.40E+00	2.74E-04	2.40E+00	2.74E-04	2.40E+00
Xylenes	1.33E-01	3.54E+02	1.28E-01	3.48E+02	1.28E-01	3.45E+02	1.23E-01	3.39E+02
Zinc	2.14E-05	1.88E-01	2.14E-05	1.88E-01	2.14E-05	1.88E-01	2.14E-05	1.88E-01

Table 2-2. Sources Evaluated in the UCLA Prioritization and HRA for the Existing and LRDP Scenarios

Source ID	Source Type	Location	Size	Units	Permit/ Status	Existing Scenario		LDRP Scenario	
						Evaluated in Prioritization	Evaluated in HRA	Evaluated in Prioritization	Evaluated in HRA
TURB1	Gas Turbine	Cogen	234	MMBTU/hr	F00255	✓	✓	✓	✓
TURB2	Gas Turbine	Cogen	234	MMBTU/hr	F00070	✓	✓	✓	✓
DISP1	Gasoline Disp	Fleet Services	10,000	gal capacity	N8863	✓	✓	✓	✓
BOIL1	Boiler (2)	Hedrick Hall	5	MMBTU/hr	D79672/3	✓		✓	
BOIL2	Boiler (2)	Rieber Hall	5	MMBTU/hr	D79674/5	✓		✓	
BOIL3	Boiler	Warren Hall	5	MMBTU/hr	D71042	✓		✓	
BOIL4	Boiler (2)	200 Med Plaza	13	MMBTU/hr	D71162/5	✓		✓	
BOIL5	Boiler	Cogen	224	MMBTU/hr	F01220	✓	✓	✓	✓
ICE1	ICE, Stby Gen	Ackerman	746	bhp	D89196	✓	✓	✓	✓
ICE2	ICE, Stby Gen	Kerckhoff	377	bhp	F37887	✓	✓	✓	✓
ICE3	ICE, Stby Gen	Covel	339	bhp	D38196	✓	✓	✓	✓
ICE4	ICE, Stby Gen	Sunset Rec Ne	66	bhp	D88184	✓		✓	
ICE5	ICE, Stby Gen	De Neve	550	bhp	F36980	✓	✓	✓	✓
ICE6	ICE, Stby Gen	Hedrick	440	bhp	F38570	✓	✓	✓	✓
ICE7	ICE, Stby Gen	Sproul Hall	724	bhp	F38571	✓	✓	✓	✓
ICE8	ICE, Stby Gen	Dykstra	320	bhp	F38572	✓	✓	✓	✓
ICE9	ICE, Stby Gen	Rieber Hall	320	bhp	F38573	✓	✓	✓	✓
ICE10	ICE, Stby Gen	Cogen	2,220	bhp	D75643	✓	✓	✓	✓
ICE11	ICE, Stby Gen	Young Hall E	1,750	bhp	D88255	✓	✓	✓	✓
ICE12	ICE, Stby Gen	Boelter III	443	bhp	D89155	✓		✓	
ICE13	ICE, Stby Gen	Royce NW	235	bhp	D98768	✓		✓	
ICE14	ICE, Stby Gen	Boelter II 12400	166	bhp	D98801	✓		✓	
ICE15	ICE, Stby Gen	Fowler	390	bhp	F00370	✓		✓	
ICE16	ICE, Stby Gen	MSB	1,232	bhp	F00371	✓	✓	✓	✓
ICE17	ICE, Stby Gen	STRB	746	bhp	F11549	✓	✓	✓	✓
ICE18	ICE, Stby Gen	PS 4	519	bhp	F17312	✓		✓	
ICE19	ICE, Stby Gen	SRL N	377	bhp	F2279	✓		✓	

Source ID	Source Type	Location	Size	Units	Permit/ Status	Existing Scenario: Evaluated in Prioritization	Existing Scenario: Evaluated in HRA	LDRP Scenario: Evaluated in Prioritization	LDRP Scenario: Evaluated in HRA
ICE20	ICE, Stby Gen	UCPD NE	746	bhp	F23691	✓	✓	✓	✓
ICE21	ICE, Stby Gen	Life Sciences	250	bhp	F23692	✓		✓	
ICE22	ICE, Stby Gen	PS 1	750	bhp	F2943	✓	✓	✓	✓
ICE23	ICE, Stby Gen	Franz Hall	166	bhp	F37922	✓		✓	
ICE24	ICE, Stby Gen	Math Sciences	94	bhp	F39010	✓		✓	
ICE25	ICE, Stby Gen	MBI Rm 102	335.25	bhp	F4680	✓		✓	
ICE26	ICE, Stby Gen	SRL	168	bhp	F4681	✓		✓	
ICE27	ICE, Stby Gen	PS 8 SE	168	bhp	F4806	✓		✓	
ICE28	ICE, Stby Gen	Powell E	240	bhp	F4807	✓		✓	
ICE29	ICE, Stby Gen	Rehab	107	bhp	F4808	✓		✓	
ICE30	ICE, Stby Gen	Bunche	100	bhp	F5266	✓		✓	
ICE31	ICE, Stby Gen	LATC	135	bhp	F5268	✓		✓	
ICE32	ICE, Stby Gen	Pauley	135	bhp	F5269	✓		✓	
ICE33	ICE, Stby Gen	Law Library	370	bhp	F5492	✓		✓	
ICE34	ICE, Stby Gen	Gonda	1,850	bhp	F9960	✓	✓	✓	✓
ICE35	ICE, Stby Gen	200 Med Plaza	400	bhp	D77804	✓	✓	✓	✓
ICE36	ICE, Stby Gen	300 Med Plaza	335	bhp	D77805	✓	✓	✓	✓
ICE37	ICE, Stby Gen	200 Med Plaza	400	bhp	D77806	✓	✓	✓	✓
ICE38	ICE, Stby Gen	UCLA Med Ctr	1,260	bhp	D78147	✓	✓	✓	✓
ICE39	ICE, Stby Gen	UCLA Med Ctr	1,260	bhp	D78148	✓	✓	✓	✓
ICE40	ICE, Stby Gen	UCLA Med Ctr	1,260	bhp	D78149	✓	✓	✓	✓
ICE41	ICE, Stby Gen	UCLA Med Ctr	1,260	bhp	D78150	✓	✓	✓	✓
ICE42	ICE, Stby Gen	UCLA Med Ctr	1,550	bhp	D79963	✓	✓	✓	✓
ICE44	ICE, Stby Gen	Macdonald Lab	890	bhp	D48280	✓	✓	✓	✓
ICE45	ICE, Stby Gen	AGSM South	1,490	bhp	D87699	✓		✓	

Source ID	Source Type	Location	Size	Units	Permit/ Status	Existing Scenario: Evaluated in Prioritization	Existing Scenario: Evaluated in HRA	LDRP Scenario: Evaluated in Prioritization	LDRP Scenario: Evaluated in HRA
ICE46	ICE, Stby Gen	SEAS IV NW	1,095	bhp	D99790	✓	✓	✓	✓
ICE47	ICE, Stby Gen	HANX	102	bhp	F38569	✓		Demolition	
ICE48	ICE, Stby Gen	Env Svcs Fac	500	bhp	Existing	✓	✓	✓	✓
ICE49	ICE, Stby Gen	Phy & Ast/Knudsen	500	bhp	Existing	✓	✓	✓	✓
ICE50	ICE, Stby Gen	Ambulatory	500	bhp	Proposed			✓	✓
ICE51	ICE, Stby Gen	HSSRB #1	500	bhp	Existing	✓	✓	✓	✓
ICE52	ICE, Stby Gen	HSSRB #2	500	bhp	Existing	✓	✓	✓	✓
ICE53	ICE, Stby Gen	Luck Ctr	500	bhp	Existing	✓	✓	✓	✓
ICE54	ICE, Stby Gen	HSSRB #3	500	bhp	Existing	✓	✓	✓	✓
ICE55	ICE, Stby Gen	Stein 3	500	bhp	Proposed			✓	✓
ICE56	ICE, Stby Gen	CNSI - COS	500	bhp	Existing	✓	✓	✓	✓
COAT1	Coating	Spray Booth, CSB I	N/A	N/A	D44160	✓		✓	
LAB1	Wet Lab	Rehab Center	14,806	ft^2	Existing	✓	✓	✓	✓
LAB2	Wet Lab	Warren Hall	17,211	ft^2	Existing	✓	✓	Demolition	
LAB2	Wet Lab	Warren Hall	3,424	ft^2	Existing	✓	✓	Demolition	
LAB3	Wet Lab	Med Plza 200	2,218	ft^2	Existing	✓		✓	
LAB3	Wet Lab	Med Plza 300	2,091	ft^2	Existing	✓		✓	
LAB4	Wet Lab	Brain Rsch	26,691	ft^2	Existing	✓	✓	Demolition	
LAB4	Wet Lab	Cyclotrn Bio	1,584	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Dentistry	31,364	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Doris Stein	2,435	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Facmgmt-Chlr	87	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Factor	14,803	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Factor	16,493	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Gonda Center	23,667	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Health Sci	11,193	ft^2	Existing	✓	✓	Demolition	
LAB4	Wet Lab	Health Sci	89,382	ft^2	Existing	✓	✓	Demolition	
LAB4	Wet Lab	Jerry Lewis	8,818	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Jules Stein	5,688	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Life Science	40,576	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	M Davies CC	9,000	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Macdonaldlab	42,706	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Nueropsych	10,853	ft^2	Existing	✓	✓	Demolition	
LAB4	Wet Lab	Parkg St CHS	5,997	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Plant Phys	2,712	ft^2	Existing	✓	✓	Demolition	
LAB4	Wet Lab	Public Hlth	13,142	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Reed Resrch	10,105	ft^2	Existing	✓	✓	Demolition	

Source ID	Source Type	Location	Size	Units	Permit/ Status	Existing Scenario: Evaluated in Prioritization	Existing Scenario: Evaluated in HRA	LDRP Scenario: Evaluated in Prioritization	LDRP Scenario: Evaluated in HRA
LAB4	Wet Lab	Clinical Res	4,116	ft^2	Existing	✓	✓	✓	✓
LAB4	Wet Lab	Vivarium	8,020	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Boelter Hall	11,423	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Boelter Hall	34,574	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Botany	8,829	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Engr Bldg I	1,262	ft^2	Existing	✓	✓	Demolition	
LAB5	Wet Lab	Engr Bldg I	18,623	ft^2	Existing	✓	✓	Demolition	
LAB5	Wet Lab	Engr Bldg 4	44,275	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Franz Hall	8,377	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Geology	2,610	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Geology	22,449	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Knudsen Hall	26,817	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Math Science	2,021	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Moleculr Sci	33,513	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Moleculr Sci	10,741	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Slichter	1,712	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Slichter	6,947	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Young Hall	50,790	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Young Hall	5,987	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Boyer Hall	10,753	ft^2	Existing	✓	✓	✓	✓
LAB5	Wet Lab	Boyer Hall	20,922	ft^2	Existing	✓	✓	✓	✓
LAB6	Wet Lab	Powell Lib	264	ft^2	Existing	✓		✓	
LAB7	Wet Lab	Fowler Musm	5,937	ft^2	Existing	✓		✓	
LAB8	Wet Lab	Bunche Hall	1,660	ft^2	Existing	✓		✓	
LAB8	Wet Lab	Perloff Hall	825	ft^2	Existing	✓		✓	
LAB9	Wet Lab	Macgowan	8,836	ft^2	Existing	✓	✓	✓	✓
LAB9	Wet Lab	Melnitz Hall	2,692	ft^2	Existing	✓	✓	✓	✓
LAB10	Wet Lab	Ashe Center	762	ft^2	Existing	✓		✓	
LAB12	Wet Lab	West Med Ph Manf	606	ft^2	Existing	✓		✓	
LAB13	Wet Lab	WW Hosp	12,928	ft^2	Existing	✓	✓	✓	✓
LAB14	Wet Lab	Env Svcs Fac	5,855	ft^2	Existing	✓		✓	
LAB15	Wet Lab	Phy & Ast/Knudsen	25,300	ft^2	Existing	✓	✓	✓	✓
LAB16	Wet Lab	Ambulatory	23,500	ft^2	Proposed			✓	✓
LAB17	Wet Lab	PPRB	200	ft^2	Existing	✓		✓	
LAB18	Wet Lab	HSSRB #1	32,000	ft^2	Existing	✓	✓	✓	✓
LAB19	Wet Lab	HSSRB #2	55,590	ft^2	Existing	✓	✓	✓	✓
LAB20	Wet Lab	Luck Ctr	36,352	ft^2	Existing	✓	✓	✓	✓
LAB21	Wet Lab	HSSRB #3	65,000	ft^2	Existing	✓	✓	✓	✓
LAB22	Wet Lab	Stein 3	36,000	ft^2	Proposed			✓	✓
LAB23	Wet Lab	Engr. I Replacement	21,711	ft^2	Existing	✓	✓	✓	✓
LAB24	Wet Lab	CNSI - COS	49,000	ft^2	Existing	✓	✓	✓	✓

Table 2-3. Summary of UCLA Source Prioritization Scores and Results for the Existing Scenario

Number	Evaluated In HRA	Cancer > 0.25	Chronic NC > 1	Acute NC > 1	Cancer Score	Cancer %	Chronic NC Score	Chronic NC %	Acute NC Score	Acute NC %
ICE10	✓	Y	N	N	42.30	31.87	0.29	0.86	1.00	1.76
TURB1	✓	Y	Y	Y	16.34	12.31	8.66	25.84	10.13	17.92
TURB2	✓	Y	Y	Y	16.34	12.31	8.66	25.84	10.13	17.92
LAB4	✓	Y	Y	Y	8.70	6.55	5.48	16.36	4.04	7.14
LAB5	✓	Y	Y	Y	7.39	5.57	4.66	13.91	3.43	6.07
ICE42	✓	Y	N	N	2.70	2.03	0.02	0.05	0.23	0.41
ICE7	✓	Y	N	N	1.79	1.35	0.01	0.04	0.11	0.19
ICE38	✓	Y	N	N	1.66	1.25	0.01	0.03	0.57	1.00
ICE39	✓	Y	N	N	1.62	1.22	0.01	0.03	0.57	1.00
ICE40	✓	Y	N	N	1.56	1.17	0.01	0.03	0.57	1.00
LAB21	✓	Y	N	N	1.49	1.12	0.94	2.80	0.69	1.22
ICE41	✓	Y	N	N	1.47	1.11	0.01	0.03	0.57	1.00
ICE48	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.11
ICE49	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.11
ICE51	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.11
ICE52	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.11
ICE53	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.11
ICE54	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.11
ICE56	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.11
ICE5	✓	Y	N	N	1.36	1.03	0.01	0.03	0.88	1.56
LAB19	✓	Y	N	N	1.27	0.96	0.80	2.40	0.59	1.05
LAB24	✓	Y	N	N	1.12	0.85	0.71	2.11	0.52	0.92
ICE6	✓	Y	N	N	1.09	0.82	0.01	0.02	0.71	1.25
ICE3	✓	Y	N	N	0.84	0.63	0.01	0.02	0.54	0.96
LAB20	✓	Y	N	N	0.83	0.63	0.53	1.57	0.39	0.68
ICE8	✓	Y	N	N	0.79	0.60	0.01	0.02	0.51	0.91
ICE9	✓	Y	N	N	0.79	0.60	0.01	0.02	0.51	0.91
ICE1	✓	Y	N	N	0.79	0.60	0.01	0.02	0.11	0.20
LAB18	✓	Y	N	N	0.73	0.55	0.46	1.38	0.34	0.60
ICE46	✓	Y	N	N	0.62	0.47	0.00	0.01	0.16	0.29
LAB15	✓	Y	N	N	0.58	0.44	0.37	1.09	0.27	0.48
ICE34	✓	Y	N	N	0.56	0.42	0.00	0.01	0.28	0.49
ICE17	✓	Y	N	N	0.55	0.41	0.00	0.01	0.11	0.20
LAB23	✓	Y	N	N	0.50	0.37	0.31	0.94	0.23	0.41
ICE37	✓	Y	N	N	0.48	0.36	0.00	0.01	0.64	1.14
ICE35	✓	Y	N	N	0.48	0.36	0.00	0.01	0.64	1.14
LAB2	✓	Y	N	N	0.47	0.36	0.30	0.89	0.22	0.39
DISP1	✓	Y	N	N	0.41	0.31	0.00	0.01	0.04	0.08
ICE2	✓	Y	N	N	0.40	0.30	0.00	0.01	0.60	1.07
ICE20	✓	Y	N	N	0.38	0.29	0.00	0.01	0.11	0.20
ICE11	✓	Y	N	N	0.37	0.28	0.00	0.01	0.26	0.46
ICE44	✓	Y	N	N	0.35	0.26	0.00	0.01	0.13	0.24
LAB1	✓	Y	N	N	0.34	0.26	0.21	0.64	0.16	0.28
ICE36	✓	Y	N	N	0.33	0.25	0.00	0.01	0.54	0.95
LAB13	✓	Y	N	N	0.30	0.22	0.19	0.56	0.14	0.24
ICE22	✓	Y	N	N	0.29	0.21	0.00	0.01	0.11	0.20
ICE16	✓	Y	N	N	0.27	0.20	0.00	0.01	0.18	0.33
LAB9	✓	Y	N	N	0.26	0.20	0.17	0.50	0.12	0.22

Number	Evaluated In HRA	Cancer > 0.25	Chronic NC > 1	Acute NC > 1	Cancer Score	Cancer %	Chronic NC Score	Chronic NC %	Acute NC Score	Acute NC %
ICE18		N	N	N	0.20	0.15	0.00	0.00	0.83	1.47
LAB7		N	N	N	0.14	0.10	0.09	0.26	0.06	0.11
LAB14		N	N	N	0.13	0.10	0.08	0.25	0.06	0.11
ICE21		N	N	N	0.13	0.10	0.00	0.00	0.40	0.71
LAB3		N	N	N	0.10	0.07	0.06	0.19	0.05	0.08
ICE29		N	N	N	0.09	0.06	0.00	0.00	0.17	0.30
ICE12		N	N	N	0.07	0.05	0.00	0.00	0.71	1.26
ICE28		N	N	N	0.07	0.05	0.00	0.00	0.39	0.68
ICE45		N	N	N	0.06	0.05	0.00	0.00	0.22	0.39
LAB8		N	N	N	0.06	0.04	0.04	0.11	0.03	0.05
ICE19		N	N	N	0.05	0.04	0.00	0.00	0.60	1.07
BOIL1		N	N	N	0.05	0.03	0.05	0.16	0.22	0.39
BOIL2		N	N	N	0.05	0.03	0.05	0.16	0.22	0.39
ICE23		N	N	N	0.04	0.03	0.00	0.00	0.27	0.47
BOIL5	✓	N	N	Y	0.04	0.03	0.03	0.10	1.52	2.70
ICE14		N	N	N	0.04	0.03	0.00	0.00	0.27	0.47
ICE47		N	N	N	0.03	0.02	0.00	0.00	0.16	0.29
BOIL4		N	N	N	0.02	0.02	0.03	0.10	0.57	1.02
ICE26		N	N	N	0.02	0.02	0.00	0.00	0.27	0.48
ICE27		N	N	N	0.02	0.01	0.00	0.00	0.27	0.48
LAB10		N	N	N	0.02	0.01	0.01	0.03	0.01	0.01
ICE24		N	N	N	0.02	0.01	0.00	0.00	0.15	0.27
ICE15		N	N	N	0.01	0.01	0.00	0.00	0.63	1.11
LAB12		N	N	N	0.01	0.01	0.01	0.03	0.01	0.01
ICE33		N	N	N	0.01	0.01	0.00	0.00	0.59	1.05
ICE13		N	N	N	0.01	0.01	0.00	0.00	0.38	0.67
ICE31		N	N	N	0.01	0.01	0.00	0.00	0.22	0.38
BOIL3		N	N	N	0.01	0.00	0.01	0.02	0.12	0.21
ICE4		N	N	N	0.01	0.00	0.00	0.00	0.11	0.19
LAB6		N	N	N	0.01	0.00	0.00	0.01	0.00	0.00
ICE32		N	N	N	0.01	0.00	0.00	0.00	0.22	0.38
LAB17		N	N	N	0.00	0.00	0.00	0.01	0.00	0.00
ICE30		N	N	N	0.00	0.00	0.00	0.00	0.16	0.28
ICE25		N	N	N	0.00	0.00	0.00	0.00	0.00	0.00
COAT1		N	N	N	0.00	0.00	0.07	0.21	0.14	0.25
		Total Score for Sources to Include in HRA:			131.2	98.9	33.0	98.5	48.0	84.9
		Total Score for Sources to Omit from HRA:			1.5	1.1	0.5	1.5	8.5	15.1
		Total Score Overall:			**132.7**	**100.0**	**33.5**	**100.0**	**56.5**	**100.0**

Table 2-4. Summary of UCLA Source Prioritization Scores and Results for the LRDP Scenario

Number	Evaluated In HRA	Cancer >0.25	Chronic Non-cancer >1	Acute Non-cancer >1	Cancer Score	Cancer %	Chronic Non-cancer Score	Chronic Non-cancer %	Acute Non-cancer Score	Acute Non-cancer %
ICE10	✓	Y	N	N	42.30	31.90	0.29	0.91	1.00	1.77
TURB1	✓	Y	Y	Y	16.34	12.32	8.66	27.38	10.13	18.02
TURB2	✓	Y	Y	Y	16.34	12.32	8.66	27.38	10.13	18.02
LAB5	✓	Y	Y	Y	6.94	5.23	4.37	13.83	3.22	5.73
LAB4	✓	Y	Y	Y	5.24	3.95	3.30	10.44	2.43	4.32
ICE42	✓	Y	N	N	2.70	2.04	0.02	0.06	0.23	0.41
ICE7	✓	Y	N	N	1.79	1.35	0.01	0.04	0.11	0.19
ICE38	✓	Y	N	N	1.67	1.26	0.01	0.04	0.57	1.01
ICE39	✓	Y	N	N	1.62	1.22	0.01	0.04	0.57	1.01
ICE40	✓	Y	N	N	1.56	1.18	0.01	0.03	0.57	1.01
LAB21	✓	Y	N	N	1.49	1.12	0.94	2.97	0.69	1.23
ICE41	✓	Y	N	N	1.48	1.11	0.01	0.03	0.57	1.01
ICE48	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE49	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE50	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE51	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE52	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE53	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE54	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE55	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE56	✓	Y	N	N	1.47	1.11	0.01	0.03	0.63	1.12
ICE5	✓	Y	N	N	1.36	1.03	0.01	0.03	0.88	1.57
LAB19	✓	Y	N	N	1.27	0.96	0.80	2.54	0.59	1.05
LAB24	✓	Y	N	N	1.12	0.85	0.71	2.24	0.52	0.93
ICE6	✓	Y	N	N	1.09	0.82	0.01	0.02	0.71	1.26
ICE3	✓	Y	N	N	0.84	0.63	0.01	0.02	0.54	0.97
LAB20	✓	Y	N	N	0.83	0.63	0.53	1.66	0.39	0.69
LAB22	✓	Y	N	N	0.82	0.62	0.52	1.64	0.38	0.68
ICE8	✓	Y	N	N	0.79	0.60	0.01	0.02	0.51	0.91
ICE9	✓	Y	N	N	0.79	0.60	0.01	0.02	0.51	0.91
ICE1	✓	Y	N	N	0.79	0.60	0.01	0.02	0.11	0.20
LAB18	✓	Y	N	N	0.73	0.55	0.46	1.46	0.34	0.61
ICE46	✓	Y	N	N	0.62	0.47	0.00	0.01	0.16	0.29
LAB15	✓	Y	N	N	0.58	0.44	0.37	1.16	0.27	0.48
ICE34	✓	Y	N	N	0.56	0.42	0.00	0.01	0.28	0.49

Number	Evaluated In HRA	Cancer >0.25	Chronic Non-cancer >1	Acute Non-cancer >1	Cancer Score	Cancer %	Chronic Non-cancer Score	Chronic Non-cancer %	Acute Non-cancer Score	Acute Non-cancer %
ICE17	✓	Y	N	N	0.55	0.41	0.00	0.01	0.11	0.20
LAB16	✓	Y	N	N	0.54	0.41	0.34	1.07	0.25	0.44
LAB23	✓	Y	N	N	0.50	0.38	0.31	0.99	0.23	0.41
ICE37	✓	Y	N	N	0.48	0.36	0.00	0.01	0.64	1.14
ICE35	✓	Y	N	N	0.48	0.36	0.00	0.01	0.64	1.14
DISP1	✓	Y	N	N	0.41	0.31	0.00	0.01	0.04	0.08
ICE2	✓	Y	N	N	0.40	0.30	0.00	0.01	0.60	1.08
ICE20	✓	Y	N	N	0.38	0.29	0.00	0.01	0.11	0.20
ICE11	✓	Y	N	N	0.37	0.28	0.00	0.01	0.26	0.47
ICE44	✓	Y	N	N	0.35	0.26	0.00	0.01	0.13	0.24
LAB1	✓	Y	N	N	0.34	0.26	0.21	0.68	0.16	0.28
ICE36	✓	Y	N	N	0.33	0.25	0.00	0.01	0.54	0.96
LAB13	✓	Y	N	N	0.30	0.22	0.19	0.59	0.14	0.24
ICE22	✓	Y	N	N	0.29	0.22	0.00	0.01	0.11	0.20
ICE16	✓	Y	N	N	0.27	0.20	0.00	0.01	0.18	0.33
LAB9	✓	Y	N	N	0.26	0.20	0.17	0.53	0.12	0.22
ICE18		N	N	N	0.20	0.15	0.00	0.00	0.83	1.48
LAB7		N	N	N	0.14	0.10	0.09	0.27	0.06	0.11
LAB14		N	N	N	0.13	0.10	0.08	0.27	0.06	0.11
ICE21		N	N	N	0.13	0.10	0.00	0.00	0.40	0.71
LAB3		N	N	N	0.10	0.07	0.06	0.20	0.05	0.08
ICE29		N	N	N	0.09	0.06	0.00	0.00	0.17	0.31
ICE12		N	N	N	0.07	0.05	0.00	0.00	0.71	1.26
ICE28		N	N	N	0.07	0.05	0.00	0.00	0.39	0.68
ICE45		N	N	N	0.06	0.05	0.00	0.00	0.22	0.40
LAB8		N	N	N	0.06	0.04	0.04	0.11	0.03	0.05
ICE19		N	N	N	0.05	0.04	0.00	0.00	0.60	1.08
BOIL1		N	N	N	0.05	0.03	0.05	0.16	0.22	0.40
BOIL2		N	N	N	0.05	0.03	0.05	0.16	0.22	0.40
ICE23		N	N	N	0.04	0.03	0.00	0.00	0.27	0.47
BOIL5	✓	N	N	Y	0.04	0.03	0.03	0.11	1.52	2.71
ICE14		N	N	N	0.04	0.03	0.00	0.00	0.27	0.47
BOIL4		N	N	N	0.02	0.02	0.03	0.11	0.57	1.02
ICE26		N	N	N	0.02	0.02	0.00	0.00	0.27	0.48
ICE27		N	N	N	0.02	0.01	0.00	0.00	0.27	0.48
LAB10		N	N	N	0.02	0.01	0.01	0.03	0.01	0.01

Number	Evaluated In HRA	Cancer >0.25	Chronic Non-cancer >1	Acute Non-cancer >1	Cancer Score	Cancer %	Chronic Non-cancer Score	Chronic Non-cancer %	Acute Non-cancer Score	Acute Non-cancer %
ICE24		N	N	N	0.02	0.01	0.00	0.00	0.15	0.27
ICE15		N	N	N	0.01	0.01	0.00	0.00	0.63	1.11
LAB12		N	N	N	0.01	0.01	0.01	0.03	0.01	0.01
ICE33		N	N	N	0.01	0.01	0.00	0.00	0.59	1.06
ICE13		N	N	N	0.01	0.01	0.00	0.00	0.38	0.67
ICE31		N	N	N	0.01	0.01	0.00	0.00	0.22	0.39
BOIL3		N	N	N	0.01	0.00	0.01	0.02	0.12	0.21
ICE4		N	N	N	0.01	0.00	0.00	0.00	0.11	0.19
LAB6		N	N	N	0.01	0.00	0.00	0.01	0.00	0.00
ICE32		N	N	N	0.01	0.00	0.00	0.00	0.22	0.39
LAB17		N	N	N	0.00	0.00	0.00	0.01	0.00	0.00
ICE30		N	N	N	0.00	0.00	0.00	0.00	0.16	0.29
ICE25		N	N	N	0.00	0.00	0.00	0.00	0.00	0.00
COAT1		N	N	N	0.00	0.00	0.07	0.22	0.14	0.25
LAB2		N	N	N	0.00	0.00	0.00	0.00	0.00	0.00
Total Score for Sources to Include in HRA:					131.2	98.9	31.1	98.4	47.9	85.2
Total Score for Sources to Omit from HRA:					1.5	1.1	0.5	1.6	8.3	14.8
Total Score Overall:					**132.6**	**100.0**	**31.6**	**100.0**	**56.2**	**100.0**

Table 2-5. Health Effects Categories for Substances Evaluated in the HRA for Both Scenarios

Substance	Assessment of Chemical Exposure (ACE) ID	Cancer	Noncancer	
			Acute	Chronic
Acetaldehyde	1	✓	✓	
Acetonitrile	191		✓	✓
Acrolein	3		✓	✓
Antimony	192		✓	✓
Arsenic	10	✓	✓	✓
Benzene	13	✓	✓	✓
Benzyl Chloride	16	✓	✓	✓
Beryllium	17	✓	✓	✓
Bromine Compounds	19		✓	✓
Butadiene, 1,3-	20	✓	✓	
Butyl Alcohol, Tert-	193		✓	✓
Cadmium	22	✓	✓	✓
Carbon Tetrachloride	25	✓	✓	✓
Chlorobenzene	29		✓	
Chloroform	30	✓	✓	✓
Chromium Hexavalent	36	✓	✓	✓
Copper	38		✓	✓
Dichlorobenzene, p-	48	✓	✓	✓
Diesel Exhaust (particulates)	194	✓	✓	
Dimethylformamide	195		✓	✓
Dioxane, 1,4-	54	✓	✓	✓
Epichlorohydrin	57	✓	✓	✓
Ethanol	196		✓	✓
Ethyl Acetate	197		✓	✓
Ethyl Benzene	167		✓	✓
Ethyl Ether	198		✓	✓
Ethylene Dichloride	61	✓	✓	
Ethylene Glycol Butyl Ether	64		✓	✓
Formaldehyde	70	✓	✓	✓
Glutaraldehyde	72		✓	✓
Hexane	168		✓	✓
Hydrazine	77	✓	✓	✓
Hydrogen Chloride	78		✓	✓
Hydrogen Fluoride	80		✓	✓
Isopropyl Alcohol	164		✓	✓
Lead	83	✓	✓	✓
Manganese	85		✓	✓
Mercury Compounds	87		✓	✓
Methanol	88		✓	✓
Methyl Bromide	90		✓	✓
Methyl Tert Butyl Ether	165	✓	✓	
Methylene Chloride	96	✓	✓	✓
Naphthalene	110		✓	✓

Substance	Assessment of Chemical Exposure (ACE) ID	Cancer	Noncancer	
			Acute	Chronic
Nickel	111	✓	✓	✓
PAH (carcinogenic)	130	✓	✓	✓
Perchloroethylene	122	✓	✓	✓
Phosgene	125		✓	✓
Propylene	134		✓	
Propylene Oxide	135	✓	✓	✓
Pyridine	199		✓	✓
Selenium	137		✓	✓
Tetrahydrofuran	200		✓	✓
Toluene	145		✓	✓
Trichloroethane, 1,1,1-	91		✓	✓
Trichloroethylene	146	✓	✓	✓
Triethylamine	201		✓	✓
Vinyl Chloride	149	✓	✓	✓
Vinylidene Chloride	150		✓	
Xylenes	151		✓	✓
Zinc	152		✓	✓

3.0 EXPOSURE ASSESSMENT

The HRA addresses inhalation exposure for all chemicals included in this study. Noninhalation exposure pathways are addressed for those substances identified in the AB 2588 guidance documents as requiring multipathway analysis. The noninhalation pathways evaluated were soil ingestion, dermal absorption, mother's milk, and plant ingestion.

The exposure assessment process uses the emission estimates derived in the initial steps of the risk assessment and predicts the potential dose of each chemical to individuals in the surrounding population. The exposure assessment model, ACE 2588, was developed specifically for conducting risk assessments in compliance with AB 2588. The ACE 2588 model was used to estimate adverse health effects in this HRA.

3.1 AIR DISPERSION MODELING

Air dispersion modeling was conducted to determine the pollutant ground-level concentrations at off- and on-campus locations. The emissions from the routine campus-wide operations at UCLA are released into the atmosphere through point and area sources. The methods used in modeling toxic air pollutants from these sources are consistent with procedures outlined in the CAPCOA AB 2588 guidelines. Additionally, the modeling methodology meets the EPA and California Air Resources Board (CARB) requirements for air quality modeling. The dispersion modeling results can be found in Appendix C.

3.1.1 Model Selection and Options

Several factors were considered in the selection of the appropriate dispersion model for use in the air quality modeling. The UCLA campus is located in Los Angeles, north of Westwood Village, where the terrain is hilly with increasing elevation to the north and northeast. Consequently, the model selected for conducting the modeling required the capability of predicting impacts at simple and complex terrain locations.

The Industrial Source Complex Short Term (ISCST3) model (version 02035) is considered an appropriate model for receptors in simple and complex terrain. Because of the hilly terrain around the campus and its compatibility with existing HRA software, the ISCST3 model was selected to predict ambient impacts from routine campus-wide operations at UCLA. The recommended options listed in the SCAQMD Supplemental Guidelines for Preparing Risk Assessments to Comply with the Air Toxics "Hot Spots" Information and Assessment Act [AB2588] (SCAQMD, 1996) were used for this analysis.

3.1.2 Model Input

3.1.2.1 Meteorological Data

The SCAQMD has required all facilities to utilize a single year of local meteorological data from the year 1981. It is considered that weather conditions during this time represent worst-case dispersion and, hence, will result in a conservative estimate of impacts.

Data collected at the West Los Angeles monitoring station (surface station I.D. 52158 and upper air station I.D. No. 91919) were selected as the most appropriate data set for the UCLA modeling. West Los Angeles data include measurements of wind speed, wind direction, surface temperature, and stability. Upper air data from near Los Angeles International Airport were used for determining mixing height. Hourly mixing heights were generated using EPA's RAMMET program. RAMMET uses an interpolation scheme that is described in detail in the Industrial Source Complex Dispersion Model User's Guide, (EPA, 1995). The same meteorological data were used in both Scenarios.

3.1.2.2 Model Options and Parameters

Table 3-1 shows the model input options that were used in the ISCST3 modeling. All options were selected as recommended in the SCAQMD Supplemental Guidelines for Preparing Risk Assessments to Comply with the Air Toxics "Hot Spots" Information and Assessment Act (SCAQMD, 1996). The same model options were evaluated in both Scenarios.

3.1.2.3 Modeling Grid

Off- and on-campus receptors were used in the modeling. The off-campus receptors were represented utilizing various grid spacing based on the distances from the campus boundary. The spacing was the smallest near the campus boundary and increased moving away from the boundary. The off-campus grid spacing was as follows:

- 100-meter spacing along the campus boundary and extending out to 500 meters in the areas of the likely maximum impacts (east and west sides of the campus boundary);
- 500-meter spacing out to 2,000 meters; and
- 1000-meter spacing out to 5,000 meters.

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 and were modeled at their respective locations.

The receptors utilized the Universal Transverse Mercator (UTM) coordinate system. The receptor elevations were obtained electronically from the United States Geological Survey 7.5-minute Digital Elevation Model (DEM) data from the Internet at ftp://130.166.124.228/ca_dems.2/clickable/overview.htm. The receptor locations near the campus are presented in Figure 3-1. The receptor locations for the complete grid are provided in Figure 3-2. The on-campus receptor locations are shown in Figure 3-3. The same receptors locations were evaluated in both Scenarios.

3.1.2.4 Modeled Sources

The sources evaluated in the HRA discussed in Section 2.1 were modeled as point and area sources. The cogeneration gas turbines, boiler, and ICEs were modeled as point sources at their respective locations. The modeled emissions by source and by pollutant for each Scenario are presented in Appendix A. The modeled point source parameters for both Scenarios are presented in Table 3-2. The gasoline dispensing and lab chemical usage were modeled as area sources. The gasoline dispensing was modeled at its respective location with an area representative of where the evaporative emissions would likely originate. The lab chemical usage was modeled from different areas across campus based on the location of the lab. The labs were aggregated, where appropriate, based on their geographic locations. The lab emissions were assumed to be released from the top of the buildings. The modeled area source parameters are presented in Table 3-3. The locations of the modeled point and area sources are presented in Figures 3-4 and 3-5, respectively.

3.1.3 Deposition

A default procedure recommended by SCAQMD and CARB was used to estimate the deposition flux of particulate-borne pollutants on ground surfaces. Under this procedure, a default settling velocity (in meters per second) is multiplied by the ground level concentration (in micrograms per cubic meter) to yield a flux term with units of mass per square meter per second. This procedure has the primary disadvantage of failing to conserve mass (i.e., pollutant mass assumed to be deposited also stays in the plume), resulting in a double counting of particulate impacts at distant receptors.

The CAPCOA AB 2588 guidelines recommend a default settling velocity of 5 centimeters per second for uncontrolled sources and 2 centimeters per second for controlled sources. The 2-centimeter per second value was used in the modeling since PM sources are either controlled, result from the combustion of gas or liquid fuels that would lead to fine aerosol emissions, or are emitted in other ways that would lead to fine aerosol particles that are better represented by the lower settling velocity.

3.1.4 Aerodynamic Wake Effects

The ISCST3 model evaluated the building aerodynamic wake effects on plume concentrations. The Building Profile Input Program (BPIP), Version 95086, was used to generate direction-specific building dimensions for use as input to the ISCST3 model. This program considers buildings as potential candidates for producing building wake effects on dispersion using both the Huber-Snyder and the Schulman-Scire algorithms, as appropriate. BPIP downwash results are included in the electronic files in Appendix E.

3.2 MULTIPATHWAY ANALYSIS

In identifying pathways that could potentially lead to exposure, the type of pollutants emitted, land use in the area, and lifestyle (i.e., urban versus rural or agricultural) must be considered. The following pathways have been identified as potential exposure routes for the routine campus-wide emissions:

- Inhalation;
- Soil ingestion;
- Plant ingestion;
- Dermal exposure; and
- Mother's milk.

Other pathways listed in the CAPCOA AB 2588 guidelines for consideration, such as water ingestion, dairy and beef, and poultry and eggs were not viable exposure routes for UCLA due to the types of substances emitted and surrounding land use. Table 3-4 presents the substances evaluated in both Scenarios and whether the substances are evaluated for inhalation-only exposure or multipathway exposures.

3.2.1 Exposure Calculations

This subsection presents a brief discussion of the calculations for each exposure pathway.

3.2.2 Inhalation Exposure

Exposure to substances in ambient air occurs through inhalation of both gases and PM. For the purpose of this assessment, particulate emissions are considered to be entirely absorbed in the lungs, yielding a conservative estimate of exposure. In reality, only a fraction of the inhaled particulates would deposit in the lungs and be absorbed. Inhalation exposure is determined by multiplying the estimated concentration in air by an average daily inhalation volume specified by the CAPCOA AB 2588 guidelines (20 cubic meters of air per day) and dividing that quantity by body weight (assumed to be 70 kilograms).

3.2.3 Soil Ingestion

Pollutants emitted in the particulate phase are subject to deposition onto ground surfaces and mixing in the uppermost layer of soil. These particulates include metals and semivolatile organics. Soil concentration calculations assume a constant deposition rate onto soil and an even mixing of emissions into the top one centimeter of soil. Loss mechanisms, primarily degradation over time, are considered in estimating the soil concentration of certain organic emissions over the period of interest.

Exposure from incidental ingestion of soil is estimated by multiplying the soil concentration estimate of each substance by a soil ingestion rate specified by the CAPCOA AB 2588 guidelines and dividing by the body weight. The soil ingestion rate is an age-weighted value that reflects higher consumption rates for a child and significantly less consumption for an adult.

3.2.4 Plant Ingestion

Locally grown produce, either from commercial agriculture or family gardens, presents a secondary route of exposure to emissions. Since there is no appreciable commercial agriculture near the UCLA campus, exposure via plant ingestion is limited to the consumption of home-grown garden produce.

Particulate emissions can accumulate in edible garden produce from direct deposition onto plant surfaces and through absorption by the root system. The calculations for determining the deposition component of the concentration in the produce considers the deposition rate, an interception fraction, and removal of particulates from weathering (i.e., wind, rain, irrigation, etc.). The interception fraction corresponds to the amount of particulate depositing on the garden area that actually contacts exposed edible produce. Concentrations in the produce due to root uptake from the garden soil are estimated by multiplying a root uptake factor, which relates the concentration of a substance in plant tissue to that in soil water, by the estimated soil concentration. Under the CAPCOA methodology, root uptake contributes to pollutant concentrations in produce grown above, as well as below, ground. The procedure for estimating soil concentrations is the same as for the soil ingestion pathway, but assumes a 15-centimeter mixing depth (versus a one centimeter mixing depth used for soil ingestion and dermal contact exposure pathways).

Human exposure is estimated by multiplying plant concentrations by the daily ingestion rate of garden produce. CAPCOA default values for total fruit, vegetable, and grain consumption are 250 grams per day for aboveground produce and 50 grams per day for below-ground produce.

CAPCOA provides default interception fractions for leafy crops (e.g., lettuce, broccoli, spinach, etc.) and vine crops (e.g., tomatoes, beans, squash, etc.). These respective values, 20% and 10%, were weighed using the same data to determine the homegrown produce ingestion rate.

3.2.5 Dermal Exposure

Dermal exposure results when soil containing deposited particulate-borne pollutants contacts the skin and these pollutants are absorbed into the body. The daily exposure rate was calculated by multiplying the soil concentration of each pollutant by an estimate of the exposed skin surface area, amount of soil on the skin, and a chemical-specific absorption rate. The CAPCOA AB 2588 guidelines provide default estimates of skin area, soil contact rate, and absorption rate. The skin area in contact with soil is consistent with the southern California climate.

3.2.6 Total Exposure

The total daily exposure rate for each emitted substance is calculated by summing the individual exposure for each pathway. These total daily exposure rates are used to assess the potential health risk in Section 5.0.

3.3 OFF- AND ON-CAMPUS EXPOSURE

The CAPCOA guidelines require the evaluation of potential health impacts from a facility at offsite residences and workplaces. Since the UCLA campus is not a typical "facility" with fenced boundaries, the results for this HRA are based on off- and on-campus exposure and risk calculations. The off-campus exposure was calculated similar to CAPCOA's exposure and risk calculations for a hypothetical residential maximally exposed individual (MEI). The off-campus MEI is assumed to live at the point of highest toxicity-weighted concentration of facility emissions, in a residentially zoned area, for 24 hours per day, 365 days per year, for 70 continuous years. The MEI concept ensures that exposure will not be underestimated because time spent at work, on vacation, commuting locally, or moving from one residence to another would otherwise reduce the actual exposure to emissions from the UCLA campus. The on-campus exposure was calculated the same as the off-campus exposure, but only on-campus locations characterized as sensitive receptors such as hospitals, day care centers, schools, and residential dormitories were included in the analysis. The determination of other MEIs (such as occupational) was not considered necessary in this HRA because the locations of the likely maximum impacts (i.e., east and west sides of the campus boundary) are residential areas. If one were to calculate an occupational MEI in this HRA, the results would likely be lower ($<1.0 \times 10^{-6}$) than the health risks presented in this HRA since persons would only be present at occupational locations 8 hours per day (instead of 24), 260 days per year (instead of 365), for 46 years (instead of 70).

3.4 ZONE OF ANALYSIS

Under CAPCOA and SCAQMD guidelines, the zone of analysis (ZOA) for the carcinogenic risk assessment encompasses the area subject to an added lifetime cancer risk of greater than one in one million. In addition, the ZOA for the noncarcinogenic risk assessment encompasses the area subject to a hazard index (HI) greater than 0.5. In this HRA, some of the receptors had cancer risks greater than one in one million and, thus, a carcinogenic ZOA was defined. The carcinogenic ZOA extended off-campus approximately 1,500 meters to the east. However, all of the receptors had noncarcinogenic HIs less than 0.5. Thus, a noncarginogenic ZOA was not defined. The location of the carcinogenic ZOA is presented in Section 5.0.

3.5 SENSITIVE RECEPTORS

Sensitive receptors are locations where exposed individuals may be more sensitive to health effects than the general population. CAPCOA AB 2588 guidelines define sensitive receptors as hospitals, primary and secondary schools, day care centers, and nursing homes. In this HRA, sensitive receptors were identified within the carcinogenic ZOA. The results for the sensitive receptors are presented in Section 5.0.

Table 3-1. Dispersion Modeling Options Used for the UCLA HRA

Option Description	ISCST3 Model Option
Dispersion Coefficients	Urban
Vertical Potential Temperature Gradient (Kelvin/m)	0.02 for E Stability 0.035 for F Stability
Final Plume Rise	Used
Stack Tip Downwash	Used
Buoyancy – Induced Dispersion	Used
Concentrations During Calms Set	Not Used
Regulatory Default Option	Not Used
Anemometer Height	10.0 meters
Decay Coefficient	0.00
Year of Meteorology Used	1981
SCAQMD MET Designation	West LA

Table 3-2. Modeled Point Source Parameters in the UCLA HRA for Both Scenarios

Source ID	Source Type	Location	UTM Coordinates East (m)	North (m)	Elev (m)	Stack Ht (ft)	Stack Dia (in)	Exit Temp (°F)	Exit Velocity (feet/ second)
TURB1	Gas Turbine	Cogen Plant	366668	3770360	109.2	125	72	230	68
TURB2	Gas Turbine	Cogen Plant	366667	3770351	109.1	125	72	230	68
BOIL5	Boiler	Cogen Plant	366667	3770351	109.1	125	72	350	35
ICE1	ICE, Stby Gen	Ackerman Hall	366870	3770742	121.2	15	10	1020	133
ICE2	ICE, Stby Gen	Kerckhoff Hall	366896	3770670	126.6	8	8	1100	100
ICE3	ICE, Stby Gen	Covel	366349	3771026	126.5	8	8	1070	94
ICE5	ICE, Stby Gen	De Neve	366345	3770664	122.4	9	8	660	149
ICE6	ICE, Stby Gen	Hedrick Hall	366070	3771002	155.4	8	8	1050	86
ICE7	ICE, Stby Gen	Sproul Hall	366330	3770953	126.4	8	12	1020	92
ICE8	ICE, Stby Gen	Dykstra Hall	366342	3770664	122.8	8	8	1000	82
ICE9	ICE, Stby Gen	Rieber Hall	366137	3770831	143.7	8	8	1000	82
ICE10	ICE, Stby Gen	Cogen Plant	366701	3770359	108.6	50	12	915	155
ICE11	ICE, Stby Gen	Young Hall	367142	3770525	123.1	90	14	825	103
ICE16	ICE, Stby Gen	MSB	367102	3770411	122.0	114	20	825	0.003
ICE17	ICE, Stby Gen	STRB	366455	3769657	99.3	15	10	1020	133
ICE20	ICE, Stby Gen	UCPD	366725	3770411	110.6	15	10	1020	133
ICE22	ICE, Stby Gen	Medical Plaza Pk 1	366579	3770155	105.8	60	8	980	152
ICE34	ICE, Stby Gen	Gonda	366791	3770414	113.1	20	14	935	122
ICE35[a]	ICE, Stby Gen	Medical Plaza	366612	3770128	105.8	90	8	705	121
ICE36	ICE, Stby Gen	Medical Plaza (Roof)	366659	3770043	104.2	48	8	1070	94
ICE38[b]	ICE, Stby Gen	Medical Center	367051	3770114	107.8	12	12	937	100
ICE42	ICE, Stby Gen	Medical Center #5	367004	3770310	122.5	15	12	825	137
ICE44	ICE, Stby Gen	MRL	366865	3770337	116.4	3	12	937	100
ICE46	ICE, Stby Gen	SEAS	366840	3770537	114.4	130	12	825	137
ICE48	ICE, Stby Gen	Env Svcs Fac	366466	3770471	111.0	15	8	1011	123
ICE49	ICE, Stby Gen	Phy & Ast/Knudsen	367077	3770734	131.9	15	8	1011	123
ICE50[c]	ICE, Stby Gen	Ambulatory	366574	3770002	104.0	15	8	1011	123
ICE51	ICE, Stby Gen	HSSRB #1	366904	3770364	119.7	15	8	1011	123
ICE52	ICE, Stby Gen	HSSRB #2	367107	3770365	119.7	15	8	1011	123
ICE53	ICE, Stby Gen	Luck Ctr	367064	3770365	121.0	15	8	1011	123
ICE54	ICE, Stby Gen	HSSRB #3	366784	3770205	111.7	15	8	1011	123
ICE55[c]	ICE, Stby Gen	Stein 3	366783	3770141	111.0	15	8	1011	123
ICE56	ICE, Stby Gen	CNSI - COS	366977	3770452	125.4	15	8	1011	123

[a]Emissions from ICE37 added to and modeled from ICE35
[b]Emissions from ICE39, ICE40, and ICE41 added to and modeled from ICE38
[c]Included in the LRDP Scenario only

Table 3-3. Modeled Area Source Parameters in the UCLA HRA for Both Scenarios

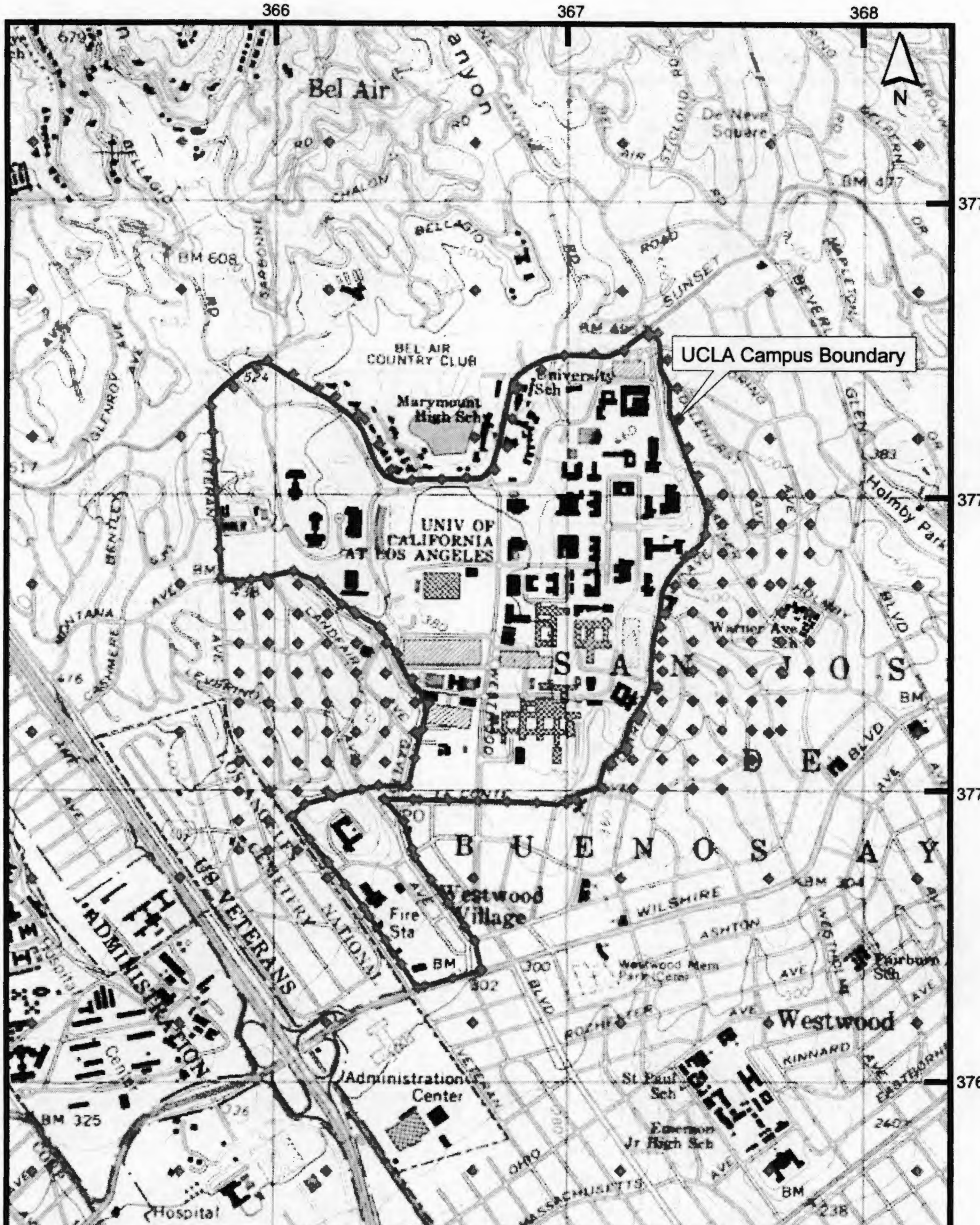
Source ID	Source Type	Location	UTM Coordinates East (m)	UTM Coordinates North (m)	Elev (m)	Release Ht (ft)	Length (ft)	Width (ft)	Angle (deg)
DISP1	Gasoline Disp	Fleet Services	366519	3770397	110.9	3.3	48	36	9
LAB1	Lab Chem Usage	Rehab Center	366373	3769607	100.1	50	Polygon		
LAB2[a]	Lab Chem Usage	Warren Hall	366286	3769794	110.3	50	Polygon		
LAB4	Lab Chem Usage	Health Sciences Area	366773	3770029	108.0	148	Polygon		
LAB5	Lab Chem Usage	Physical Sciences Area	367046	3770392	123.8	123	Polygon		
LAB9	Lab Chem Usage	Melnitz/Macgowan Halls	367203	3771274	137.6	30	Polygon		
LAB13	Lab Chem Usage	WW Hospital	366546	3770248	106.9	157	Polygon		
LAB15	Lab Chem Usage	Physics & Astronomy	367037	3770713	130.8	75	260	138	0
LAB16[b]	Lab Chem Usage	Ambulatory Care	366539	3769988	104.0	30	235	93	0
LAB18	Lab Chem Usage	HSSRB #1	366895	3770342	118.5	50	Polygon		
LAB19	Lab Chem Usage	HSSRB #2	367091	3770344	119.2	40	Polygon		
LAB20	Lab Chem Usage	Luck Research Center	367053	3770344	120.9	50	Polygon		
LAB21	Lab Chem Usage	HSSRB #3	366765	3770174	110.0	50	Polygon		
LAB22[b]	Lab Chem Usage	Stein 3	366766	3770116	109.0	30	Polygon		
LAB23	Lab Chem Usage	Engr I Replacement	366807	3770565	113.2	50	Polygon		
LAB24	Lab Chem Usage	CNSI - COS	366937	3770412	122.4	30	Polygon		

[a]Included in the Existing Scenario only
[b]Included in the LRDP Scenario only

Table 3-4. Exposure Pathways Evaluated for Each Substance in Both Scenarios

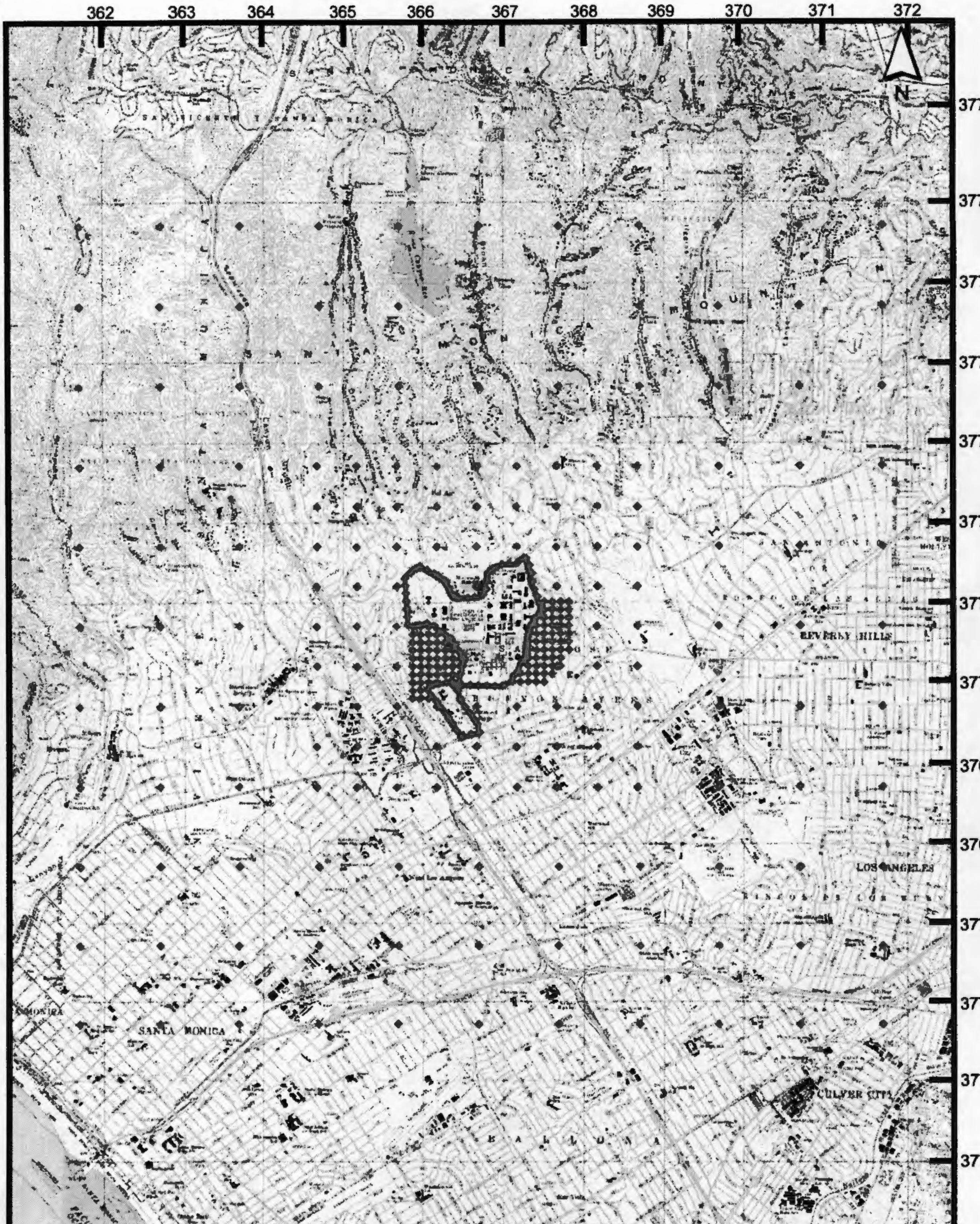
Substance	ACE ID	Inhalation	Multipathway
Acetaldehyde	1	✓	
Acetonitrile	191	✓	
Acrolein	3	✓	
Antimony	192	✓	
Arsenic	10	✓	✓
Benzene	13	✓	
Benzyl Chloride	16	✓	
Beryllium	17	✓	✓
Bromine Compounds	19	✓	
Butadiene, 1,3-	20	✓	
Butyl Alcohol, Tert-	193	✓	
Cadmium	22	✓	✓
Carbon Tetrachloride	25	✓	
Chlorobenzene	29	✓	
Chloroform	30	✓	
Chromium Hexavalent	36	✓	✓
Copper	38	✓	
Dichlorobenzene, p-	48	✓	
Diesel Exhaust (particulates)	194	✓	
Dimethylformamide	195	✓	
Dioxane, 1,4-	54	✓	
Epichlorohydrin	57	✓	
Ethanol	196	✓	
Ethyl Acetate	197	✓	
Ethyl Benzene	167	✓	
Ethyl Ether	198	✓	
Ethylene Dichloride	61	✓	
Ethylene Glycol Butyl Ether	64	✓	
Formaldehyde	70	✓	
Glutaraldehyde	72	✓	
Hexane	168	✓	
Hydrazine	77	✓	
Hydrogen Chloride	78	✓	
Hydrogen Fluoride	80	✓	
Isopropyl Alcohol	164	✓	
Lead	83	✓	✓
Manganese	85	✓	
Mercury Compounds	87	✓	✓
Methanol	88	✓	
Methyl Bromide	90	✓	
Methyl Tert Butyl Ether	165	✓	
Methylene Chloride	96	✓	
Naphthalene	110	✓	
Nickel	111	✓	
PAH (carcinogenic)	130	✓	✓
Perchloroethylene	122	✓	
Phosgene	125	✓	
Propylene	134	✓	
Propylene Oxide	135	✓	
Pyridine	199	✓	

Substance	ACE ID	Inhalation	Multipathway
Selenium	137	✓	
Tetrahydrofuran	200	✓	
Toluene	145	✓	
Trichloroethane, 1,1,1-	91	✓	
Trichloroethylene	146	✓	
Triethylamine	201	✓	
Vinyl Chloride	149	✓	
Vinylidene Chloride	150	✓	
Xylenes	151	✓	
Zinc	152	✓	



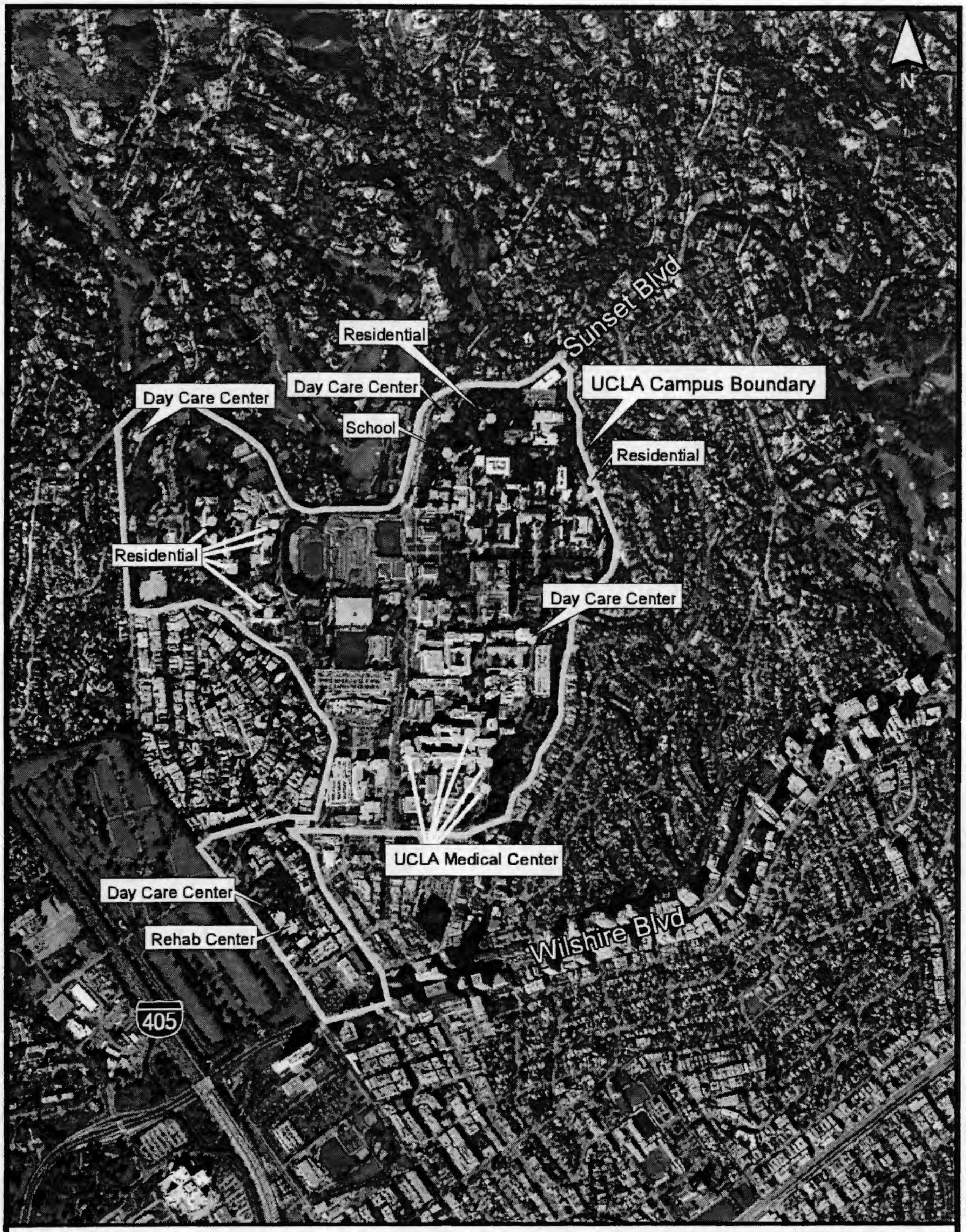
Off-campus Receptor Locations near UCLA

Project No: 57-00131199.01	Date: April 2002	Project: UCLA LRDP Update HRA	Figure 3-1



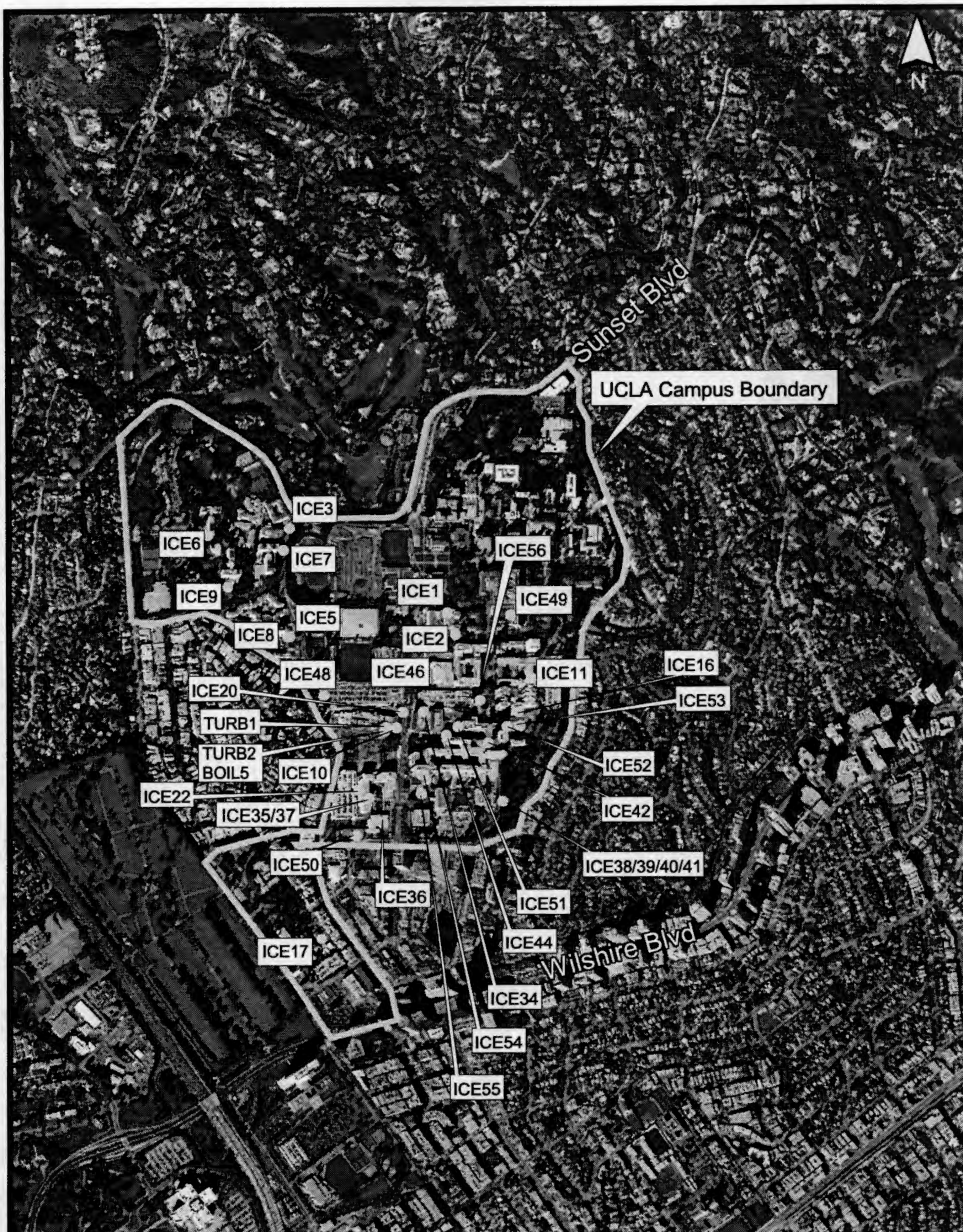
Complete Off-campus Receptor Grid

Project No: 57-00131199.01	Date: April 2002	Project: UCLA LRDP Update HRA	Figure 3-2



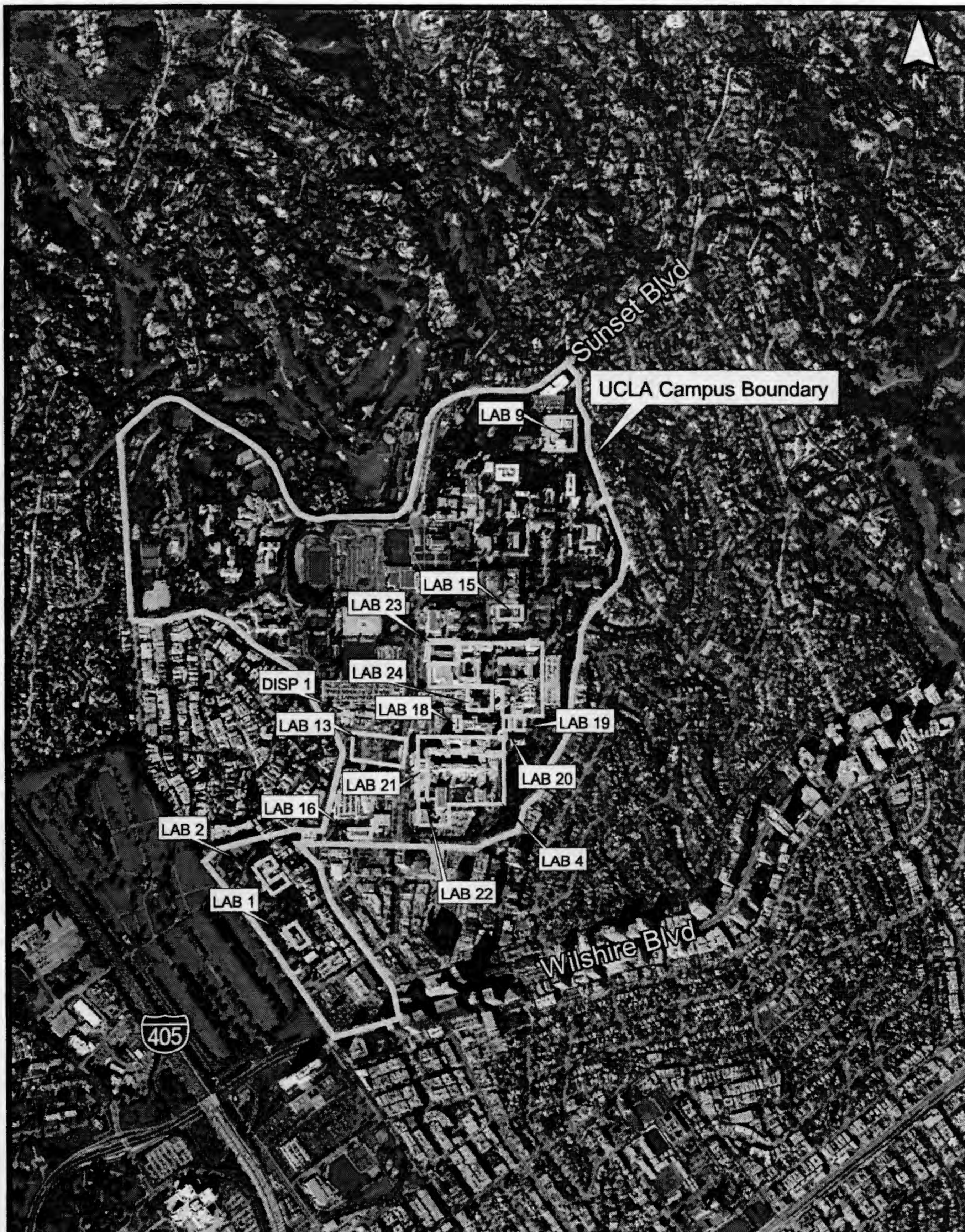
On-Campus Receptor Locations

Project No: 57-00131199.01	Date: April 2002	Project: UCLA LRDP Update HRA	Figure 3-3



Modeled Point Source Locations

Project No: 57-00131199.01	Date: April 2002	Project: UCLA LRDP Update HRA	Figure 3-4



Modeled Area Source Locations

Project No: 57-00131199.01	Date: April 2002	Project: UCLA LRDP Update HRA	Figure 3-5

4.0 DOSE-RESPONSE ASSESSMENT

Dose-response assessment has been defined as "an attempt to describe the expected human response to any given level of an exposure" (Hart and Turturro, 1986). Multiple governmental agencies and scientific organizations, such as the EPA, the National Academy of Science, the World Health Organization, and the California EPA OEHHA, have developed dose-response relationships for numerous chemicals. Dose-response assessment can produce three factors useful in evaluating potential adverse health effects: URFs for carcinogens, chronic noncancer RELs (chronic RELs) for substances producing noncarcinogenic toxic effects over a long-term exposure period, and acute noncancer RELs (acute RELs) for acutely toxic compounds.

4.1 UNIT RISK FACTORS

URFs define the theoretical risk of developing cancer as a result of continuous exposure to a carcinogen. The cancer risk resulting from low levels of exposure to a carcinogenic substance cannot be measured directly by either animal or human epidemiology studies. Therefore, mathematical models are used to extrapolate health effects observed in high dose animal studies or relatively high dose human epidemiology studies, to the low doses encountered in the environment. Generally, URFs determined from extrapolating from high to low doses represent upper-bound or worst-case estimates and are often calculated from factors estimated at 95% upper confidence limits.

The linearized multi-stage (LMS), low-dose extrapolation model is commonly used by the EPA's Carcinogen Assessment Group and California EPA to extrapolate data from animal studies to environmental exposure conditions in humans (EPA, 1986; DHS [California Department of Health Services], 1985). The LMS model estimates an upperbound estimate of risk that is consistent with health-conservative theories for mechanisms of carcinogenesis (EPA, 1986). When epidemiology data are used as the basis for estimating a URF, a variety of models are used. In all cases, the URFs are based on the assumption that any exposure to a carcinogen contributes to an individual's chance of developing cancer within a lifetime. The URFs used in this HRA are presented in Table 4-1 and are the most recent values published by OEHHA.

4.2 CHRONIC NONCANCER REFERENCE EXPOSURE LEVELS

Chronic RELs define a dose at which adverse health effects would be likely if an individual were exposed continuously to that dose over a long-term exposure period. Similar to carcinogens, chronic RELs are derived from animal studies or human epidemiological data and focus on the most sensitive animal or human data set and target organ or system (i.e., liver, kidney, central nervous system, etc.). Different laboratory animals may be used to test the toxicity of a particular substance. Several different target organs are typically examined. The study yielding the lowest effect level would be used as the basis for developing the chronic REL from animal data. Chronic RELs are used to evaluate exposures to noncarcinogens as well as noncarcinogenic effects from carcinogens. The chronic RELs used in this HRA are presented in Table 4-1 and are the most recent values published by OEHHA when available.

For any chemicals without OEHHA chronic RELs, the following hierarchy was used (e.g., if not present in the first data source, then the second was used):

- EPA Region IX Preliminary Remediation Goals (PRGs) (EPA, 1999)
- The lower of Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) or American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) (NIOSH 1997, ACGIH 1999) divided by a safety factor of 420

If the EPA PRGs were used, "child only" exposure factors were used in the calculation of chronic RELs from these data, that is, a body weight of 15 kilograms (33 pounds) and an inhalation rate of 10 m^3 /day. This resulted in lower chronic RELs than if adult exposure factors were used, and these lower chronic RELs were subsequently used in the 70-year exposure calculations for all receptors. This is the same approach that the EPA uses in the screening use of their PRGs to provide for a conservative calculation that is protective of children (EPA 1999).

If neither OEHHA nor EPA had published information on non-cancer chronic toxicity, a chronic REL was derived from acceptable occupational exposure standards. OSHA has established PELs typically based on an 8-hour-averaging period (working day). The ACGIH also publishes 8-hour occupational exposure limits called TLVs. In many cases, these two limits are the same for a given chemical, but in several instances, these values differ. For the purposes of this HRA, the lower of these two limits divided by a safety factor of 420 was used (again, when an OEHHA REL or EPA PRG data could not be found). This safety factor is an accepted adjustment that can be made to convert a 40-hour-per-week occupational exposure limit to a continuous 168-hour-per-week general population exposure criteria (Stokinger and Woodward, 1958). The ratio, 168/40 = 4.2 is multiplied by a 100-fold safety factor to account for increased chronic health effects on more sensitive individuals than typical healthy working adults, and a potentially increased exposure time in the general population.

4.3 ACUTE NONCANCER REFERENCE EXPOSURE LEVELS

Acute health effects may result from short-term exposures that typically occur on an infrequent basis. Unlike chronic exposures, criteria for measuring acute health effects have not been standardized. Rather, several approaches may be used to establish allowable one-hour concentrations based on short-term toxicity studies in the literature. The acute RELs used in this HRA are presented in Table 4-1 and are the most recent values published by OEHHA, when available.

For any chemicals without OEHHA acute RELs, the lower of OSHA PELs or ACGIH TLVs were used. Often, when 8-hour PELs or TLVs are used as general population acute toxicity measures, no safety factors are applied since these PELs and TLVs are applicable to worker exposures of 8 hours per day, 5 days per week (ENSR, 1994). Furthermore, higher peak occupational exposures are typically allowed for short-term exposures (usually 15-minute or ceiling values), thus the use of lower 8-hour-average PELs and TLVs should be protective of one-hour acute effects in the general population. For the purposes of this health risk assessment, however, if OSHA PELs or ACGIH TLVs are used as acute toxicity measures, they were divided by a factor of 10 to provide for an additional margin of safety for sensitive members of the population, including the elderly, children, and those more susceptible.

Table 4-1. Cancer URFs and Chronic and Acute Noncancer RELs

Substance	ACE ID	Cancer URF		Chronic Noncancer REL		Acute Noncancer REL
		Inhalation micrograms per cubic meter $(\mu g/m^3)^{-1}$	Oral milligrams per kilogram per day $(mg/kg\text{-}d)^{-1}$	Inhalation $(\mu g/m^3)$	Oral (mg/kg-d)	Inhalation $(\mu g/m^3)$
Acetaldehyde	1	2.70E-06	NA	9.00E+00	NA	NA
Acetonitrile	191	NA	NA	2.55E+01	NA	6.70E+03
Acrolein	3	NA	NA	6.00E-02	NA	1.90E-01
Antimony	192	NA	NA	2.00E-01	NA	5.00E+01
Arsenic	10	3.30E-03	1.50E+00	3.00E-02	3.00E-04	1.90E-01
Benzene	13	2.90E-05	NA	6.00E+01	NA	1.30E+03
Benzyl Chloride	16	4.90E-05	NA	1.20E+01	NA	2.40E+02
Beryllium	17	2.40E-03	NA	7.00E-03	2.00E-03	2.00E-01
Bromine Compounds	19	NA	NA	1.70E+00	NA	6.60E+01
Butadiene, 1,3-	20	1.70E-04	NA	2.00E+01	NA	NA
Butyl Alcohol, Tert-	193	NA	NA	7.14E+02	NA	3.00E+04
Cadmium	22	4.20E-03	NA	2.00E-02	5.00E-04	5.00E-01
Carbon Tetrachloride	25	4.20E-05	NA	4.00E+01	NA	1.90E+03
Chlorobenzene	29	NA	NA	1.00E+03	NA	NA
Chloroform	30	5.30E-06	NA	3.00E+02	NA	1.50E+02
Chromium Hexavalent	36	1.50E-01	4.20E-01	2.00E-01	2.00E-02	4.30E+01
Copper	38	NA	NA	2.40E+00	NA	1.00E+02
Dichlorobenzene, p-	48	1.10E-05	NA	8.00E+02	NA	6.00E+03
Diesel Exhaust (particulates)	194	3.00E-04	NA	5.00E+00	NA	NA
Dimethylformamide	195	NA	NA	8.00E+01	NA	3.00E+03
Dioxane, 1,4-	54	7.70E-06	NA	3.00E+03	NA	3.00E+03
Epichlorohydrin	57	2.30E-05	NA	3.00E+00	NA	1.30E+03
Ethanol	196	NA	NA	4.48E+03	NA	1.88E+05
Ethyl Acetate	197	NA	NA	1.35E+03	NA	1.40E+05
Ethyl Benzene	167	NA	NA	2.00E+03	NA	4.34E+04
Ethyl Ether	198	NA	NA	3.00E+02	NA	1.20E+05
Ethylene Dichloride	61	2.20E-05	NA	4.00E+02	NA	NA
Ethylene Glycol Butyl Ether	64	NA	NA	2.00E+01	NA	1.40E+04
Formaldehyde	70	6.00E-06	NA	3.00E+00	NA	9.40E+01
Glutaraldehyde	72	NA	NA	8.00E-02	NA	2.00E+01
Hexane	168	NA	NA	7.00E+03	NA	1.76E+04
Hydrazine	77	4.90E-03	NA	2.00E-01	NA	1.30E+00
Hydrogen Chloride	78	NA	NA	9.00E+00	NA	2.10E+03
Hydrogen Fluoride	80	NA	NA	5.90E+00	NA	2.40E+02
Isopropyl Alcohol	164	NA	NA	7.00E+03	NA	3.20E+03
Lead	83	1.20E-05	8.50E-03	1.50E+00	NA	6.00E+00
Manganese	85	NA	NA	2.00E-01	NA	2.00E+01
Mercury Compounds	87	NA	NA	9.00E-02	3.00E-04	1.80E+00
Methanol	88	NA	NA	4.00E+03	NA	2.80E+04

Substance	ACE ID	Cancer URF		Chronic Noncancer REL		Acute Noncancer REL
		Inhalation micrograms per cubic meter $(\mu g/m^3)^{-1}$	Oral milligrams per kilogram per day $(mg/kg\text{-}d)^{-1}$	Inhalation $(\mu g/m^3)$	Oral (mg/kg-d)	Inhalation $(\mu g/m^3)$
Methyl Bromide	90	NA	NA	5.00E+00	NA	3.90E+03
Methyl Tert Butyl Ether	165	2.60E-07	NA	8.00E+03	NA	NA
Methylene Chloride	96	1.00E-06	NA	4.00E+02	NA	1.40E+04
Naphthalene	110	NA	NA	9.00E+00	NA	5.00E+03
Nickel	111	2.60E-04	NA	5.00E-02	NA	6.00E+00
PAH (carcinogenic)	130	1.10E-03	1.20E+01	4.80E-01	NA	2.00E+01
Perchloroethylene	122	5.90E-06	NA	3.50E+01	NA	2.00E+04
Phosgene	125	NA	NA	3.00E-01	NA	4.00E+00
Propylene	134	NA	NA	3.00E+03	NA	NA
Propylene Oxide	135	3.70E-06	NA	3.00E+01	NA	3.10E+03
Pyridine	199	NA	NA	1.50E+00	NA	1.50E+03
Selenium	137	NA	NA	2.00E+01	NA	2.00E+01
Tetrahydrofuran	200	NA	NA	3.01E+02	NA	5.90E+04
Toluene	145	NA	NA	3.00E+02	NA	3.70E+04
Trichloroethane, 1,1,1-	91	NA	NA	1.00E+03	NA	6.80E+04
Trichloroethylene	146	2.00E-06	NA	6.00E+02	NA	2.69E+04
Triethylamine	201	NA	NA	7.00E+00	NA	2.80E+03
Vinyl Chloride	149	7.80E-05	NA	2.60E+01	NA	1.80E+05
Vinylidene Chloride	150	NA	NA	7.00E+01	NA	NA
Xylenes	151	NA	NA	7.00E+02	NA	2.20E+04
Zinc	152	NA	NA	3.50E+01	NA	5.00E+01

5.0 RISK CHARACTERIZATION

Risk characterization is the final step in the risk assessment process where the results of the exposure and dose-response assessments are combined to estimate the potential for adverse health effects. Risk analysts describe risks numerically in scientific notation, for example 1×10^{-5}, which means that there is one chance in 100,000 of an event occurring. The CAPCOA guidelines establish an upper threshold of 10 in one million for acceptable cancer health risk. Cancer risk is defined as the upperbound incremental 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.

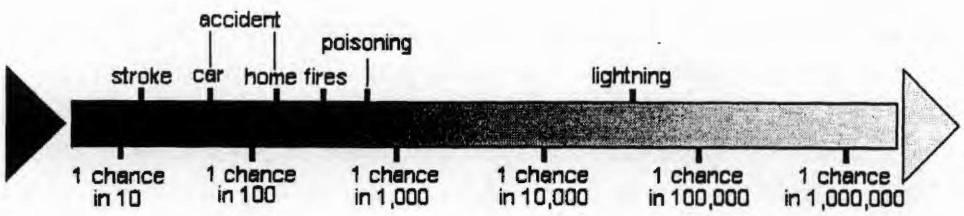
The conclusions of a health risk assessment must be considered in context. As a general matter, the background probability of an individual contracting cancer in one's lifetime is 333,000 in one million; that is, one in three people will contract cancer in their lifetime. This overall probability of contracting cancer can be influenced by diet, smoking, heredity, chemicals in the environment and the workplace, and other factors. Thus, the threshold of 10 excess cancer cases in one million means that the project 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 1×10^{-5}, the expected number of cases is 0.001.[1] For risk assessment purposes, a lifetime of exposure is considered to be 70 years, 365 days a year, 24 hours per day. It should be further recognized that a risk assessment 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. The chance that an individual would be exposed to any of these exposure assumptions is small, and for all assumptions even smaller (e.g. 70 years of continuously breathing air at the location of maximum impact). Thus, an individual's actual risk is likely to be significantly over-estimated by the methodology of a health risk assessment.

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:

[1] "Guidance for Risk Characterization" US EPA Science Policy Council, February, 1995.

Putting Risks in Perspective



Source: "Air Pollution and Health Risk", EPA Publication 450/3-90-022 (1991)

Health effect categories evaluated in this HRA include the following:

- Lifetime risk of developing cancer;
- Population-wide potential for developing cancer;
- Potential for chronic or long-term noncancer effects; and
- Potential for acute or short-term noncancer effects.

5.1 CANCER RISK FROM THE EXISTING SCENARIO

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 or upper bound estimate of cancer risk.

Results of the cancer health effects assessment indicate that all of the cancer risks are less than 10 in one million (1.0×10^{-5}). Cancer risks less than 10 in one million are considered acceptable and do not require public notification in accordance with state and local guidelines. The lifetime incremental cancer risk as a result of a lifetime exposure to emissions from the routine campus-wide operation of all sources in the Existing Scenario 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 located east of the campus along Hilgard Avenue. The on-campus MEI was located at the day care center near Franz Hall. A summary of the HRA results for the off- and on-campus MEIs in the Existing Scenario is presented in Table 5-1. The locations of the cancer, chronic, and acute noncancer off- and on-campus MEIs in the Existing Scenario are presented in Figure 5-1.

The primary source contribution to the estimated cancer risk at the off-campus MEI was the standby generator at the Cogen Plant (ICE10) with approximately 27% of the risk. Other primary source contributions included the gas turbines at the Cogen Plant (TURB1/2) with approximately 11% of the risk. The source contribution to cancer risk at the off-campus MEI in the Existing Scenario is presented in Table 5-2. The primary source contribution to the estimated cancer risk at the on-campus MEI was the standby generator at the Cogen Plant (ICE10) with approximately 34% of the risk. Other primary source contributions included the gas turbines at the Cogen Plant (TURB1/2) with approximately 14% of the risk. The source contribution to cancer risk at the on-campus MEI in the Existing Scenario is presented in

Table 5-3. At other off- and on-campus receptor locations, different sources may contribute more significantly as the source-specific contribution is dependent on many variables such as the source to receptor distance.

The primary chemical contribution to the estimated cancer risk at the off-campus MEI was diesel exhaust with approximately 61% of the risk. Other primary chemical contributions included PAH and chloroform with approximately 10% and 8% of the risks, respectively. The chemical contribution to cancer risk at the off-campus MEI in the Existing Scenario by substance and by exposure pathway is presented in Table 5-4. The primary chemical contribution to the estimated cancer risk at the on-campus MEI was diesel exhaust with approximately 61% of the risk. Other primary chemical contributions included PAH and chloroform with approximately 12% and 7% of the risks, respectively. The chemical contribution to cancer risk at the on-campus MEI in the Existing Scenario by substance and by exposure pathway is presented in Table 5-5. At other off- and on-campus receptor locations, different chemicals may contribute more significantly depending on the types of chemicals emitted by the source nearby the receptor. ACE 2588 HRA modeling results are provided in Appendix D. The electronic modeling files for this analysis are contained in Appendix E.

5.2 CANCER BURDEN FROM THE EXISTING SCENARIO

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 campus-wide operations. An acceptable cancer burden threshold is 1.0 or less. 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 ZOA. The extent of the ZOA in the Existing Scenario is presented in Figure 5-2. The population within the ZOA is approximately 79,552 people (including 19,552 residential and 60,000 employees/students). In the Existing Scenario, the mean cancer risk within the ZOA, 3.2×10^{-6}, was used to estimate the cancer burden. 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 suggests that the emissions from routine campus-wide operations in the Existing Scenario will not cause any additional cancer cases within the surrounding area because it is well below 1.0.

5.3 NONCANCER HEALTH EFFECTS FROM THE EXISTING SCENARIO

The potential for emissions from routine campus-wide operations to cause both chronic (long-term) and acute (short-term) noncancer health effects was also assessed in this HRA. Guidance published by 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, central nervous system, etc.).

Results of the chronic noncancer health effects assessment indicate that all of the 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 campus-wide operations are unlikely. The maximum chronic HI for an organ system in the Existing Scenario was 0.11 at the off-campus MEI and 0.12 at the on-campus

MEI. The off-campus MEI was located east of the campus along Hilgard Avenue. The on-campus MEI was located at the day care center near Franz Hall. The chronic HI results for the off- and on-campus MEIs in the Existing Scenario are presented in Table 5-6.

Results of the acute noncancer health effects assessment indicate that all of the HI values for each organ system are less than 1.0. Acute HI values less than 1.0 indicate that noncancer effects from acute exposure to emissions from routine campus-wide operations are unlikely. The maximum acute HI for an organ system in the Existing Scenario was 0.15 at the off-campus MEI and 0.12 at the on-campus MEI. The off-campus MEI was located approximately 200 meters west of the campus boundary. The on-campus MEI was located at the UCLA Medical Center. The acute HI results for the off- and on-campus MEIs in the Existing Scenario are presented in Table 5-7.

5.4 SENSITIVE RECEPTOR IMPACTS FROM THE EXISTING SCENARIO

Five sensitive receptors were identified within the carcinogenic ZOA in the Existing Scenario. The HRA evaluated the cancer and noncancer health effects at these locations. The results showed that the potential cancer and noncancer health effects at these locations were well below the established health risk thresholds. The results for the sensitive receptors in the Existing Scenario are presented in Table 5-8. The locations of the sensitive receptors are shown in Figure 5-2.

5.5 CANCER RISK FROM THE LRDP SCENARIO

Results of the cancer health effects assessment indicate that all of the cancer risks are less than 10 in one million (1.0×10^{-5}). The lifetime incremental cancer risk as a result of a lifetime exposure to emissions from the routine campus-wide operation of all sources in the LRDP Scenario was estimated to be 6.4 in one million (6.4×10^{-6}) at the off-campus MEI and 7.5 in one million (7.5×10^{-6}) at the on-campus MEI. The off-campus MEI was located east of the campus along Hilgard Avenue. The on-campus MEI was located at the day care center near Franz Hall. A summary of the HRA results for the off- and on-campus MEIs in the LRDP Scenario is presented in Table 5-9. The locations of the cancer, chronic, and acute noncancer off- and on-campus MEIs in the LRDP Scenario are presented in Figure 5-1.

The primary source contribution to the estimated cancer risk at the off-campus MEI was the standby generator at the Cogen Plant (ICE10) with approximately 26% of the risk. Other primary source contributions included the gas turbines at the Cogen Plant (TURB1/2) and the four standby generators (ICE38-41) at the UCLA Medical Center with approximately 11% and 7% of the risks, respectively. The source contribution to cancer risk at the off-campus MEI in the LRDP Scenario is presented in Table 5-10. The primary source contribution to the estimated cancer risk at the on-campus MEI was the standby generator at the Cogen Plant (ICE10) with approximately 34% of the risk. Other primary source contributions included the gas turbines at the Cogen Plant (TURB1/2) with approximately 13% of the risks. The source contribution to cancer risk at the on-campus MEI in the LRDP Scenario is presented in Table 5-11. At other off- and on-campus receptor locations, different sources may contribute more significantly as the source-specific contribution is dependent on many variables such as the source to receptor distance.

The primary chemical contribution to the estimated cancer risk at the off-campus MEI was diesel exhaust with approximately 63% of the risk. Other primary chemical contributions included PAH and chloroform with approximately 10% and 8% of the risks, respectively. The chemical contribution to cancer risk at the off-campus MEI in the LRDP Scenario by substance and by exposure pathway is presented in Table 5-12. The primary chemical contribution to the estimated cancer risk at the on-campus MEI was diesel exhaust with approximately 62% of the risk. Other primary chemical contributions included PAH and chloroform with approximately 12% and 7% of the risks, respectively. The chemical contribution to cancer risk at the on-campus MEI in the LRDP Scenario by substance and by exposure pathway is presented in Table 5-13. At other off- and on-campus receptor locations, different chemicals may contribute more significantly depending on the types of chemicals emitted by the source nearby the receptor. ACE 2588 HRA modeling results are provided in Appendix D. The electronic modeling files for this analysis are contained in Appendix E.

5.6 CANCER BURDEN FROM THE LRDP SCENARIO

The extent of the ZOA in the LRDP Scenario is presented in Figure 5-2. The population within the ZOA is approximately 79,552 people (including 19,552 residential and 60,000 employees/students). In the LRDP Scenario, the mean cancer risk within the ZOA, 3.2×10^{-6}, was used to estimate the cancer burden. 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 suggests that the emissions from routine campus-wide operations will not cause any additional cancer cases within the surrounding area because it is well below 1.0.

5.7 NONCANCER HEALTH EFFECTS FROM THE LRDP SCENARIO

The maximum chronic HI for an organ system in the LRDP Scenario was 0.11 at the off-campus MEI and 0.12 at the on-campus MEI. The off-campus MEI was located east of the campus along Hilgard Avenue. The on-campus MEI was located at the day care center near Franz Hall. The chronic HI results for the off- and on-campus MEIs in the LRDP Scenario are presented in Table 5-14.

The maximum acute HI for an organ system in the LRDP Scenario was 0.15 at the off-campus MEI and 0.12 at the on-campus MEI. The off-campus MEI was located approximately 200 meters west of the campus boundary. The on-campus MEI was located at the UCLA Medical Center. The acute HI results for the off- and on-campus MEIs in the LRDP Scenario are presented in Table 5-15.

5.8 SENSITIVE RECEPTOR IMPACTS FROM THE LRDP SCENARIO

Five sensitive receptors were identified within the carcinogenic ZOA in the LRDP Scenario. The HRA evaluated the cancer and noncancer health effects at these locations. The results showed that the potential cancer and noncancer health effects at these locations were well below the established health risk thresholds. The results for the sensitive receptors in the LRDP Scenario are presented in Table 5-16. The locations of the sensitive receptors are shown in Figure 5-2.

Table 5-1. Summary of HRA Results for the Off- and On-Campus MEIs in the Existing Scenario

	Result	Universal Transverse Mercator Coordinates		Location
		East (m)	North (m)	
Off-campus MEI				
Cancer Risk	6.3E-06	367313	3770554	East of campus along Hilgard Avenue
Chronic HI	0.11	367313	3770554	East of campus along Hilgard Avenue
Acute HI	0.15	366177	3770497	200 meters west of campus boundary
On-campus MEI				
Cancer Risk	7.3E-06	367182	3770618	Daycare at Franz Hall
Chronic HI	0.12	367182	3770618	Daycare at Franz Hall
Acute HI	0.12	367040	3770202	UCLA Medical Center

Table 5-2. Source Contribution to Cancer Risk at the Off-Campus MEI[a] in the Existing Scenario

Rank	Source ID	Location	% of Total	Cancer Risk
1	ICE10	Cogen	26.6	1.7E-06
2	ICE38[b]	UCLA Med Ctr	7.3	4.6E-07
3	TURB1	Cogen	6.9	4.3E-07
4	LAB19	HSSRB #2	6.0	3.8E-07
5	ICE52	HSSRB #2	5.8	3.6E-07
6	ICE42	UCLA Med Ctr	5.4	3.4E-07
7	LAB4	Health Sciences Area	5.0	3.2E-07
8	LAB5	Physical Sciences Area	4.8	3.0E-07
9	ICE53	Luck Ctr	4.7	3.0E-07
10	TURB2	Cogen	4.0	2.5E-07
11	LAB20	Luck Ctr	2.8	1.8E-07
12	LAB24	CNSI - COS	2.8	1.8E-07
13	ICE56	CNSI - COS	2.4	1.5E-07
14	ICE51	HSSRB #1	2.2	1.4E-07
15	ICE54	HSSRB #3	1.7	1.1E-07
16	LAB21	HSSRB #3	1.5	9.3E-08
17	LAB18	HSSRB #1	1.0	6.5E-08
18	ICE48	Env Svcs Fac	0.9	5.9E-08
19	ICE16	MSB	0.6	3.7E-08
20	LAB23	Engr. I Replacement	0.6	3.5E-08
21	ICE5	De Neve	0.5	3.4E-08
22	ICE34	Gonda	0.5	3.1E-08
23	ICE49	Phy & Ast/Knudsen	0.5	3.0E-08
24	ICE35[c]	200 Med Plaza	0.5	3.0E-08
25	ICE44	Macdonald Lab	0.4	2.8E-08
26	LAB15	Phy & Ast/Knudsen	0.4	2.7E-08
27	ICE1	Ackerman	0.4	2.4E-08
28	ICE46	SEAS IV NW	0.4	2.3E-08
29	ICE20	UCPD NE	0.4	2.3E-08
30	ICE8	Dykstra	0.3	2.0E-08
31	ICE2	Kerckhoff	0.3	1.7E-08
32	ICE36	300 Med Plaza	0.3	1.6E-08
33	ICE17	STRB	0.3	1.6E-08
34	DISP1	Fleet Services	0.2	1.6E-08
35	ICE7	Sproul Hall	0.2	1.5E-08
36	LAB2	Warren Hall	0.2	1.5E-08
37	ICE11	Young Hall E	0.2	1.2E-08
38	ICE22	PS 1	0.2	1.0E-08
39	ICE3	Covel	0.1	8.1E-09
40	ICE9	Rieber Hall	0.1	7.4E-09
41	LAB1	Rehab Center	0.1	6.6E-09
42	ICE6	Hedrick	0.1	6.5E-09
43	LAB13	WW Hosp	0.1	5.2E-09
44	BOIL5	Cogen	0.0	2.5E-09
45	LAB9	Macgowan	0.0	1.7E-09

Rank	Source ID	Location	% of Total	Cancer Risk
			Total Risk:	6.3E-06

[a]Receptor #47 in ACE 2588 output, UTM Coordinates 367313m, 3770554m (along Hilgard Avenue)

[b]Emissions from ICE39, ICE40, and ICE41 added to and modeled from ICE38

[c]Emissions from ICE37 added to and modeled from ICE35

Table 5-3. Source Contribution to Cancer Risk at the On-Campus MEI[a] in the Existing Scenario

Rank	Source ID	Location	% of Total	Cancer Risk
1	ICE10	Cogen	34.0	2.5E-06
2	TURB2	Cogen	7.6	5.6E-07
3	TURB1	Cogen	6.0	4.4E-07
4	LAB24	CNSI - COS	5.6	4.1E-07
5	LAB5	Physical Sciences Area	5.2	3.8E-07
6	ICE56	CNSI - COS	4.9	3.6E-07
7	LAB4	Health Sciences Area	3.6	2.6E-07
8	ICE51	HSSRB #1	3.5	2.5E-07
9	ICE38[b]	UCLA Med Ctr	3.2	2.4E-07
10	ICE42	UCLA Med Ctr	3.1	2.3E-07
11	ICE53	Luck Ctr	2.4	1.7E-07
12	LAB19	HSSRB #2	2.2	1.6E-07
13	ICE52	HSSRB #2	2.1	1.6E-07
14	ICE54	HSSRB #3	1.9	1.4E-07
15	LAB18	HSSRB #1	1.7	1.2E-07
16	LAB21	HSSRB #3	1.6	1.2E-07
17	LAB20	Luck Ctr	1.4	1.1E-07
18	ICE48	Env Svcs Fac	1.0	7.1E-08
19	LAB23	Engr. I Replacement	1.0	7.0E-08
20	ICE34	Gonda	0.7	4.9E-08
21	ICE44	Macdonald Lab	0.7	4.8E-08
22	ICE5	De Neve	0.6	4.8E-08
23	ICE2	Kerckhoff	0.6	4.3E-08
24	ICE1	Ackerman	0.6	4.1E-08
25	ICE35[c]	200 Med Plaza	0.6	4.1E-08
26	ICE46	SEAS IV NW	0.4	3.3E-08
27	ICE20	UCPD NE	0.4	3.1E-08
28	ICE8	Dykstra	0.4	2.8E-08
29	LAB15	Phy & Ast/Knudsen	0.3	2.5E-08
30	ICE16	MSB	0.3	2.1E-08
31	DISP1	Fleet Services	0.3	1.9E-08
32	ICE7	Sproul Hall	0.3	1.9E-08
33	ICE36	300 Med Plaza	0.2	1.8E-08
34	LAB2	Warren Hall	0.2	1.8E-08
35	ICE49	Phy & Ast/Knudsen	0.2	1.7E-08
36	ICE22	PS 1	0.2	1.5E-08
37	ICE17	STRB	0.2	1.4E-08
38	ICE11	Young Hall E	0.2	1.1E-08
39	ICE3	Covel	0.1	1.0E-08
40	ICE9	Rieber Hall	0.1	1.0E-08
41	ICE6	Hedrick	0.1	7.7E-09
42	LAB13	WW Hosp	0.1	7.7E-09
43	LAB1	Rehab Center	0.1	6.5E-09
44	BOIL5	Cogen	0.1	6.1E-09
45	LAB9	Macgowan	0.0	1.4E-09

Rank	Source ID	Location	% of Total	Cancer Risk
			Total Risk:	7.3E-06

[a]Receptor #7 in ACE 2588 output, UTM Coordinates 367182m, 3770618m (Daycare at Franz Hall)

[b]Emissions from ICE39, ICE40, and ICE41 added to and modeled from ICE38

[c]Emissions from ICE37 added to and modeled from ICE35

Table 5-4. Cancer Risk at the Off-campus MEI by Substance and by Exposure Pathway[a] in the Existing Scenario

Substance	Inhalation	Dermal	Soil	Plants	Total	% of Total
Acetaldehyde	3.8E-09	0.0E+00	0.0E+00	0.0E+00	3.8E-09	0.1
Arsenic	2.0E-09	5.1E-11	2.4E-09	1.0E-09	5.5E-09	0.1
Benzene	1.9E-07	0.0E+00	0.0E+00	0.0E+00	1.9E-07	3.0
Benzyl Chloride	2.3E-09	0.0E+00	0.0E+00	0.0E+00	2.3E-09	0.0
Beryllium	2.5E-10	0.0E+00	0.0E+00	0.0E+00	2.5E-10	0.0
Butadiene, 1,3-	2.7E-09	0.0E+00	0.0E+00	0.0E+00	2.7E-09	0.0
Cadmium	4.3E-10	0.0E+00	0.0E+00	0.0E+00	4.3E-10	0.0
Carbon Tetrachloride	1.7E-07	0.0E+00	0.0E+00	0.0E+00	1.7E-07	2.6
Chloroform	5.1E-07	0.0E+00	0.0E+00	0.0E+00	5.1E-07	8.1
Chromium Hexavalent	1.5E-08	2.4E-11	1.1E-10	4.5E-11	1.6E-08	0.2
Dichlorobenzene, p-	2.4E-10	0.0E+00	0.0E+00	0.0E+00	2.4E-10	0.0
Diesel Exhaust (particulates)	3.8E-06	0.0E+00	0.0E+00	0.0E+00	3.8E-06	61.0
Dioxane, 1,4-	5.0E-08	0.0E+00	0.0E+00	0.0E+00	5.0E-08	0.8
Epichlorohydrin	1.3E-09	0.0E+00	0.0E+00	0.0E+00	1.3E-09	0.0
Ethylene Dichloride	6.4E-10	0.0E+00	0.0E+00	0.0E+00	6.4E-10	0.0
Formaldehyde	3.5E-07	0.0E+00	0.0E+00	0.0E+00	3.5E-07	5.6
Hydrazine	2.7E-07	0.0E+00	0.0E+00	0.0E+00	2.7E-07	4.3
Lead	4.9E-12	1.9E-13	9.1E-12	3.8E-12	1.8E-11	0.0
Methyl Tert Butyl Ether	2.8E-09	0.0E+00	0.0E+00	0.0E+00	2.8E-09	0.0
Methylene Chloride	2.4E-07	0.0E+00	0.0E+00	0.0E+00	2.4E-07	3.8
Nickel	5.3E-11	0.0E+00	0.0E+00	0.0E+00	5.3E-11	0.0
PAH (carcinogenic)	4.4E-08	4.2E-08	6.6E-08	4.8E-07	6.3E-07	10.0
Perchloroethylene	4.5E-09	0.0E+00	0.0E+00	0.0E+00	4.5E-09	0.1
Propylene Oxide	3.7E-09	0.0E+00	0.0E+00	0.0E+00	3.7E-09	0.1
Trichloroethylene	2.0E-09	0.0E+00	0.0E+00	0.0E+00	2.0E-09	0.0
Vinyl Chloride	3.6E-09	0.0E+00	0.0E+00	0.0E+00	3.6E-09	0.1
Total	**5.7E-06**	**4.2E-08**	**6.8E-08**	**4.8E-07**	**6.3E-06**	**100**

[a]Receptor #47 in ACE 2588 output, UTM Coordinates 367313m, 3770554m (along Hilgard Avenue)

Table 5-5. Cancer Risk at the On-campus MEI by Substance and by Exposure Pathway[a] in the Existing Scenario

Substance	Inhalation	Dermal	Soil	Plants	Total	% of Total
Acetaldehyde	5.4E-09	0.0E+00	0.0E+00	0.0E+00	5.4E-09	0.1
Arsenic	2.9E-09	7.3E-11	3.5E-09	1.4E-09	7.9E-09	0.1
Benzene	2.0E-07	0.0E+00	0.0E+00	0.0E+00	2.0E-07	2.8
Benzyl Chloride	3.4E-09	0.0E+00	0.0E+00	0.0E+00	3.4E-09	0.0
Beryllium	3.5E-10	0.0E+00	0.0E+00	0.0E+00	3.5E-10	0.0
Butadiene, 1,3-	3.8E-09	0.0E+00	0.0E+00	0.0E+00	3.8E-09	0.1
Cadmium	6.2E-10	0.0E+00	0.0E+00	0.0E+00	6.2E-10	0.0
Carbon Tetrachloride	1.8E-07	0.0E+00	0.0E+00	0.0E+00	1.8E-07	2.4
Chloroform	5.4E-07	0.0E+00	0.0E+00	0.0E+00	5.4E-07	7.3
Chromium Hexavalent	2.2E-08	3.4E-11	1.6E-10	6.5E-11	2.2E-08	0.3
Dichlorobenzene, p-	3.5E-10	0.0E+00	0.0E+00	0.0E+00	3.5E-10	0.0
Diesel Exhaust (particulates)	4.5E-06	0.0E+00	0.0E+00	0.0E+00	4.5E-06	61.1
Dioxane, 1,4-	5.3E-08	0.0E+00	0.0E+00	0.0E+00	5.3E-08	0.7
Epichlorohydrin	1.3E-09	0.0E+00	0.0E+00	0.0E+00	1.3E-09	0.0
Ethylene Dichloride	9.2E-10	0.0E+00	0.0E+00	0.0E+00	9.2E-10	0.0
Formaldehyde	4.3E-07	0.0E+00	0.0E+00	0.0E+00	4.3E-07	5.8
Hydrazine	2.8E-07	0.0E+00	0.0E+00	0.0E+00	2.8E-07	3.9
Lead	7.1E-12	2.8E-13	1.3E-11	5.5E-12	2.6E-11	0.0
Methyl Tert Butyl Ether	3.4E-09	0.0E+00	0.0E+00	0.0E+00	3.4E-09	0.0
Methylene Chloride	2.5E-07	0.0E+00	0.0E+00	0.0E+00	2.5E-07	3.4
Nickel	7.7E-11	0.0E+00	0.0E+00	0.0E+00	7.7E-11	0.0
PAH (carcinogenic)	5.9E-08	5.7E-08	8.9E-08	6.5E-07	8.5E-07	11.6
Perchloroethylene	5.7E-09	0.0E+00	0.0E+00	0.0E+00	5.7E-09	0.1
Propylene Oxide	5.3E-09	0.0E+00	0.0E+00	0.0E+00	5.3E-09	0.1
Trichloroethylene	2.2E-09	0.0E+00	0.0E+00	0.0E+00	2.2E-09	0.0
Vinyl Chloride	5.1E-09	0.0E+00	0.0E+00	0.0E+00	5.1E-09	0.1
Total	**6.5E-06**	**5.7E-08**	**9.3E-08**	**6.5E-07**	**7.3E-06**	**100**

[a]Receptor #7 in ACE 2588 output, UTM Coordinates 367182m, 3770618m (Daycare at Franz Hall)

Table 5-6. Chronic Noncancer Hazard Index at the Off- and On-Campus MEIs in the Existing Scenario

Target Organ	Substance	Off-campus Chronic HI[a]	On-campus Chronic HI[b]
Cardiovascular	Arsenic	2.8E-05	4.1E-05
	Benzene	1.1E-04	1.2E-04
	Dioxane, 1,4-	2.2E-06	2.3E-06
	Methylene Chloride	6.0E-04	6.3E-04
	Nickel	4.1E-06	5.9E-06
	Selenium	5.1E-09	7.4E-09
	Zinc	6.4E-08	9.3E-08
Total		**7.4E-04**	**8.0E-04**
Central Nervous System	Arsenic	2.8E-05	4.1E-05
	Benzene	1.1E-04	1.2E-04
	Carbon Tetrachloride	9.9E-05	1.0E-04
	Dichlorobenzene, p-	2.8E-08	4.0E-08
	Hexane	6.6E-07	7.3E-07
	Manganese	2.6E-05	3.7E-05
	Mercury Compounds	2.0E-06	2.9E-06
	Methyl Bromide	5.5E-02	5.8E-02
	Methylene Chloride	6.0E-04	6.3E-04
	Toluene	9.7E-05	1.1E-04
	Trichloroethane, 1,1,1-	2.5E-06	2.7E-06
	Trichloroethylene	1.7E-06	1.8E-06
	Xylenes	1.7E-05	2.0E-05
Total		**5.6E-02**	**5.9E-02**
Immune	Beryllium	1.5E-05	2.1E-05
	Triethylamine	2.8E-04	3.0E-04
Total		**3.0E-04**	**3.2E-04**
Kidney	Cadmium	6.3E-06	9.0E-06
	Chlorobenzene	5.0E-08	7.2E-08
	Chloroform	3.2E-04	3.4E-04
	Dichlorobenzene, p-	2.8E-08	4.0E-08
	Dioxane, 1,4-	2.2E-06	2.3E-06
	Ethyl Benzene	6.9E-07	9.7E-07
	Isopropyl Alcohol	2.0E-05	2.1E-05
	Methyl Tert Butyl Ether	1.3E-06	1.7E-06
	Perchloroethylene	2.2E-05	2.8E-05
Total		**3.7E-04**	**4.0E-04**
Liver	Carbon Tetrachloride	9.9E-05	1.0E-04
	Chlorobenzene	5.0E-08	7.2E-08
	Chloroform	3.2E-04	3.4E-04
	Dichlorobenzene, p-	2.8E-08	4.0E-08
	Dimethylformamide	3.2E-05	3.4E-05
	Dioxane, 1,4-	2.2E-06	2.3E-06
	Ethyl Benzene	6.9E-07	9.7E-07
	Ethylene Dichloride	7.2E-08	1.0E-07

Target Organ	Substance	Off-campus Chronic HI[a]	On-campus Chronic HI[b]
	Hydrazine	2.7E-04	2.9E-04
	Methyl Tert Butyl Ether	1.3E-06	1.7E-06
	Perchloroethylene	2.2E-05	2.8E-05
	Selenium	5.1E-09	7.4E-09
	Vinyl Chloride	1.8E-06	2.5E-06
	Vinylidene Chloride	4.1E-07	6.0E-07
	Zinc	6.4E-08	9.3E-08
Total		**7.6E-04**	**8.0E-04**
Reproductive	Arsenic	2.8E-05	4.1E-05
	Benzene	1.1E-04	1.2E-04
	Butadiene, 1,3-	8.0E-07	1.1E-06
	Carbon Tetrachloride	9.9E-05	1.0E-04
	Chlorobenzene	5.0E-08	7.2E-08
	Chloroform	3.2E-04	3.4E-04
	Ethyl Benzene	6.9E-07	9.7E-07
	Isopropyl Alcohol	2.0E-05	2.1E-05
	Methanol	1.7E-04	1.8E-04
	Methyl Bromide	5.5E-02	5.8E-02
	Toluene	9.7E-05	1.1E-04
	Vinyl Chloride	1.8E-06	2.5E-06
Total		**5.6E-02**	**5.9E-02**
Respiratory	Acetaldehyde	1.6E-04	2.2E-04
	Acetonitrile	1.8E-03	1.8E-03
	Acrolein	3.7E-03	5.4E-03
	Antimony	3.1E-06	4.4E-06
	Benzyl Chloride	4.0E-06	5.7E-06
	Beryllium	1.5E-05	2.1E-05
	Bromine Compounds	3.3E-04	3.5E-04
	Butyl Alcohol, Tert-	2.8E-04	3.0E-04
	Cadmium	5.1E-06	7.4E-06
	Chromium Hexavalent	5.1E-07	7.4E-07
	Copper	1.7E-07	2.5E-07
	Dichlorobenzene, p-	2.8E-08	4.0E-08
	Diesel Exhaust (particulates)	2.6E-03	3.0E-03
	Dimethylformamide	3.2E-05	3.4E-05
	Epichlorohydrin	1.8E-05	1.9E-05
	Ethanol	7.9E-04	8.3E-04
	Ethyl Acetate	1.1E-04	1.1E-04
	Ethyl Ether	2.6E-04	2.8E-04
	Formaldehyde	2.0E-02	2.4E-02
	Glutaraldehyde	1.5E-02	1.5E-02
	Hydrogen Chloride	1.2E-02	1.2E-02
	Hydrogen Fluoride	6.3E-04	6.6E-04
	Methyl Bromide	5.5E-02	5.8E-02

Target Organ	Substance	Off-campus Chronic HI[a]	On-campus Chronic HI[b]
	Naphthalene	6.4E-06	8.7E-06
	Nickel	4.1E-06	5.9E-06
	PAH (carcinogenic)	8.3E-05	1.1E-04
	Propylene	5.6E-04	5.9E-04
	Phosgene	1.1E-07	1.2E-07
	Propylene Oxide	3.3E-05	4.8E-05
	Pyridine	1.1E-03	1.2E-03
	Selenium	5.1E-09	7.4E-09
	Tetrahydrofuran	1.3E-04	1.3E-04
	Toluene	9.7E-05	1.1E-04
	Triethylamine	2.8E-04	3.0E-04
	Xylenes	1.7E-05	2.0E-05
	Zinc	6.4E-08	9.3E-08
Total		**1.1E-01**	**1.2E-01**
Eye	Hydrogen Fluoride	6.3E-04	6.6E-04
Total		**6.3E-04**	**6.6E-04**

[a]Receptor #47 in ACE 2588 output, UTM Coordinates 367313m, 3770554m (along Hilgard Avenue)
[b]Receptor #7 in ACE 2588 output, UTM Coordinates 367182m, 3770618m (Daycare at Franz Hall)

Table 5-7. Acute Noncancer Hazard Index at the Off- and On-Campus MEIs in the Existing Scenario

Target Organ	Substance	Off-campus Acute HI[a]	On-campus Acute HI[b]
Cardiovascular	Benzene	1.3E-03	1.3E-03
Total		**1.3E-03**	**1.3E-03**
Central Nervous System	Carbon Tetrachloride	2.3E-05	5.8E-05
	Chloroform	7.0E-03	1.8E-02
	Methanol	2.6E-04	6.8E-04
	Methyl Bromide	7.7E-04	2.0E-03
	Methylene Chloride	1.9E-04	4.8E-04
	Perchloroethylene	1.5E-06	4.6E-07
	Toluene	1.6E-04	7.1E-05
	Trichloroethane, 1,1,1-	4.1E-07	1.0E-06
	Triethylamine	7.6E-06	2.0E-05
	Vinyl Chloride	1.6E-08	4.6E-09
Total		**8.4E-03**	**2.1E-02**
Immune	Benzene	1.3E-03	1.3E-03
	Formaldehyde	2.0E-02	1.0E-02
	Nickel	2.1E-06	6.2E-07
Total		**2.1E-02**	**1.2E-02**
Liver	Carbon Tetrachloride	2.3E-05	5.8E-05
Total		**2.3E-05**	**5.8E-05**
Reproductive	Arsenic	2.0E-04	5.8E-05
	Benzene	1.3E-03	1.3E-03
	Carbon Tetrachloride	2.3E-05	5.8E-05
	Chloroform	7.0E-03	1.8E-02
	Mercury Compounds	2.1E-06	6.1E-07
	Methyl Bromide	7.7E-04	2.0E-03
	Propylene Oxide	2.0E-05	5.8E-06
	Toluene	1.6E-04	7.1E-05
Total		**9.4E-03**	**2.2E-02**
Respiratory	Acetonitrile	7.2E-05	1.9E-04
	Acrolein	1.2E-01	9.1E-02
	Antimony	7.6E-07	2.2E-07
	Benzyl Chloride	1.2E-05	3.6E-06
	Beryllium	3.2E-05	9.2E-06
	Bromine Compounds	9.3E-05	2.4E-04
	Butyl Alcohol, Tert-	7.3E-05	1.9E-04
	Cadmium	1.3E-05	3.7E-06
	Chromium Hexavalent	1.5E-07	4.3E-08
	Copper	2.5E-07	7.4E-08
	Dichlorobenzene, p-	2.3E-07	6.6E-08
	Dimethylformamide	9.2E-06	2.4E-05
	Dioxane, 1,4-	2.4E-05	6.1E-05
	Epichlorohydrin	4.6E-07	1.2E-06
	Ethanol	2.0E-04	5.3E-04

Target Organ	Substance	Off-campus Acute HI[a]	On-campus Acute HI[b]
	Ethyl Acetate	1.1E-05	2.9E-05
	Ethyl Benzene	1.9E-05	8.8E-06
	Ethyl Ether	7.2E-06	1.9E-05
	Formaldehyde	2.0E-02	1.0E-02
	Glutaraldehyde	6.3E-04	1.6E-03
	Hexane	2.0E-04	9.9E-05
	Hydrazine	4.6E-04	1.2E-03
	Hydrogen Chloride	5.4E-04	1.4E-03
	Hydrogen Fluoride	1.7E-04	4.4E-04
	Isopropyl Alcohol	4.8E-04	1.3E-03
	Manganese	1.6E-05	4.6E-06
	Methyl Bromide	7.7E-04	2.0E-03
	Naphthalene	1.2E-05	5.7E-05
	Nickel	2.1E-06	6.2E-07
	PAH (carcinogenic)	2.0E-03	9.0E-03
	Perchloroethylene	1.5E-06	4.6E-07
	Phosgene	4.6E-04	1.2E-03
	Propylene Oxide	2.0E-05	5.8E-06
	Pyridine	1.2E-05	3.2E-05
	Selenium	3.2E-07	9.2E-08
	Tetrahydrofuran	7.0E-06	1.8E-05
	Toluene	1.6E-04	7.1E-05
	Trichloroethylene	4.4E-07	9.9E-07
	Vinyl Chloride	1.6E-08	4.6E-09
	Xylenes	9.3E-05	4.1E-05
	Zinc	2.8E-06	8.1E-07
Total		**1.5E-01**	**1.2E-01**
Eye	Acrolein	1.2E-01	9.1E-02
	Benzyl Chloride	1.2E-05	3.6E-06
	Dioxane, 1,4-	2.4E-05	6.1E-05
	Epichlorohydrin	4.6E-07	1.2E-06
	Formaldehyde	2.0E-02	1.0E-02
	Hydrogen Chloride	5.4E-04	1.4E-03
	Hydrogen Fluoride	1.7E-04	4.4E-04
	Isopropyl Alcohol	4.8E-04	1.3E-03
	Perchloroethylene	1.5E-06	4.6E-07
	Propylene Oxide	2.0E-05	5.8E-06
	Selenium	3.2E-07	9.2E-08
	Toluene	1.6E-04	7.1E-05
	Triethylamine	7.6E-06	2.0E-05
	Vinyl Chloride	1.6E-08	4.6E-09
	Xylenes	9.3E-05	4.1E-05
Total		**1.4E-01**	**1.0E-01**

[a]Receptor #316 in ACE 2588 output, UTM Coordinates 366177m, 3770497m (200m W of campus boundary)
[b]Receptor #3 in ACE 2588 output, UTM Coordinates 367040m, 3770202m (UCLA Medical Center)

Table 5-8. Summary of HRA Results for the Sensitive Receptors within the ZOA in the Existing Scenario

Number	Description	Address	Type	UTM Coordinates East (m)	UTM Coordinates North (m)	Heath Risks Cancer	Heath Risks Chronic HI	Heath Risks Acute HI
S1	Warner Avenue Elementary School	615 Holmby Ave. Los Angeles, CA 90024	School	367798	3770593	2.0E-06	0.03	0.05
S2	Westwood Unified Methodist Church Preschool	10497 Wilshire Blvd. Los Angeles, CA 90024	Day Care	367898	3770112	1.1E-06	0.02	0.04
S3	Sinai Temple Akiba Academy	10400 Wilshire Blvd. Los Angeles, CA 90024	School	368169	3770227	1.2E-06	0.02	0.04
S4	Sinai Temple Akiba Preschool	10400 Wilshire Blvd. Los Angeles, CA 90024	Day Care	368169	3770227	1.2E-06	0.02	0.04
S5	Marymount High School	10643 Sunset Blvd. Los Angeles, CA 90077	School	366716	3771216	1.6E-06	0.01	0.04

Table 5-9. Summary of HRA Results for the Off- and On-Campus MEIs in the LRDP Scenario

	Result	UTM Coordinates		Location
		East (m)	North (m)	
Off-campus MEI				
Cancer Risk	6.4E-06	367313	3770554	East of campus along Hilgard Avenue
Chronic HI	0.11	367313	3770554	East of campus along Hilgard Avenue
Acute HI	0.15	366177	3770497	200 meters west of campus boundary
On-campus MEI				
Cancer Risk	7.5E-06	367182	3770618	Daycare at Franz Hall
Chronic HI	0.12	367182	3770618	Daycare at Franz Hall
Acute HI	0.12	367040	3770202	UCLA Medical Center

Table 5-10. Source Contribution to Cancer Risk at the Off-Campus MEI[a] in the LRDP Scenario

Rank	Source ID	Location	% of Total	Cancer Risk
1	ICE10	Cogen Plant	26.2	1.7E-06
2	ICE38[b]	Medical Center	7.2	4.6E-07
3	TURB1	Cogen Plant	6.8	4.3E-07
4	LAB19	HSSRB #2	6.0	3.8E-07
5	ICE52	HSSRB #2	5.7	3.6E-07
6	ICE42	Medical Center #5	5.3	3.4E-07
7	ICE53	Luck Ctr	4.7	3.0E-07
8	LAB5	Physical Sciences Area	4.4	2.8E-07
9	TURB2	Cogen Plant	4.0	2.5E-07
10	LAB4	Health Sciences Area	3.0	1.9E-07
11	LAB20	Luck Research Center	2.8	1.8E-07
12	LAB24	CNSI - COS	2.8	1.8E-07
13	ICE56	CNSI - COS	2.3	1.5E-07
14	ICE51	HSSRB #1	2.2	1.4E-07
15	ICE54	HSSRB #3	1.7	1.1E-07
16	ICE55	Stein 3	1.6	1.0E-07
17	LAB21	HSSRB #3	1.5	9.3E-08
18	LAB18	HSSRB #1	1.0	6.5E-08
19	ICE50	Ambulatory	1.0	6.4E-08
20	LAB22	Stein 3	0.9	5.9E-08
21	ICE48	Env Svcs Fac	0.9	5.9E-08
22	ICE16	MSB	0.6	3.7E-08
23	LAB23	Engr I Replacement	0.6	3.5E-08
24	ICE5	De Neve	0.5	3.4E-08
25	ICE34	Gonda	0.5	3.1E-08
26	ICE49	Phy & Ast/Knudsen	0.5	3.0E-08
27	ICE35[c]	Medical Plaza	0.5	3.0E-08
28	ICE44	MRL	0.4	2.8E-08
29	LAB15	Physics & Astronomy	0.4	2.7E-08
30	ICE1	Ackerman Hall	0.4	2.4E-08
31	ICE46	SEAS	0.4	2.3E-08
32	ICE20	UCPD	0.4	2.3E-08
33	LAB16	Ambulatory Care	0.3	2.2E-08
34	ICE8	Dykstra Hall	0.3	2.0E-08
35	ICE2	Kerckhoff Hall	0.3	1.7E-08
36	ICE36	Medical Plaza (Roof)	0.3	1.6E-08
37	ICE17	STRB	0.2	1.6E-08
38	DISP1	Fleet Services	0.2	1.6E-08
39	ICE7	Sproul Hall	0.2	1.5E-08
40	ICE11	Young Hall	0.2	1.2E-08
41	ICE22	Medical Plaza Pk 1	0.2	1.0E-08
42	ICE3	Covel	0.1	8.1E-09
43	ICE9	Rieber Hall	0.1	7.4E-09
44	LAB1	Rehab Center	0.1	6.6E-09
45	ICE6	Hedrick Hall	0.1	6.5E-09

Rank	Source ID	Location	% of Total	Cancer Risk
46	LAB13	WW Hospital	0.1	5.2E-09
47	BOIL5	Cogen Plant	0.0	2.5E-09
48	LAB9	Melnitz/Macgowan Halls	0.0	1.7E-09
			Total Risk:	**6.4E-06**

[a]Receptor #47 in ACE 2588 output, UTM Coordinates 367313m, 3770554m (along Hilgard Avenue)

[b]Emissions from ICE39, ICE40, and ICE41 added to and modeled from ICE38

[c]Emissions from ICE37 added to and modeled from ICE35

Table 5-11. Source Contribution to Cancer Risk at the On-Campus MEI[a] in the LRDP Scenario

Rank	Source ID	Location	% of Total	Cancer Risk
1	ICE10	Cogen Plant	33.5	2.5E-06
2	TURB2	Cogen Plant	7.5	5.6E-07
3	TURB1	Cogen Plant	5.8	4.4E-07
4	LAB24	CNSI - COS	5.5	4.1E-07
5	ICE56	CNSI - COS	4.8	3.6E-07
6	LAB5	Physical Sciences Area	4.7	3.5E-07
7	ICE51	HSSRB #1	3.4	2.5E-07
8	ICE38	Medical Center	3.2	2.4E-07
9	ICE42	Medical Center #5	3.1	2.3E-07
10	ICE53	Luck Ctr	2.3	1.7E-07
11	LAB4	Health Sciences Area	2.1	1.6E-07
12	LAB19	HSSRB #2	2.1	1.6E-07
13	ICE52	HSSRB #2	2.1	1.6E-07
14	ICE54	HSSRB #3	1.9	1.4E-07
15	LAB18	HSSRB #1	1.6	1.2E-07
16	LAB21	HSSRB #3	1.6	1.2E-07
17	ICE55	Stein 3	1.5	1.1E-07
18	LAB20	Luck Research Center	1.4	1.1E-07
19	ICE50	Ambulatory	1.1	8.0E-08
20	ICE48	Env Svcs Fac	0.9	7.1E-08
21	LAB23	Engr I Replacement	0.9	7.0E-08
22	LAB22	Stein 3	0.8	6.3E-08
23	ICE34	Gonda	0.7	4.9E-08
24	ICE44	MRL	0.6	4.8E-08
25	ICE5	De Neve	0.6	4.8E-08
26	ICE2	Kerckhoff Hall	0.6	4.3E-08
27	ICE1	Ackerman Hall	0.5	4.1E-08
28	ICE35	Medical Plaza	0.5	4.1E-08
29	ICE46	SEAS	0.4	3.3E-08
30	ICE20	UCPD	0.4	3.1E-08
31	ICE8	Dykstra Hall	0.4	2.8E-08
32	LAB15	Physics & Astronomy	0.3	2.5E-08
33	LAB16	Ambulatory Care	0.3	2.4E-08
34	ICE16	MSB	0.3	2.1E-08
35	DISP1	Fleet Services	0.3	1.9E-08
36	ICE7	Sproul Hall	0.3	1.9E-08
37	ICE36	Medical Plaza (Roof)	0.2	1.8E-08
38	ICE49	Phy & Ast/Knudsen	0.2	1.7E-08
39	ICE22	Medical Plaza Pk 1	0.2	1.5E-08
40	ICE17	STRB	0.2	1.4E-08
41	ICE11	Young Hall	0.1	1.1E-08
42	ICE3	Covel	0.1	1.0E-08
43	ICE9	Rieber Hall	0.1	1.0E-08
44	ICE6	Hedrick Hall	0.1	7.7E-09
45	LAB13	WW Hospital	0.1	7.7E-09

Rank	Source ID	Location	% of Total	Cancer Risk
46	LAB1	Rehab Center	0.1	6.5E-09
47	BOIL5	Cogen Plant	0.1	6.1E-09
48	LAB9	Melnitz/Macgowan Halls	0.0	1.4E-09
			Total Risk:	**7.5E-06**

[a]Receptor #7 in ACE 2588 output, UTM Coordinates 367182m, 3770618m (Daycare at Franz Hall)

Table 5-12. Cancer Risk at the Off-campus MEI by Substance and by Exposure Pathway[a] in the LRDP Scenario

Substance	Inhalation	Dermal	Soil	Plants	Total	% of Total
Acetaldehyde	3.8E-09	0.0E+00	0.0E+00	0.0E+00	3.8E-09	0.1
Arsenic	2.0E-09	5.1E-11	2.4E-09	1.0E-09	5.5E-09	0.1
Benzene	1.8E-07	0.0E+00	0.0E+00	0.0E+00	1.8E-07	2.8
Benzyl Chloride	2.3E-09	0.0E+00	0.0E+00	0.0E+00	2.3E-09	0.0
Beryllium	2.5E-10	0.0E+00	0.0E+00	0.0E+00	2.5E-10	0.0
Butadiene, 1,3-	2.7E-09	0.0E+00	0.0E+00	0.0E+00	2.7E-09	0.0
Cadmium	4.3E-10	0.0E+00	0.0E+00	0.0E+00	4.3E-10	0.0
Carbon Tetrachloride	1.6E-07	0.0E+00	0.0E+00	0.0E+00	1.6E-07	2.5
Chloroform	4.9E-07	0.0E+00	0.0E+00	0.0E+00	4.9E-07	7.6
Chromium Hexavalent	1.5E-08	2.4E-11	1.1E-10	4.5E-11	1.6E-08	0.2
Dichlorobenzene, p-	2.4E-10	0.0E+00	0.0E+00	0.0E+00	2.4E-10	0.0
Diesel Exhaust (particulates)	4.0E-06	0.0E+00	0.0E+00	0.0E+00	4.0E-06	62.7
Dioxane, 1,4-	4.8E-08	0.0E+00	0.0E+00	0.0E+00	4.8E-08	0.7
Epichlorohydrin	1.2E-09	0.0E+00	0.0E+00	0.0E+00	1.2E-09	0.0
Ethylene Dichloride	6.4E-10	0.0E+00	0.0E+00	0.0E+00	6.4E-10	0.0
Formaldehyde	3.4E-07	0.0E+00	0.0E+00	0.0E+00	3.4E-07	5.4
Hydrazine	2.6E-07	0.0E+00	0.0E+00	0.0E+00	2.6E-07	4.0
Lead	4.9E-12	1.9E-13	9.1E-12	3.8E-12	1.8E-11	0.0
Methyl Tert Butyl Ether	2.8E-09	0.0E+00	0.0E+00	0.0E+00	2.8E-09	0.0
Methylene Chloride	2.3E-07	0.0E+00	0.0E+00	0.0E+00	2.3E-07	3.6
Nickel	5.3E-11	0.0E+00	0.0E+00	0.0E+00	5.3E-11	0.0
PAH (carcinogenic)	4.4E-08	4.2E-08	6.6E-08	4.8E-07	6.4E-07	9.9
Perchloroethylene	4.4E-09	0.0E+00	0.0E+00	0.0E+00	4.4E-09	0.1
Propylene Oxide	3.7E-09	0.0E+00	0.0E+00	0.0E+00	3.7E-09	0.1
Trichloroethylene	1.9E-09	0.0E+00	0.0E+00	0.0E+00	1.9E-09	0.0
Vinyl Chloride	3.6E-09	0.0E+00	0.0E+00	0.0E+00	3.6E-09	0.1
Total	**5.8E-06**	**4.2E-08**	**6.9E-08**	**4.8E-07**	**6.4E-06**	**100**

[a]Receptor #47 in ACE 2588 output, UTM Coordinates 367313m, 3770554m (along Hilgard Avenue)

Table 5-13. Cancer Risk at the On-campus MEI by Substance and by Exposure Pathway[a] in the LRDP Scenario

Substance	Inhalation	Dermal	Soil	Plants	Total	% of Total
Acetaldehyde	5.4E-09	0.0E+00	0.0E+00	0.0E+00	5.4E-09	0.1
Arsenic	2.9E-09	7.3E-11	3.5E-09	1.4E-09	7.9E-09	0.1
Benzene	2.0E-07	0.0E+00	0.0E+00	0.0E+00	2.0E-07	2.6
Benzyl Chloride	3.4E-09	0.0E+00	0.0E+00	0.0E+00	3.4E-09	0.0
Beryllium	3.5E-10	0.0E+00	0.0E+00	0.0E+00	3.5E-10	0.0
Butadiene, 1,3-	3.9E-09	0.0E+00	0.0E+00	0.0E+00	3.9E-09	0.1
Cadmium	6.2E-10	0.0E+00	0.0E+00	0.0E+00	6.2E-10	0.0
Carbon Tetrachloride	1.7E-07	0.0E+00	0.0E+00	0.0E+00	1.7E-07	2.3
Chloroform	5.2E-07	0.0E+00	0.0E+00	0.0E+00	5.2E-07	7.0
Chromium Hexavalent	2.2E-08	3.4E-11	1.6E-10	6.5E-11	2.2E-08	0.3
Dichlorobenzene, p-	3.5E-10	0.0E+00	0.0E+00	0.0E+00	3.5E-10	0.0
Diesel Exhaust (particulates)	4.7E-06	0.0E+00	0.0E+00	0.0E+00	4.7E-06	62.4
Dioxane, 1,4-	5.1E-08	0.0E+00	0.0E+00	0.0E+00	5.1E-08	0.7
Epichlorohydrin	1.3E-09	0.0E+00	0.0E+00	0.0E+00	1.3E-09	0.0
Ethylene Dichloride	9.2E-10	0.0E+00	0.0E+00	0.0E+00	9.2E-10	0.0
Formaldehyde	4.2E-07	0.0E+00	0.0E+00	0.0E+00	4.2E-07	5.6
Hydrazine	2.7E-07	0.0E+00	0.0E+00	0.0E+00	2.7E-07	3.7
Lead	7.1E-12	2.8E-13	1.3E-11	5.5E-12	2.6E-11	0.0
Methyl Tert Butyl Ether	3.4E-09	0.0E+00	0.0E+00	0.0E+00	3.4E-09	0.0
Methylene Chloride	2.4E-07	0.0E+00	0.0E+00	0.0E+00	2.4E-07	3.3
Nickel	7.7E-11	0.0E+00	0.0E+00	0.0E+00	7.7E-11	0.0
PAH (carcinogenic)	6.0E-08	5.7E-08	9.0E-08	6.5E-07	8.6E-07	11.5
Perchloroethylene	5.7E-09	0.0E+00	0.0E+00	0.0E+00	5.7E-09	0.1
Propylene Oxide	5.3E-09	0.0E+00	0.0E+00	0.0E+00	5.3E-09	0.1
Trichloroethylene	2.1E-09	0.0E+00	0.0E+00	0.0E+00	2.1E-09	0.0
Vinyl Chloride	5.1E-09	0.0E+00	0.0E+00	0.0E+00	5.1E-09	0.1
Total	**6.7E-06**	**5.7E-08**	**9.3E-08**	**6.5E-07**	**7.5E-06**	**100**

[a]Receptor #7 in ACE 2588 output, UTM Coordinates 367182m, 3770618m (Daycare at Franz Hall)

Table 5-14. Chronic Noncancer Hazard Index at the Off- and On-Campus MEIs in the LRDP Scenario

Target Organ	Substance	Off-campus Chronic HI[a]	On-campus Chronic HI[b]
Cardiovascular	Arsenic	2.8E-05	4.1E-05
	Benzene	1.0E-04	1.1E-04
	Dioxane, 1,4-	2.1E-06	2.2E-06
	Methylene Chloride	5.7E-04	6.1E-04
	Nickel	4.1E-06	5.9E-06
	Selenium	5.1E-09	7.4E-09
	Zinc	6.4E-08	9.3E-08
Total		**7.1E-04**	**7.7E-04**
Central Nervous System	Arsenic	2.8E-05	4.1E-05
	Benzene	1.0E-04	1.1E-04
	Carbon Tetrachloride	9.4E-05	1.0E-04
	Dichlorobenzene, p-	2.8E-08	4.0E-08
	Hexane	6.4E-07	7.1E-07
	Manganese	2.6E-05	3.7E-05
	Mercury Compounds	2.0E-06	2.9E-06
	Methyl Bromide	5.2E-02	5.6E-02
	Methylene Chloride	5.7E-04	6.1E-04
	Toluene	9.4E-05	1.1E-04
	Trichloroethane, 1,1,1-	2.4E-06	2.6E-06
	Trichloroethylene	1.6E-06	1.7E-06
	Xylenes	1.6E-05	1.9E-05
Total		**5.3E-02**	**5.7E-02**
Immune	Beryllium	1.5E-05	2.1E-05
	Triethylamine	2.7E-04	2.8E-04
Total		**2.8E-04**	**3.1E-04**
Kidney	Cadmium	6.3E-06	9.0E-06
	Chlorobenzene	5.0E-08	7.2E-08
	Chloroform	3.1E-04	3.3E-04
	Dichlorobenzene, p-	2.8E-08	4.0E-08
	Dioxane, 1,4-	2.1E-06	2.2E-06
	Ethyl Benzene	6.9E-07	9.7E-07
	Isopropyl Alcohol	1.9E-05	2.1E-05
	Methyl Tert Butyl Ether	1.3E-06	1.7E-06
	Perchloroethylene	2.1E-05	2.8E-05
Total		**3.6E-04**	**3.9E-04**
Liver	Carbon Tetrachloride	9.4E-05	1.0E-04
	Chlorobenzene	5.0E-08	7.2E-08
	Chloroform	3.1E-04	3.3E-04
	Dichlorobenzene, p-	2.8E-08	4.0E-08
	Dimethylformamide	3.0E-05	3.2E-05
	Dioxane, 1,4-	2.1E-06	2.2E-06
	Ethyl Benzene	6.9E-07	9.7E-07
	Ethylene Dichloride	7.2E-08	1.0E-07

Target Organ	Substance	Off-campus Chronic HI[a]	On-campus Chronic HI[b]
	Hydrazine	2.6E-04	2.8E-04
	Methyl Tert Butyl Ether	1.3E-06	1.7E-06
	Perchloroethylene	2.1E-05	2.8E-05
	Selenium	5.1E-09	7.4E-09
	Vinyl Chloride	1.8E-06	2.5E-06
	Vinylidene Chloride	4.1E-07	6.0E-07
	Zinc	6.4E-08	9.3E-08
Total		**7.2E-04**	**7.7E-04**
Reproductive	Arsenic	2.8E-05	4.1E-05
	Benzene	1.0E-04	1.1E-04
	Butadiene, 1,3-	8.0E-07	1.1E-06
	Carbon Tetrachloride	9.4E-05	1.0E-04
	Chlorobenzene	5.0E-08	7.2E-08
	Chloroform	3.1E-04	3.3E-04
	Ethyl Benzene	6.9E-07	9.7E-07
	Isopropyl Alcohol	1.9E-05	2.1E-05
	Methanol	1.6E-04	1.7E-04
	Methyl Bromide	5.2E-02	5.6E-02
	Toluene	9.4E-05	1.1E-04
	Vinyl Chloride	1.8E-06	2.5E-06
Total		**5.3E-02**	**5.7E-02**
Respiratory	Acetaldehyde	1.6E-04	2.2E-04
	Acetonitrile	1.7E-03	1.8E-03
	Acrolein	3.7E-03	5.4E-03
	Antimony	3.1E-06	4.4E-06
	Benzyl Chloride	4.0E-06	5.7E-06
	Beryllium	1.5E-05	2.1E-05
	Bromine Compounds	3.2E-04	3.4E-04
	Butyl Alcohol, Tert-	2.7E-04	2.9E-04
	Cadmium	5.1E-06	7.4E-06
	Chromium Hexavalent	5.1E-07	7.4E-07
	Copper	1.7E-07	2.5E-07
	Dichlorobenzene, p-	2.8E-08	4.0E-08
	Diesel Exhaust (particulates)	2.7E-03	3.1E-03
	Dimethylformamide	3.0E-05	3.2E-05
	Epichlorohydrin	1.7E-05	1.9E-05
	Ethanol	7.5E-04	8.0E-04
	Ethyl Acetate	1.0E-04	1.1E-04
	Ethyl Ether	2.5E-04	2.7E-04
	Formaldehyde	1.9E-02	2.3E-02
	Glutaraldehyde	1.4E-02	1.5E-02
	Hydrogen Chloride	1.1E-02	1.2E-02
	Hydrogen Fluoride	6.0E-04	6.4E-04
	Methyl Bromide	5.2E-02	5.6E-02

Target Organ	Substance	Off-campus Chronic HI[a]	On-campus Chronic HI[b]
	Naphthalene	6.5E-06	8.8E-06
	Nickel	4.1E-06	5.9E-06
	PAH (carcinogenic)	8.4E-05	1.1E-04
	Propylene	5.4E-04	5.7E-04
	Phosgene	1.1E-07	1.2E-07
	Propylene Oxide	3.3E-05	4.8E-05
	Pyridine	1.1E-03	1.2E-03
	Selenium	5.1E-09	7.4E-09
	Tetrahydrofuran	1.2E-04	1.3E-04
	Toluene	9.4E-05	1.1E-04
	Triethylamine	2.7E-04	2.8E-04
	Xylenes	1.6E-05	1.9E-05
	Zinc	6.4E-08	9.3E-08
Total		**1.1E-01**	**1.2E-01**
Eye	Hydrogen Fluoride	6.0E-04	6.4E-04
Total		**6.0E-04**	**6.4E-04**

[a]Receptor #47 in ACE 2588 output, UTM Coordinates 367313m, 3770554m (along Hilgard Avenue)
[b]Receptor #7 in ACE 2588 output, UTM Coordinates 367182m, 3770618m (Daycare at Franz Hall)

Table 5-15. Acute Noncancer Hazard Index at the Off- and On-Campus MEIs in the LRDP Scenario

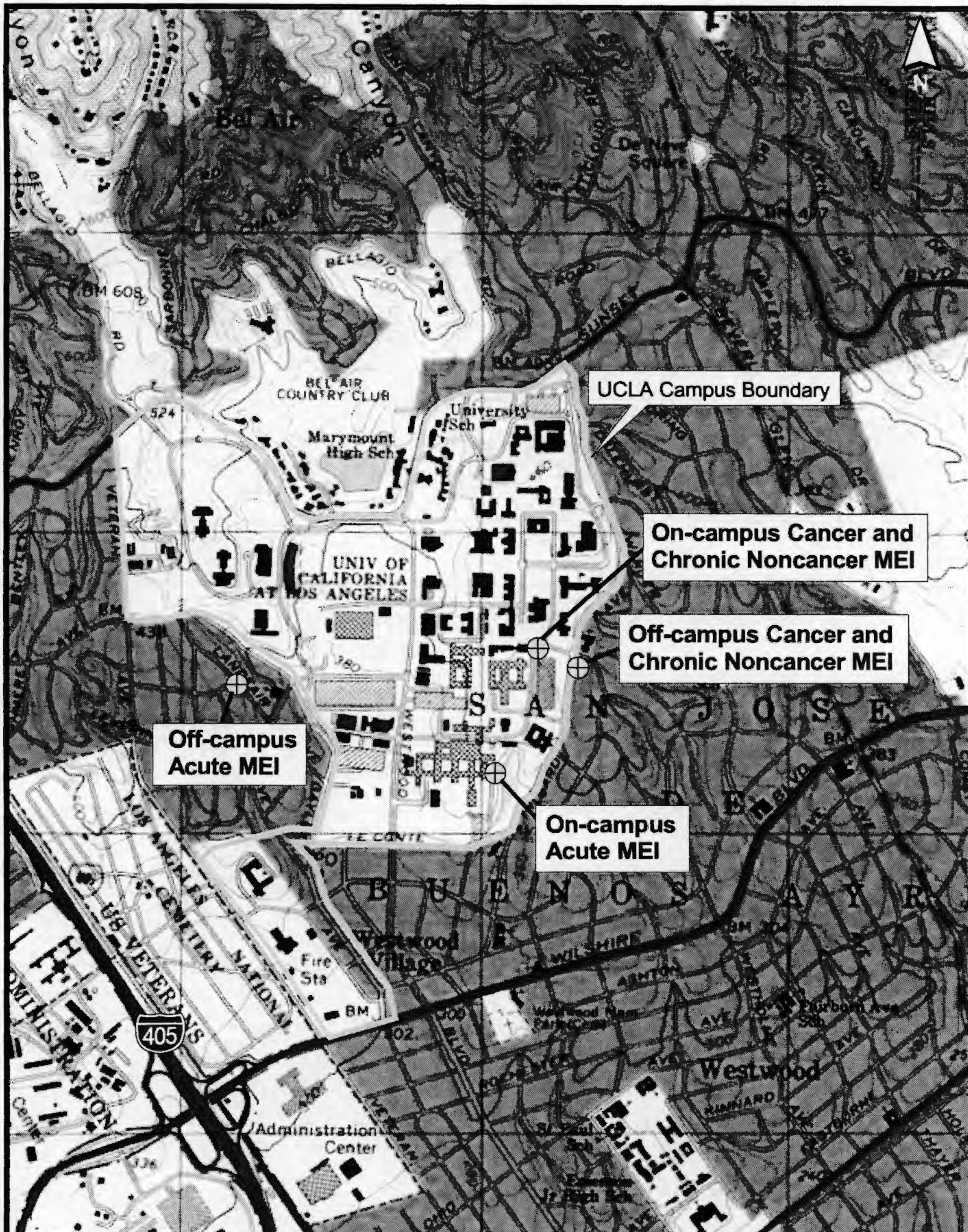
Target Organ	Substance	Off-campus Acute HI[a]	On-campus Acute HI[b]
Cardiovascular	Benzene	1.2E-03	1.3E-03
Total		**1.2E-03**	**1.3E-03**
Central Nervous System	Carbon Tetrachloride	2.2E-05	5.8E-05
	Chloroform	6.8E-03	1.8E-02
	Methanol	2.5E-04	6.8E-04
	Methyl Bromide	7.4E-04	2.0E-03
	Methylene Chloride	1.8E-04	4.8E-04
	Perchloroethylene	1.5E-06	4.5E-07
	Toluene	1.6E-04	7.1E-05
	Trichloroethane, 1,1,1-	3.9E-07	1.0E-06
	Triethylamine	7.4E-06	2.0E-05
	Vinyl Chloride	1.6E-08	4.6E-09
Total		**8.1E-03**	**2.1E-02**
Immune	Benzene	1.2E-03	1.3E-03
	Formaldehyde	2.0E-02	1.0E-02
	Nickel	2.1E-06	6.2E-07
Total		**2.1E-02**	**1.2E-02**
Liver	Carbon Tetrachloride	2.2E-05	5.8E-05
Total		**2.2E-05**	**5.8E-05**
Reproductive	Arsenic	2.0E-04	5.8E-05
	Benzene	1.2E-03	1.3E-03
	Carbon Tetrachloride	2.2E-05	5.8E-05
	Chloroform	6.8E-03	1.8E-02
	Mercury Compounds	2.1E-06	6.1E-07
	Methyl Bromide	7.4E-04	2.0E-03
	Propylene Oxide	2.0E-05	5.8E-06
	Toluene	1.6E-04	7.1E-05
Total		**9.1E-03**	**2.2E-02**
Respiratory	Acetonitrile	7.0E-05	1.9E-04
	Acrolein	1.2E-01	9.1E-02
	Antimony	7.6E-07	2.2E-07
	Benzyl Chloride	1.2E-05	3.6E-06
	Beryllium	3.2E-05	9.2E-06
	Bromine Compounds	9.0E-05	2.4E-04
	Butyl Alcohol, Tert-	7.0E-05	1.9E-04
	Cadmium	1.3E-05	3.7E-06
	Chromium Hexavalent	1.5E-07	4.3E-08
	Copper	2.5E-07	7.4E-08
	Dichlorobenzene, p-	2.3E-07	6.6E-08
	Dimethylformamide	8.9E-06	2.4E-05
	Dioxane, 1,4-	2.3E-05	6.1E-05
	Epichlorohydrin	4.4E-07	1.2E-06
	Ethanol	2.0E-04	5.3E-04
	Ethyl Acetate	1.1E-05	2.9E-05

Target Organ	Substance	Off-campus Acute HI[a]	On-campus Acute HI[b]
	Ethyl Benzene	1.9E-05	8.8E-06
	Ethyl Ether	6.9E-06	1.9E-05
	Formaldehyde	2.0E-02	1.0E-02
	Glutaraldehyde	6.1E-04	1.6E-03
	Hexane	2.0E-04	9.9E-05
	Hydrazine	4.4E-04	1.2E-03
	Hydrogen Chloride	5.2E-04	1.4E-03
	Hydrogen Fluoride	1.6E-04	4.4E-04
	Isopropyl Alcohol	4.7E-04	1.2E-03
	Manganese	1.6E-05	4.6E-06
	Methyl Bromide	7.4E-04	2.0E-03
	Naphthalene	1.2E-05	5.7E-05
	Nickel	2.1E-06	6.2E-07
	PAH (carcinogenic)	2.0E-03	9.0E-03
	Perchloroethylene	1.5E-06	4.5E-07
	Phosgene	4.4E-04	1.2E-03
	Propylene Oxide	2.0E-05	5.8E-06
	Pyridine	1.2E-05	3.2E-05
	Selenium	3.2E-07	9.2E-08
	Tetrahydrofuran	6.8E-06	1.8E-05
	Toluene	1.6E-04	7.1E-05
	Trichloroethylene	4.0E-07	9.8E-07
	Vinyl Chloride	1.6E-08	4.6E-09
	Xylenes	9.2E-05	4.1E-05
	Zinc	2.8E-06	8.1E-07
Total		**1.5E-01**	**1.2E-01**
Eye	Acrolein	1.2E-01	9.1E-02
	Benzyl Chloride	1.2E-05	3.6E-06
	Dioxane, 1,4-	2.3E-05	6.1E-05
	Epichlorohydrin	4.4E-07	1.2E-06
	Formaldehyde	2.0E-02	1.0E-02
	Hydrogen Chloride	5.2E-04	1.4E-03
	Hydrogen Fluoride	1.6E-04	4.4E-04
	Isopropyl Alcohol	4.7E-04	1.2E-03
	Perchloroethylene	1.5E-06	4.5E-07
	Propylene Oxide	2.0E-05	5.8E-06
	Selenium	3.2E-07	9.2E-08
	Toluene	1.6E-04	7.1E-05
	Triethylamine	7.4E-06	2.0E-05
	Vinyl Chloride	1.6E-08	4.6E-09
	Xylenes	9.2E-05	4.1E-05
Total		**1.4E-01**	**1.0E-01**

[a]Receptor #316 in ACE 2588 output, UTM Coordinates 366177m, 3770497m (200m W of campus boundary)
[b]Receptor #3 in ACE 2588 output, UTM Coordinates 367040m, 3770202m (UCLA Medical Center)

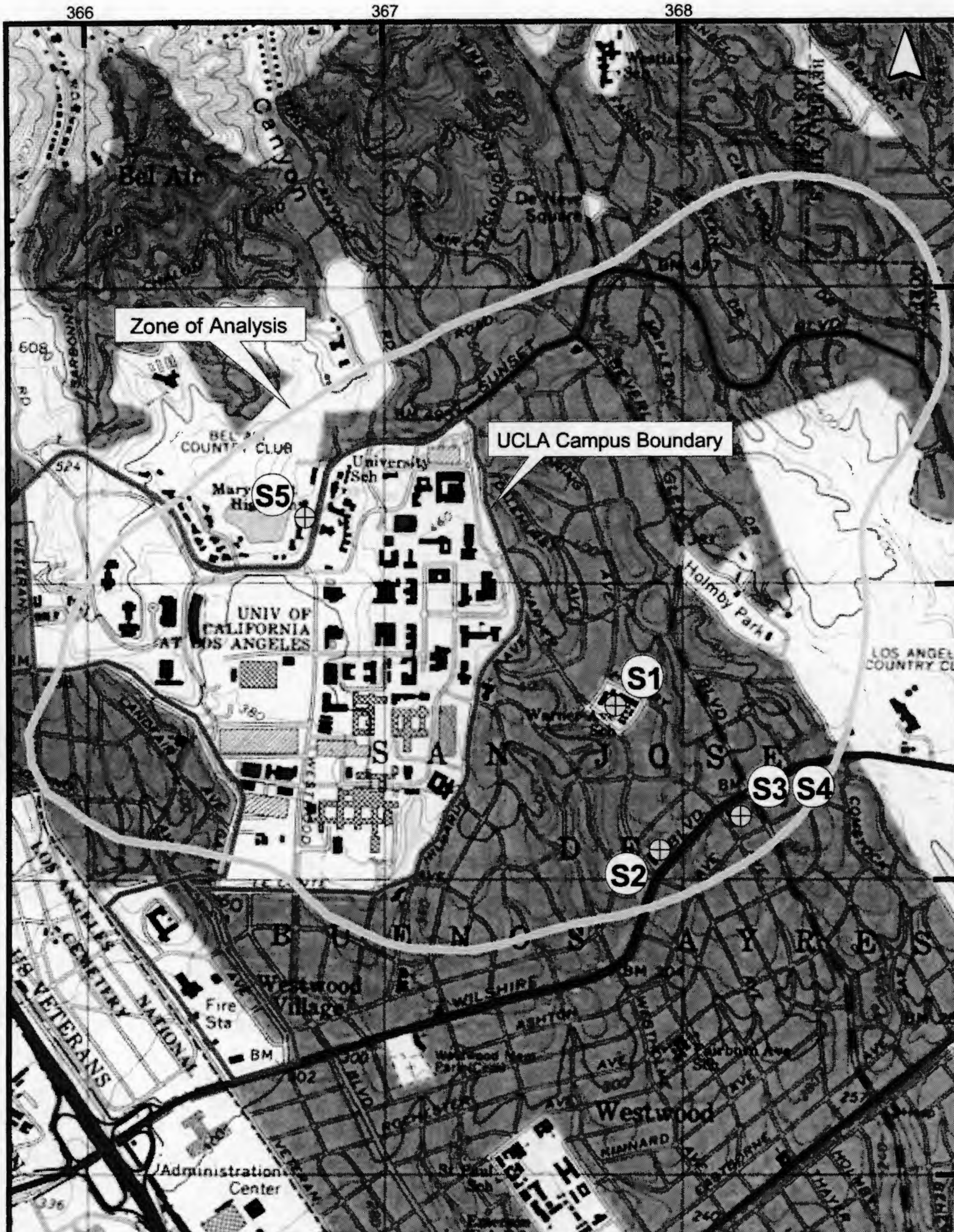
Table 5-16. Summary of HRA Results for the Sensitive Receptors within the ZOA in the LRDP Scenario

Number	Description	Address	Type	UTM Coordinates East (m)	UTM Coordinates North (m)	Heath Risks Cancer	Heath Risks Chronic HI	Heath Risks Acute HI
S1	Warner Avenue Elementary School	615 Holmby Ave. Los Angeles, CA 90024	School	367798	3770593	2.0E-06	0.03	0.05
S2	Westwood Unified Methodist Church Preschool	10497 Wilshire Blvd. Los Angeles, CA 90024	Day Care	367898	3770112	1.1E-06	0.02	0.04
S3	Sinai Temple Akiba Academy	10400 Wilshire Blvd. Los Angeles, CA 90024	School	368169	3770227	1.3E-06	0.02	0.04
S4	Sinai Temple Akiba Preschool	10400 Wilshire Blvd. Los Angeles, CA 90024	Day Care	368169	3770227	1.3E-06	0.02	0.04
S5	Marymount High School	10643 Sunset Blvd. Los Angeles, CA 90077	School	366716	3771216	1.6E-06	0.01	0.04



Locations of the Cancer, Chronic and Acute Noncancer Off- and On-Campus MEIs in the Existing and LRDP Scenarios

Project No: 57-00131199.01	Date: July 2002	Project: UCLA LRDP Update HRA	Figure 5-1



Location of the Carcinogenic Zone of Analysis (1 x 10^{-6}) and Sensitive Receptors in the Existing and LRDP Scenarios

Project No: 57-00131199.01	Date: July 2002	Project: UCLA LRDP Update HRA	Figure 5-2

6.0 REFERENCES

CAPCOA. CAPCOA Air Toxics "Hot Spots" Program, Risk Assessment Guidelines. October 1993.

EPA. Industrial Source Complex (ISC) Dispersion Model User's Guide, Volume 1. EPA-454/B-95-003a, 1995.

SCAQMD. Office of Stationary Source Compliance. Supplemental Guidelines for Preparing Risk Assessments to Comply with the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588). July 1996.

URS Corporation. UC Berkeley, Central Campus Human Health Risk Assessment. June 2000.

Appendices are available upon request. Send fax request to UCLA Campus and Environmental Planning, (310) 206-1510, and provide name and address. Appendices are also available for review at UCLA Capital Programs, 3rd floor, 1060 Veteran Avenue, Los Angeles, California 90095 during normal business hours.

Appendix 8 Noise Analysis Data

ON-SITE TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 10328-07
Project Name: UCLA LRDP

Background Information

Model Description:	FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.			
Source of Traffic Volumes:	Crain & Associates			
Community Noise Descriptor:	L_{dn}: ______	CNEL:	X	

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway Name Roadway Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Distance from Centerline of Roadway CNEL at 75 Feet	Distance to Contour 70 CNEL	Distance to Contour 65 CNEL	Distance to Contour 60 CNEL
Existing Traffic Volumes (Regular Session)											
Sunset Blvd.											
Veteran Ave. to Bellagio Rd.	4	14	36,500	35	0.5	2.0%	2.0%	68.0	55	118	255
Bellagio Rd. to Westwood B	4	14	32,900	35	0.5	2.0%	2.0%	67.5	51	110	238
Westwood Blvd. to Stone Cy	4	14	31,600	35	0.5	2.0%	2.0%	67.3	50	108	232
Stone Cyn. To Copa De Oro	4	14	29,320	35	0.5	2.0%	2.0%	67.0	47	102	220
Hilgard Ave.											
Sunset Blvd. to Wyton Dr.	4	0	13,580	30	0.5	2.0%	2.0%	63.1	26	56	120
Wyton Dr. to Westholme Av	4	14	14,600	30	0.5	2.0%	2.0%	63.6	-	60	130
Westholme Ave. to Manning	4	14	18,870	30	0.5	2.0%	2.0%	64.7	33	71	154
Manning to Le Conte Ave.	4	14	17,980	30	0.5	2.0%	2.0%	64.5	32	69	149
Le Conte Ave.											
Gayley Ave. to Westwood Bl	2	0	12,660	30	0.5	2.0%	2.0%	62.6	24	52	111
Westwood Ave. to Tiverton /	2	0	12,840	30	0.5	2.0%	2.0%	62.6	24	52	112
Tiverton Ave. to Hilgard Ave	2	0	20,100	30	0.5	2.0%	2.0%	64.6	33	70	152
Gayley Ave.											
Le Conte Ave. to Strathmore	2	0	16,930	30	0.5	2.0%	2.0%	63.8	29	63	135
Strathmore Pl. to Veteran Av	2	0	10,350	30	0.5	2.0%	2.0%	61.7	21	45	97
Veteran Ave.											
Sunset Blvd. to Gayley Ave.	2	0	12,750	35	0.5	2.0%	2.0%	63.0	26	56	120
Westwood PL.											
north of Le Conte Ave.	4	0	14,800	25	0.5	2.0%	2.0%	62.2	-	49	105
Westwood Blvd..											
south of Sunset Blvd.	4	0	5,900	25	0.5	2.0%	2.0%	58.2	-	26	57
Strathmore Pl.											
east of Gayley Ave.	4	0	15,700	25	0.5	2.0%	2.0%	62.5	-	51	109
Bellagio Rd.											
south of Sunset Blvd.	2	0	5,440	25	0.5	2.0%	2.0%	57.7	-	24	53
Stone Cayon Rd.											
south of Sunset Blvd.	2	0	3,460	25	0.5	2.0%	2.0%	55.7	-	18	39
Wyton Dr.											
west of Hilgard Ave.	2	0	6,000	25	0.5	2.0%	2.0%	58.1	12	26	56
Westholme Ave.											
west of Hilgard Ave.	2	0	7,390	25	0.5	2.0%	2.0%	59.0	14	30	64

Analysis Condition Roadway Name Roadway Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks	 Heavy Trucks	Distance from Centerline of Roadway CNEL at 75 Feet	 Distance to Contour 70 CNEL	 65 CNEL	 60 CNEL
Existing Traffic Volumes (Summer Session)											
Sunset Blvd.											
Veteran Ave. to Bellagio Rd.	4	14	36,020	35	0.5	2.0%	2.0%	67.9	54	117	253
Bellagio Rd. to Westwood B	4	14	31,360	35	0.5	2.0%	2.0%	67.3	50	107	230
Westwood Blvd. to Stone Cy	4	14	30,700	35	0.5	2.0%	2.0%	67.2	49	105	227
Stone Cyn. To Copa De Oro	4	14	29,070	35	0.5	2.0%	2.0%	67.0	47	102	219
Hilgard Ave.											
Sunset Blvd. to Wyton Dr.	4	0	12,930	30	0.5	2.0%	2.0%	62.8	25	54	116
Wyton Dr. to Westholme Ave	4	14	13,980	30	0.5	2.0%	2.0%	63.4	-	58	126
Westholme Ave. to Manning	4	14	14,490	30	0.5	2.0%	2.0%	63.5	-	60	129
Manning to Le Conte Ave.	4	14	14,530	30	0.5	2.0%	2.0%	63.5	-	60	129
Le Conte Ave.											
Gayley Ave. to Westwood Bl	2	0	12,010	30	0.5	2.0%	2.0%	62.3	23	50	108
Westwood Ave. to Tiverton /	2	0	12,210	30	0.5	2.0%	2.0%	62.4	23	50	109
Tiverton Ave. to Hilgard Ave	2	0	8,870	30	0.5	2.0%	2.0%	61.0	19	41	88
Gayley Ave.											
Le Conte Ave. to Strathmore	2	0	16,120	30	0.5	2.0%	2.0%	63.6	28	61	131
Strathmore Pl. to Veteran Av	2	0	11,680	30	0.5	2.0%	2.0%	62.2	23	49	106
Veteran Ave.											
Sunset Blvd. to Gayley Ave.	2	0	14,910	35	0.5	2.0%	2.0%	63.7	29	62	133
Westwood PL.											
north of Le Conte Ave.	4	0	16,600	25	0.5	2.0%	2.0%	62.7	24	53	113
Westwood Blvd..											
south of Sunset Blvd.	4	0	4,960	25	0.5	2.0%	2.0%	57.5	-	-	51
Strathmore Pl.											
east of Gayley Ave.	4	0	10,520	25	0.5	2.0%	2.0%	60.7	-	39	84
Bellagio Rd.											
south of Sunset Blvd.	2	0	4,310	25	0.5	2.0%	2.0%	56.7	-	21	45
Stone Cayon Rd.											
south of Sunset Blvd.	2	0	2,850	25	0.5	2.0%	2.0%	54.9	-	16	34
Wyton Dr.											
west of Hilgard Ave.	2	0	4,910	25	0.5	2.0%	2.0%	57.2	-	23	49
Westholme Ave.											
west of Hilgard Ave.	2	0	6,120	25	0.5	2.0%	2.0%	58.2	12	26	57

Analysis Condition Roadway Name Roadway Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks	Heavy Trucks	Distance from Centerline of Roadway CNEL at 75 Feet	Distance to Contour 70 CNEL	65 CNEL	60 CNEL
Future Plus Project Traffic Volumes (Regular Session)											
Sunset Blvd.											
Veteran Ave. to Bellagio Rd.	4	14	38,460	35	0.5	2.0%	2.0%	68.2	57	123	264
Bellagio Rd. to Westwood B	4	14	35,620	35	0.5	2.0%	2.0%	67.9	54	116	251
Westwood Blvd. to Stone Cy	4	14	33,750	35	0.5	2.0%	2.0%	67.6	52	112	242
Stone Cyn. To Copa De Oro	4	14	31,930	35	0.5	2.0%	2.0%	67.4	50	108	233
Hilgard Ave.											
Sunset Blvd. to Wyton Dr.	4	0	14,840	30	0.5	2.0%	2.0%	63.4	27	59	127
Wyton Dr. to Westholme Av	4	14	17,630	30	0.5	2.0%	2.0%	64.4	32	68	147
Westholme Ave. to Manning	4	14	20,230	30	0.5	2.0%	2.0%	65.0	35	75	161
Manning to Le Conte Ave.	4	14	20,510	30	0.5	2.0%	2.0%	65.0	35	75	162
Le Conte Ave.											
Gayley Ave. to Westwood Bl	2	0	14,380	30	0.5	2.0%	2.0%	63.1	26	56	121
Westwood Ave. to Tiverton /	2	0	15,240	30	0.5	2.0%	2.0%	63.4	27	59	126
Tiverton Ave. to Hilgard Ave	2	0	12,640	30	0.5	2.0%	2.0%	62.6	24	52	111
Gayley Ave.											
Le Conte Ave. to Strathmore	2	0	17,980	30	0.5	2.0%	2.0%	64.1	30	65	141
Strathmore Pl. to Veteran Av	2	0	11,710	30	0.5	2.0%	2.0%	62.2	23	49	106
Veteran Ave.											
Sunset Blvd. to Gayley Ave.	2	0	12,220	35	0.5	2.0%	2.0%	62.9	25	54	116
Westwood Pl.											
north of Le Conte Ave.	4	0	16,690	25	0.5	2.0%	2.0%	62.7	25	53	114
Westwood Pl.											
south of Sunset Blvd.	4	0	6,360	25	0.5	2.0%	2.0%	58.5	-	28	60
Strathmore Pl.											
east of Gayley Ave.	4	0	17,770	25	0.5	2.0%	2.0%	63.0	26	55	119
Bellagio Rd.											
south of Sunset Blvd.	2	0	5,890	25	0.5	2.0%	2.0%	58.0	-	26	55
Stone Cayon Rd.											
south of Sunset Blvd.	2	0	3,680	25	0.5	2.0%	2.0%	56.0	-	19	40
Wyton Dr.											
west of Hilgard Ave.	2	0	7,270	25	0.5	2.0%	2.0%	58.9	14	30	64
Westholme Ave.											
west of Hilgard Ave.	2	0	8,570	25	0.5	2.0%	2.0%	59.7	15	33	71

Analysis Condition Roadway Name Roadway Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks	Heavy Trucks	Distance from Centerline of Roadway CNEL at 75 Feet	Distance to Contour 70 CNEL	65 CNEL	60 CNEL
Future Plus Project Traffic Volumes (Summer Session)											
Sunset Blvd.											
Veteran Ave. to Bellagio Rd.	4	14	40,710	35	0.5	2.0%	2.0%	68.4	59	127	274
Bellagio Rd. to Westwood B	4	14	34,720	35	0.5	2.0%	2.0%	67.8	53	114	247
Westwood Blvd. to Stone Cy	4	14	33,840	35	0.5	2.0%	2.0%	67.6	52	113	242
Stone Cyn. To Copa De Oro	4	14	32,570	35	0.5	2.0%	2.0%	67.5	51	110	236
Hilgard Ave.											
Sunset Blvd. to Wyton Dr.	4	0	14,960	30	0.5	2.0%	2.0%	63.5	28	59	128
Wyton Dr. to Westholme Av	4	14	17,550	30	0.5	2.0%	2.0%	64.4	32	68	146
Westholme Ave. to Manning	4	14	16,560	30	0.5	2.0%	2.0%	64.1	-	65	141
Manning to Le Conte Ave.	4	14	17,320	30	0.5	2.0%	2.0%	64.3	31	67	145
Le Conte Ave.											
Gayley Ave. to Westwood Bl	2	0	13,550	30	0.5	2.0%	2.0%	62.9	25	54	117
Westwood Ave. to Tiverton /	2	0	14,480	30	0.5	2.0%	2.0%	63.2	26	57	122
Tiverton Ave. to Hilgard Ave	2	0	11,880	30	0.5	2.0%	2.0%	62.3	23	50	107
Gayley Ave.											
Le Conte Ave. to Strathmore	2	0	18,020	30	0.5	2.0%	2.0%	64.1	30	65	141
Strathmore Pl. to Veteran Av	2	0	13,570	30	0.5	2.0%	2.0%	62.9	25	54	117
Veteran Ave.											
Sunset Blvd. to Gayley Ave.	2	0	14,160	35	0.5	2.0%	2.0%	63.5	28	60	128
Westwood PL.											
north of Le Conte Ave.	4	0	20,250	25	0.5	2.0%	2.0%	63.6	28	60	130
Westwood Blvd..											
south of Sunset Blvd.	4	0	6,180	25	0.5	2.0%	2.0%	58.4	-	27	59
Strathmore Pl.											
east of Gayley Ave.	4	0	13,120	25	0.5	2.0%	2.0%	61.7	-	45	97
Bellagio Rd.											
south of Sunset Blvd.	2	0	5,170	25	0.5	2.0%	2.0%	57.5	-	24	51
Stone Cayon Rd.											
south of Sunset Blvd.	2	0	3,290	25	0.5	2.0%	2.0%	55.5	-	17	38
Wyton Dr.											
west of Hilgard Ave.	2	0	6,360	25	0.5	2.0%	2.0%	58.4	13	27	58
Westholme Ave.											
west of Hilgard Ave.	2	0	7,460	25	0.5	2.0%	2.0%	59.1	14	30	65

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway lanes.

OFF-SITE TRAFFIC NOISE LEVELS

Project Number: 10328-07
Project Name: UCLA LRDP Update

Background Information

Model Description:	FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario(s):	Existing and Future Traffic Volumes
Source of Traffic Volumes:	Crain & Associates
Community Noise Descriptor:	L_{dn}: ____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition / Roadway Name / Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour dB(A) L_{eq}	24-Hour dB(A) CNEL
Existing Traffic Volumes (Regular Session)													
Wilshire Boulevard													
Glendon Ave. to Malcolm Ave.	Multi-Family	6	14	4,464	44,640	30	150	0	0	2.0%	2.0%	67.7	66.1
Malcolm Ave. to Westholme Ave.	Multi-Family	6	14	4,592	45,920	35	150	0	0	2.0%	2.0%	68.5	66.6
Westholme Ave. to Warner Ave.	Multi-Family	6	14	4,596	45,960	35	150	0	0	2.0%	2.0%	68.5	66.6
Westholme Ave. to Warner Ave.	Church	6	14	4,596	45,960	35	100	0.5	0	2.0%	2.0%	69.1	67.2
Warner Ave. to Beverly Glen Ave.	Multi-Family	6	14	4,593	45,930	35	100	0	0	2.0%	2.0%	70.5	68.6
Warner Ave. to Beverly Glen Ave.	Church	6	14	4,593	45,930	35	80	0.5	0	2.0%	2.0%	70.9	69.0
east of Beverly Glen Blvd.	Multi-Family	6	14	4,250	42,500	35	80	0	0	2.0%	2.0%	71.3	69.4
Sunset Boulevard													
west of Church St.	Single Family	4	14	4,072	40,720	35	100	0.5	0	2.0%	2.0%	68.3	66.4
Church St. to Sepulveda Blvd.	Single Family	4	14	3,527	35,270	35	100	0.5	0	2.0%	2.0%	67.7	65.8
Sepulveda Blvd. to Veteran Ave.	Single Family	4	14	3,390	33,900	35	100	0.5	0	2.0%	2.0%	67.5	65.6
Veteran Ave. to Bellagio Rd.	Single Family	4	14	3,650	36,500	35	100	0.5	0	2.0%	2.0%	67.8	65.9
Bellagio Rd. to Westwood Blvd.	Single Family	4	14	3,290	32,900	35	100	0.5	-8	2.0%	2.0%	59.4	57.5
Westwood Blvd. to Stone Cyn.	Single Family	4	14	3,160	31,600	35	75	0.5	0	2.0%	2.0%	69.3	67.3
Westwood Blvd. to Stone Cyn.	School	4	14	3,160	31,600	35	100	0.5	0	2.0%	2.0%	67.2	65.3
Westwood Blvd. to Stone Cyn.	School	4	14	3,160	31,600	35	75	0.5	0	2.0%	2.0%	69.3	67.3
Stone Cyn. To Copa De Oro Rd.	Single Family	4	14	2,932	29,320	35	75	0.5	0	2.0%	2.0%	68.9	67.0
Copa De Oro Rd. to Bel-Air Rd.	Single Family	4	14	3,220	32,200	35	80	0.5	0	2.0%	2.0%	68.9	67.0
Bel-Air Rd. to Beverly Glen Blvd.	Single Family	4	14	4,023	40,230	35	80	0.5	0	2.0%	2.0%	69.8	67.9
east of Beverly Glen Blvd.	Single Family	4	14	2,556	25,560	35	80	0.5	0	2.0%	2.0%	67.9	66.0
Hilgard Avenue													
Sunset Blvd. to Wyton Dr.	Single Family	4	0	1,358	13,580	30	75	0.5	0	2.0%	2.0%	64.7	63.1
Wyton Dr. to Westholme Ave.	Multi-Family	4	14	1,460	14,600	30	75	0.5	0	2.0%	2.0%	65.2	63.6
Westholme Ave. to Manning Ave.	Church	4	14	1,887	18,870	30	50	0.5	0	2.0%	2.0%	69.5	67.9
Westholme Ave. to Manning Ave.	Multi-Family	4	14	1,887	18,870	30	75	0.5	0	2.0%	2.0%	66.3	64.7
Manning to Le Conte Ave.	Multi-Family	4	0	1,798	17,980	30	50	0	0	2.0%	2.0%	68.7	67.1
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	1,198	11,980	30	50	0	0	2.0%	2.0%	66.7	65.0
Le Conte Ave. to Weyburn Ave.	Church	2	0	1,198	11,980	30	50	0.5	0	2.0%	2.0%	66.6	65.0
Weyburn Ave. to Lindbrook Ave.	Multi-Family	2	0	1,121	11,210	30	50	0	0	2.0%	2.0%	66.4	64.7
Le Conte Avenue													
east of Hilgard Ave.	Multi-Family	2	0	366	3,660	30	40	0.5	0	2.0%	2.0%	63.0	61.3
Gayley Avenue													
Weyburn Ave. to Le Conte Ave.	Multi-Family	2	14	2,323	23,230	35	75	0	0	2.0%	2.0%	68.5	66.6
Le Conte Ave. to Strathmore Pl.	Multi-Family	2	0	1,693	16,930	30	50	0	0	2.0%	2.0%	68.2	66.5
Strathmore Pl. to Veteran Ave.	Multi-Family	2	0	1,035	10,350	30	50	0	0	2.0%	2.0%	66.0	64.4
Strathmore Pl.													
west of Gayley Ave.	Multi-Family	2	0	387	3,870	30	45	0	0	2.0%	2.0%	62.2	60.6
Levering Avenue													
Montana Ave. to Veteran Ave.	Multi-Family	2	0	380	3,800	30	75	0	0	2.0%	2.0%	59.9	58.3
Veteran Ave. to Le Conte Ave.	Multi-Family	2	0	376	3,760	30	75	0	0	2.0%	2.0%	59.8	58.2
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	2,323	23,230	30	75	0	0	2.0%	2.0%	67.8	66.1
Veteran Ave.													
Sunset Blvd. to Gayley Ave.	Single and Multi-Family	2	0	1,275	12,750	35	75	0.5	0	2.0%	2.0%	65.0	63.0
Gayley Ave. to Levering Ave.	Multi-Family	2	0	946	9,460	35	75	0.5	0	2.0%	2.0%	63.7	61.7
Levering Ave. to Wilshire Blvd.	Multi-Family	4	0	2,505	25,050	35	200	0.5	0	2.0%	2.0%	61.5	59.6
Wilshire Blvd. to Ohio Ave.	Multi-Family	2	0	1,768	17,680	30	50	0	0	2.0%	2.0%	68.4	66.7
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	956	9,560	30	50	0	0	2.0%	2.0%	65.7	64.0
Montana Avenue													
Veteran Ave. to Levering Ave.	Multi-Family	2	0	1,275	12,750	30	50	0.5	0	2.0%	2.0%	66.9	65.3
Levering Ave. to Sepulveda Ave.	Single Family	2	0	1,502	15,020	35	75	0.5	0	2.0%	2.0%	65.7	63.8
west of Sepulveda Blvd.	Single Family	2	0	686	6,860	35	75	0	0	2.0%	2.0%	63.2	61.3
Sepulveda Avenue													
Ovada Pl. to Sunset Blvd	Single Family	6	0	3,127	31,270	40	50	0.5	0	2.0%	2.0%	74.2	72.1
Sunset Blvd. to Montana Ave.	Mulit-Family	4	0	2,531	25,310	40	200	0.5	0	2.0%	2.0%	62.8	60.8
Wilshire Blvd. to Ohio Ave.	Mulit-Family	4	14	1,966	19,660	40	50	0	0	2.0%	2.0%	71.4	69.3
Sawtelle Blvd.													
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	794	7,940	30	45	0.5	0	2.0%	2.0%	65.6	63.9
south of Santa Monica Blvd.	Multi-Family	2	0	1,013	10,130	30	45	0.5	0	2.0%	2.0%	66.6	65.0
Weyburn Avenue													
Glendon Ave. to Westwood Blvd.	Multi-Family	2	0	481	4,810	30	50	0	0	2.0%	2.0%	62.7	61.1

Westwood Blvd. to Gayley Ave.	Multi-Family	2	0	806	8,060	30	50	0	0	2.0%	2.0%	64.9	63.3
Lindbrook Avenue													
Westwood Blvd. to Gayley Ave.	Multi-Family	4	0	619	6,190	30	40	0	0	2.0%	2.0%	65.2	63.6
Wyton Dr.													
east of Hilgard Ave.	Single Family	2	0	225	2,250	30	75	0.5	0	2.0%	2.0%	56.7	55.1
Westholme Ave.													
east of Hilgard Ave.	Single Family	2	0	364	3,640	30	75	0.5	0	2.0%	2.0%	58.8	57.2
Manning Ave.													
east of Hilgard Ave.	Single Family	2	0	187	1,870	30	75	0.5	0	2.0%	2.0%	55.9	54.3
Beverly Glen Boulevard													
Wilshire Blvd. to Comstock Ave.	Single Family	2	0	1,715	17,150	30	100	0	0	2.0%	2.0%	65.2	63.5
Comstock Ave. to Sunset Blvd.	Single Family	2	0	1,485	14,850	30	100	0	-10	2.0%	2.0%	54.6	52.9
Sunset Blvd. to Greendale Dr.	Single Family	2	0	1,859	18,590	30	25	0.5	0	2.0%	2.0%	73.2	71.6
Greendale to Mulholland Dr.	Single Family	2	0	2,040	20,400	30	25	0.5	0	2.0%	2.0%	73.6	72.0
Ohio Avenue													
Westwood Blvd. to Veteran Ave.	Multi-Family	2	0	1,680	16,800	30	35	0	0	2.0%	2.0%	69.7	68.1
Veteran Ave. to Sepulveda Ave.	Multi-Family	2	0	2,049	20,490	30	35	0	0	2.0%	2.0%	70.6	68.9
Sepulveda Ave. to Beloit Ave.	Multi-Family	2	0	2,001	20,010	30	25	0.5	0	2.0%	2.0%	73.5	71.9
Beloit Ave. to Sawtelle Blvd.	Multi-Family	2	0	1,920	19,200	30	40	0.5	0	2.0%	2.0%	70.2	68.5
west of Sawtelle Blvd.	Multi-Family	2	0	1,809	18,090	30	40	0.5	0	2.0%	2.0%	69.9	68.3
Bellagio Road													
Chalon Rd. to Sunset Blvd.	Single Family	2	0	694	6,940	25	50	0.5	0	2.0%	2.0%	62.9	61.4
Bel-Air Rd.													
north of Sunset Blvd.	Single Family	2	0	442	4,420	30	75	0.5	0	2.0%	2.0%	59.6	58.0

Analysis Condition Roadway Name Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Heavy Trucks	Peak Hour dB(A) Leq	24-Hour dB(A) CNEL
Existing Traffic Volumes (Summer Session)													
Wilshire Boulevard													
Glendon Ave. to Malcolm Ave.	Multi-Family	6	14	4,260	42,600	30	150	0	0	2.0%	2.0%	67.5	65.9
Malcolm Ave. to Westholme Ave.	Multi-Family	6	14	4,339	43,390	35	150	0	0	2.0%	2.0%	68.3	66.4
Westholme Ave. to Warner Ave.	Multi-Family	6	14	4,469	44,690	35	150	0	0	2.0%	2.0%	68.4	66.5
Westholme Ave. to Warner Ave.	Church	6	14	4,469	44,690	35	100	0.5	0	2.0%	2.0%	69.0	67.1
Warner Ave. to Beverly Glen Ave.	Multi-Family	6	14	4,480	44,800	35	100	0	0	2.0%	2.0%	70.4	68.5
Warner Ave. to Beverly Glen Ave.	Church	6	14	4,480	44,800	35	80	0.5	0	2.0%	2.0%	70.8	68.8
east of Beverly Glen Blvd.	Multi-Family	6	14	4,117	41,170	35	80	0	0	2.0%	2.0%	71.2	69.3
Sunset Boulevard													
west of Church St.	Single Family	4	14	4,781	47,810	35	100	0.5	0	2.0%	2.0%	69.0	67.1
Church St. to Sepulveda Blvd.	Single Family	4	14	3,133	31,330	35	100	0.5	0	2.0%	2.0%	67.2	65.3
Sepulveda Blvd. to Veteran Ave.	Single Family	4	14	3,736	37,360	35	100	0.5	0	2.0%	2.0%	67.9	66.0
Veteran Ave. to Bellagio Rd.	Single Family	4	14	3,602	36,020	35	100	0.5	0	2.0%	2.0%	67.8	65.9
Bellagio Rd. to Westwood Blvd.	Single Family	4	14	3,136	31,360	35	100	0.5	-8	2.0%	2.0%	59.2	57.3
Westwood Blvd. to Stone Cyn.	Single Family	4	14	3,070	30,700	35	75	0.5	0	2.0%	2.0%	69.1	67.2
Westwood Blvd. to Stone Cyn.	School	4	14	3,070	30,700	35	100	0.5	0	2.0%	2.0%	67.1	65.2
Westwood Blvd. to Stone Cyn.	School	4	14	3,070	30,700	35	75	0.5	0	2.0%	2.0%	69.1	67.2
Stone Cyn. To Copa De Oro Rd.	Single Family	4	14	2,907	29,070	35	75	0.5	0	2.0%	2.0%	68.9	67.0
Copa De Oro Rd. to Bel-Air Rd.	Single Family	4	14	3,202	32,020	35	80	0.5	0	2.0%	2.0%	68.9	66.9
Bel-Air Rd. to Beverly Glen Blvd.	Single Family	4	14	3,967	39,670	35	80	0.5	0	2.0%	2.0%	69.8	67.9
east of Beverly Glen Blvd.	Single Family	4	14	2,690	26,900	35	80	0.5	0	2.0%	2.0%	68.1	66.2
Hilgard Avenue													
Sunset Blvd. to Wyton Dr.	Single Family	4	0	1,293	12,930	30	75	0.5	0	2.0%	2.0%	64.5	62.8
Wyton Dr. to Westholme Ave.	Multi-Family	4	14	1,398	13,980	30	75	0.5	0	2.0%	2.0%	65.0	63.4
Westholme Ave. to Manning Ave.	Church	4	14	1,449	14,490	30	50	0.5	0	2.0%	2.0%	68.4	66.7
Westholme Ave. to Manning Ave.	Multi-Family	4	14	1,449	14,490	30	75	0.5	0	2.0%	2.0%	65.2	63.5
Manning to Le Conte Ave.	Multi-Family	4	0	1,453	14,530	30	50	0	0	2.0%	2.0%	67.8	66.1
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	1,092	10,920	30	50	0	0	2.0%	2.0%	66.3	64.6
Le Conte Ave. to Weyburn Ave.	Church	2	0	1,092	10,920	30	50	0.5	0	2.0%	2.0%	66.2	64.6
Weyburn Ave. to Lindbrook Ave.	Multi-Family	2	0	988	9,880	30	50	0	0	2.0%	2.0%	65.8	64.2
Le Conte Avenue													
east of Hilgard Ave.	Multi-Family	2	0	285	2,850	30	40	0.5	0	2.0%	2.0%	61.9	60.2
Gayley Avenue													
Weyburn Ave. to Le Conte Ave.	Multi-Family	2	14	2,609	26,090	35	75	0	0	2.0%	2.0%	69.0	67.1
Le Conte Ave. to Strathmore Pl.	Multi-Family	2	0	1,612	16,120	30	50	0	0	2.0%	2.0%	67.9	66.3
Strathmore Pl. to Veteran Ave.	Multi-Family	2	0	1,168	11,680	30	50	0	0	2.0%	2.0%	66.5	64.9
Strathmore Pl.													
west of Gayley Ave.	Multi-Family	2	0	236	2,360	30	45	0	0	2.0%	2.0%	60.1	58.4
Levering Avenue													
Montana Ave. to Veteran Ave.	Multi-Family	2	0	379	3,790	30	75	0	0	2.0%	2.0%	59.9	58.2
Veteran Ave. to Le Conte Ave.	Multi-Family	2	0	362	3,620	30	75	0	0	2.0%	2.0%	59.7	58.0
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	2,609	26,090	30	75	0	0	2.0%	2.0%	68.3	66.6
Veteran Ave.													
Sunset Blvd. to Gayley Ave.	Single and Multi-Family	2	0	1,491	14,910	35	75	0.5	0	2.0%	2.0%	65.6	63.7
Gayley Ave. to Levering Ave.	Multi-Family	2	0	1,078	10,780	35	75	0.5	0	2.0%	2.0%	64.2	62.3
Levering Ave. to Wilshire Blvd.	Multi-Family	4	0	2,430	24,300	35	200	0.5	0	2.0%	2.0%	61.4	59.5
Wilshire Blvd. to Ohio Ave.	Multi-Family	2	0	1,780	17,800	30	50	0	0	2.0%	2.0%	68.4	66.7
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	770	7,700	30	50	0	0	2.0%	2.0%	64.7	63.1
Montana Avenue													
Veteran Ave. to Levering Ave.	Multi-Family	2	0	961	9,610	30	50	0.5	0	2.0%	2.0%	65.7	64.0
Levering Ave. to Sepulveda Ave.	Single Family	2	0	1,188	11,880	35	75	0.5	0	2.0%	2.0%	64.7	62.7
west of Sepulveda Blvd.	Single Family	2	0	642	6,420	35	75	0	0	2.0%	2.0%	62.9	61.0
Sepulveda Avenue													
Ovada Pl. to Sunset Blvd	Single Family	6	0	3,335	33,350	40	50	0.5	0	2.0%	2.0%	74.5	72.4

Sunset Blvd. to Montana Ave.	Mulit-Family	4	0	2,697	26,970	40	200	0.5	0	2.0%	2.0%	63.1	61.0
Wilshire Blvd. to Ohio Ave.	Mulit-Family	4	14	2,076	20,760	40	50	0	0	2.0%	2.0%	71.6	69.6
Sawtelle Blvd.													
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	826	8,260	30	45	0.5	0	2.0%	2.0%	65.7	64.1
south of Santa Monica Blvd.	Multi-Family	2	0	1,130	11,300	30	45	0.5	0	2.0%	2.0%	67.1	65.4
Weyburn Avenue													
Glendon Ave. to Westwood Blvd.	Multi-Family	2	0	743	7,430	30	50	0	0	2.0%	2.0%	64.6	62.9
Westwood Blvd. to Gayley Ave.	Multi-Family	2	0	1,347	13,470	30	50	0	0	2.0%	2.0%	67.2	65.5
Lindbrook Avenue													
Westwood Blvd. to Gayley Ave.	Multi-Family	4	0	539	5,390	30	40	0	0	2.0%	2.0%	64.6	63.0
Wyton Dr.													
east of Hilgard Ave.	Single Family	2	0	216	2,160	30	75	0.5	0	2.0%	2.0%	56.5	54.9
Westholme Ave.													
east of Hilgard Ave.	Single Family	2	0	315	3,150	30	75	0.5	0	2.0%	2.0%	58.2	56.5
Manning Ave.													
east of Hilgard Ave.	Single Family	2	0	97	970	30	75	0.5	0	2.0%	2.0%	53.1	51.4
Beverly Glen Boulevard													
Wilshire Blvd. to Comstock Ave.	Single Family	2	0	1,593	15,930	30	100	0	0	2.0%	2.0%	64.9	63.2
Comstock Ave. to Sunset Blvd.	Single Family	2	0	1,580	15,800	30	100	0	-10	2.0%	2.0%	54.8	53.2
Sunset Blvd. to Greendale Dr.	Single Family	2	0	1,809	18,090	30	25	0.5	0	2.0%	2.0%	73.1	71.5
Greendale to Mulholland Dr.	Single Family	2	0	1,667	16,670	30	25	0.5	0	2.0%	2.0%	72.7	71.1
Ohio Avenue													
Westwood Blvd. to Veteran Ave.	Multi-Family	2	0	1,403	14,030	30	35	0	0	2.0%	2.0%	68.9	67.3
Veteran Ave. to Sepulveda Ave.	Multi-Family	2	0	1,766	17,660	30	35	0	0	2.0%	2.0%	69.9	68.3
Sepulveda Ave. to Beloit Ave.	Multi-Family	2	0	1,847	18,470	30	25	0.5	0	2.0%	2.0%	73.2	71.5
Beloit Ave. to Sawtelle Blvd.	Multi-Family	2	0	1,940	19,400	30	40	0.5	0	2.0%	2.0%	70.2	68.6
west of Sawtelle Blvd.	Multi-Family	2	0	1,861	18,610	30	40	0.5	0	2.0%	2.0%	70.0	68.4
Bellagio Road													
Chalon Rd. to Sunset Blvd.	Single Family	2	0	845	8,450	25	50	0.5	0	2.0%	2.0%	63.7	62.3
Bel-Air Rd.													
north of Sunset Blvd.	Single Family	2	0	448	4,480	30	75	0.5	0	2.0%	2.0%	59.7	58.1

Analysis Condition Roadway Name Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour dB(A) L_{eq}	24-Hour dB(A) CNEL
Future Without Project Traffic Volumes (Regular Session)													
Wilshire Boulevard													
Glendon Ave. to Malcolm Ave.	Multi-Family	6	14	4,914	49,140	30	150	0	0	2.0%	2.0%	68.1	66.5
Malcolm Ave. to Westholme Ave.	Multi-Family	6	14	5,289	52,890	35	150	0	0	2.0%	2.0%	69.2	67.2
Westholme Ave. to Warner Ave.	Multi-Family	6	14	5,371	53,710	35	150	0	0	2.0%	2.0%	69.2	67.3
Westholme Ave. to Warner Ave.	Church	6	14	5,371	53,710	35	100	0.5	0	2.0%	2.0%	69.8	67.9
Warner Ave. to Beverly Glen Ave.	Multi-Family	6	14	5,247	52,470	35	100	0	0	2.0%	2.0%	71.1	69.1
Warner Ave. to Beverly Glen Ave.	Church	6	14	5,247	52,470	35	80	0.5	0	2.0%	2.0%	71.4	69.5
east of Beverly Glen Blvd.	Multi-Family	6	14	4,866	48,660	35	80	0	0	2.0%	2.0%	71.9	70.0
Sunset Boulevard													
west of Church St.	Single Family	4	14	4,459	44,590	35	100	0.5	0	2.0%	2.0%	68.7	66.8
Church St. to Sepulveda Blvd.	Single Family	4	14	3,877	38,770	35	100	0.5	0	2.0%	2.0%	68.1	66.2
Sepulveda Blvd. to Veteran Ave.	Single Family	4	14	3,775	37,750	35	100	0.5	0	2.0%	2.0%	68.0	66.1
Veteran Ave. to Bellagio Rd.	Single Family	4	14	3,859	38,590	35	100	0.5	0	2.0%	2.0%	68.1	66.2
Bellagio Rd. to Westwood Blvd.	Single Family	4	14	3,552	35,520	35	100	0.5	-8	2.0%	2.0%	59.7	57.8
Westwood Blvd. to Stone Cyn.	Single Family	4	14	3,556	35,560	35	75	0.5	0	2.0%	2.0%	69.8	67.9
Westwood Blvd. to Stone Cyn.	School	4	14	3,556	35,560	35	100	0.5	0	2.0%	2.0%	67.7	65.8
Westwood Blvd. to Stone Cyn.	School	4	14	3,556	35,560	35	75	0.5	0	2.0%	2.0%	69.8	67.9
Stone Cyn. To Copa De Oro Rd.	Single Family	4	14	3,185	31,850	35	75	0.5	0	2.0%	2.0%	69.3	67.4
Copa De Oro Rd. to Bel-Air Rd.	Single Family	4	14	3,470	34,700	35	80	0.5	0	2.0%	2.0%	69.2	67.3
Bel-Air Rd. to Beverly Glen Blvd.	Single Family	4	14	4,536	45,360	35	80	0.5	0	2.0%	2.0%	70.4	68.4
east of Beverly Glen Blvd.	Single Family	4	14	2,882	28,820	35	80	0.5	0	2.0%	2.0%	68.4	66.5
Hilgard Avenue													
Sunset Blvd. to Wyton Dr.	Single Family	4	0	1,476	14,760	30	75	0.5	0	2.0%	2.0%	65.1	63.4
Wyton Dr. to Westholme Ave.	Multi-Family	4	14	1,631	16,310	30	75	0.5	0	2.0%	2.0%	65.7	64.0
Westholme Ave. to Manning Ave.	Church	4	14	2,014	20,140	30	50	0.5	0	2.0%	2.0%	69.8	68.2
Westholme Ave. to Manning Ave.	Multi-Family	4	14	2,014	20,140	30	75	0.5	0	2.0%	2.0%	66.6	65.0
Manning to Le Conte Ave.	Multi-Family	4	0	2,045	20,450	30	50	0	0	2.0%	2.0%	69.3	67.6
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	1,465	14,650	30	50	0	0	2.0%	2.0%	67.5	65.9
Le Conte Ave. to Weyburn Ave.	Church	2	0	1,465	14,650	30	50	0.5	0	2.0%	2.0%	67.5	65.9
Weyburn Ave. to Lindbrook Ave.	Multi-Family	2	0	1,336	13,360	30	50	0	0	2.0%	2.0%	67.1	65.5
Le Conte Avenue													
east of Hilgard Ave.	Multi-Family	2	0	417	4,170	30	40	0.5	0	2.0%	2.0%	63.5	61.9
Gayley Avenue													
Weyburn Ave. to Le Conte Ave.	Multi-Family	2	14	1,788	17,880	35	75	0	0	2.0%	2.0%	67.4	65.5
Le Conte Ave. to Strathmore Pl.	Multi-Family	2	0	1,789	17,890	30	50	0	0	2.0%	2.0%	68.4	66.8
Strathmore Pl. to Veteran Ave.	Multi-Family	2	0	1,164	11,640	30	50	0	0	2.0%	2.0%	66.5	64.9
Strathmore Pl.													
west of Gayley Ave.	Multi-Family	2	0	434	4,340	30	45	0	0	2.0%	2.0%	62.7	61.1
Levering Avenue													
Montana Ave. to Veteran Ave.	Multi-Family	2	0	444	4,440	30	75	0	0	2.0%	2.0%	60.6	58.9
Veteran Ave. to Le Conte Ave.	Multi-Family	2	0	432	4,320	30	75	0	0	2.0%	2.0%	60.5	58.8
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	2,443	24,430	30	75	0	0	2.0%	2.0%	68.0	66.3
Veteran Ave.													
Sunset Blvd. to Gayley Ave.	Single and Multi-Family	2	0	1,216	12,160	35	75	0.5	0	2.0%	2.0%	64.8	62.8
Gayley Ave. to Levering Ave.	Multi-Family	2	0	1,089	10,890	35	75	0.5	0	2.0%	2.0%	64.3	62.4
Levering Ave. to Wilshire Blvd.	Multi-Family	4	0	3,139	31,390	35	200	0.5	0	2.0%	2.0%	62.5	60.6
Wilshire Blvd. to Ohio Ave.	Multi-Family	2	0	1,821	18,210	30	50	0	0	2.0%	2.0%	68.5	66.8

Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	1,073	10,730	30	50	0	0	2.0%	2.0%	66.2	64.5
Montana Avenue													
Veteran Ave. to Levering Ave.	Multi-Family	2	0	1,379	13,790	30	50	0.5	0	2.0%	2.0%	67.3	65.6
Levering Ave. to Sepulveda Ave.	Single Family	2	0	1,518	15,180	35	75	0.5	0	2.0%	2.0%	65.7	63.8
west of Sepulveda Blvd.	Single Family	2	0	836	8,360	35	75	0	0	2.0%	2.0%	64.0	62.1
Sepulveda Avenue													
Ovada Pl. to Sunset Blvd	Single Family	6	0	3,811	38,110	40	50	0.5	0	2.0%	2.0%	75.0	73.0
Sunset Blvd. to Montana Ave.	Mulit-Family	4	0	3,098	30,980	40	200	0.5	0	2.0%	2.0%	63.7	61.6
Wilshire Blvd. to Ohio Ave.	Mulit-Family	4	14	2,116	21,160	40	50	0	0	2.0%	2.0%	71.7	69.7
Sawtelle Blvd.													
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	834	8,340	30	45	0.5	0	2.0%	2.0%	65.8	64.1
south of Santa Monica Blvd.	Multi-Family	2	0	1,060	10,600	30	45	0.5	0	2.0%	2.0%	66.8	65.2
Weyburn Avenue													
Glendon Ave. to Westwood Blvd.	Multi-Family	2	0	586	5,860	30	50	0	0	2.0%	2.0%	63.6	61.9
Westwood Blvd. to Gayley Ave.	Multi-Family	2	0	774	7,740	30	50	0	0	2.0%	2.0%	64.8	63.1
Lindbrook Avenue													
Westwood Blvd. to Gayley Ave.	Multi-Family	4	0	673	6,730	30	40	0	0	2.0%	2.0%	65.6	63.9
Wyton Dr.													
east of Hilgard Ave.	Single Family	2	0	271	2,710	30	75	0.5	0	2.0%	2.0%	57.5	55.9
Westholme Ave.													
east of Hilgard Ave.	Single Family	2	0	422	4,220	30	75	0.5	0	2.0%	2.0%	59.4	57.8
Manning Ave.													
east of Hilgard Ave.	Single Family	2	0	201	2,010	30	75	0.5	0	2.0%	2.0%	56.2	54.6
Beverly Glen Boulevard													
Wilshire Blvd. to Comstock Ave.	Single Family	2	0	1,997	19,970	30	100	0	0	2.0%	2.0%	65.8	64.2
Comstock Ave. to Sunset Blvd.	Single Family	2	0	1,743	17,430	30	100	0	-10	2.0%	2.0%	55.3	53.6
Sunset Blvd. to Greendale Dr.	Single Family	2	0	2,096	20,960	30	25	0.5	0	2.0%	2.0%	73.7	72.1
Greendale to to Mulholland Dr.	Single Family	2	0	1,753	17,530	30	25	0.5	0	2.0%	2.0%	73.0	71.3
Ohio Avenue													
Westwood Blvd. to Veteran Ave.	Multi-Family	2	0	1,808	18,080	30	35	0	0	2.0%	2.0%	70.0	68.4
Veteran Ave. to Sepulveda Ave.	Multi-Family	2	0	2,205	22,050	30	35	0	0	2.0%	2.0%	70.9	69.3
Sepulveda Ave. to Beloit Ave.	Multi-Family	2	0	2,164	21,640	30	25	0.5	0	2.0%	2.0%	73.9	72.2
Beloit Ave. to Sawtelle Blvd.	Multi-Family	2	0	2,019	20,190	30	40	0.5	0	2.0%	2.0%	70.4	68.8
west of Sawtelle Blvd.	Multi-Family	2	0	1,902	19,020	30	40	0.5	0	2.0%	2.0%	70.1	68.5
Bellagio Road													
Chalon Rd. to Sunset Blvd.	Single Family	2	0	766	7,660	25	50	0.5	0	2.0%	2.0%	63.3	61.8
Bel-Air Rd.													
north of Sunset Blvd.	Single Family	2	0	475	4,750	30	75	0.5	0	2.0%	2.0%	60.0	58.3

Analysis Condition Roadway Name Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour dB(A) L_{eq}	24-Hour dB(A) CNEL
Future Without Project Traffic Volumes (Summer Session)													
Wilshire Boulevard													
Glendon Ave. to Malcolm Ave.	Multi-Family	6	14	4,452	44,520	30	150	0	0	2.0%	2.0%	67.7	66.1
Malcolm Ave. to Westholme Ave.	Multi-Family	6	14	4,999	49,990	35	150	0	0	2.0%	2.0%	68.9	67.0
Westholme Ave. to Warner Ave.	Multi-Family	6	14	5,371	53,710	35	150	0	0	2.0%	2.0%	69.2	67.3
Westholme Ave. to Warner Ave.	Church	6	14	5,371	53,710	35	100	0.5	0	2.0%	2.0%	69.8	67.9
Warner Ave. to Beverly Glen Ave.	Multi-Family	6	14	5,286	52,860	35	100	0	0	2.0%	2.0%	71.1	69.2
Warner Ave. to Beverly Glen Ave.	Church	6	14	5,286	52,860	35	80	0.5	0	2.0%	2.0%	71.5	69.6
east of Beverly Glen Blvd.	Multi-Family	6	14	5,610	56,100	35	80	0	0	2.0%	2.0%	72.5	70.6
Sunset Boulevard													
west of Church St.	Single Family	4	14	5,111	51,110	35	100	0.5	0	2.0%	2.0%	69.3	67.4
Church St. to Sepulveda Blvd.	Single Family	4	14	4,073	40,730	35	100	0.5	0	2.0%	2.0%	68.3	66.4
Sepulveda Blvd. to Veteran Ave.	Single Family	4	14	3,634	36,340	35	100	0.5	0	2.0%	2.0%	67.8	65.9
Veteran Ave. to Bellagio Rd.	Single Family	4	14	5,524	55,240	35	100	0.5	0	2.0%	2.0%	69.6	67.7
Bellagio Rd. to Westwood Blvd.	Single Family	4	14	3,346	33,460	35	100	0.5	-8	2.0%	2.0%	59.5	57.5
Westwood Blvd. to Stone Cyn.	Single Family	4	14	3,474	34,740	35	75	0.5	0	2.0%	2.0%	69.7	67.8
Westwood Blvd. to Stone Cyn.	School	4	14	3,474	34,740	35	100	0.5	0	2.0%	2.0%	67.6	65.7
Westwood Blvd. to Stone Cyn.	School	4	14	3,474	34,740	35	75	0.5	0	2.0%	2.0%	69.7	67.8
Stone Cyn. To Copa De Oro Rd.	Single Family	4	14	3,160	31,600	35	75	0.5	0	2.0%	2.0%	69.3	67.3
Copa De Oro Rd. to Bel-Air Rd.	Single Family	4	14	3,449	34,490	35	80	0.5	0	2.0%	2.0%	69.2	67.3
Bel-Air Rd. to Beverly Glen Blvd.	Single Family	4	14	4,610	46,100	35	80	0.5	0	2.0%	2.0%	70.4	68.5
east of Beverly Glen Blvd.	Single Family	4	14	3,033	30,330	35	80	0.5	0	2.0%	2.0%	68.6	66.7
Hilgard Avenue													
Sunset Blvd. to Wyton Dr.	Single Family	4	0	1,406	14,060	30	75	0.5	0	2.0%	2.0%	64.8	63.2
Wyton Dr. to Westholme Ave.	Multi-Family	4	14	1,682	16,820	30	75	0.5	0	2.0%	2.0%	65.8	64.2
Westholme Ave. to Manning Ave.	Church	4	14	1,543	15,430	30	50	0.5	0	2.0%	2.0%	68.6	67.0
Westholme Ave. to Manning Ave.	Multi-Family	4	14	1,543	15,430	30	75	0.5	0	2.0%	2.0%	65.4	63.8
Manning to Le Conte Ave.	Multi-Family	4	0	1,553	15,530	30	50	0	0	2.0%	2.0%	68.1	66.4
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	1,300	13,000	30	50	0	0	2.0%	2.0%	67.0	65.4
Le Conte Ave. to Weyburn Ave.	Church	2	0	1,300	13,000	30	50	0.5	0	2.0%	2.0%	67.0	65.4
Weyburn Ave. to Lindbrook Ave.	Multi-Family	2	0	1,179	11,790	30	50	0	0	2.0%	2.0%	66.6	65.0
Le Conte Avenue													
east of Hilgard Ave.	Multi-Family	2	0	324	3,240	30	40	0.5	0	2.0%	2.0%	62.4	60.8
Gayley Avenue													
Weyburn Ave. to Le Conte Ave.	Multi-Family	2	14	1,748	17,480	35	75	0	0	2.0%	2.0%	67.3	65.4
Le Conte Ave. to Strathmore Pl.	Multi-Family	2	0	1,704	17,040	30	50	0	0	2.0%	2.0%	68.2	66.6
Strathmore Pl. to Veteran Ave.	Multi-Family	2	0	1,262	12,620	30	50	0	0	2.0%	2.0%	66.9	65.3
Strathmore Pl.													
west of Gayley Ave.	Multi-Family	2	0	264	2,640	30	45	0	0	2.0%	2.0%	60.6	58.9
Levering Avenue													
Montana Ave. to Veteran Ave.	Multi-Family	2	0	434	4,340	30	75	0	0	2.0%	2.0%	60.5	58.8

Veteran Ave. to Le Conte Ave.	Multi-Family	2	0	403	4,030	30	75	0	0	2.0%	2.0%	60.2	58.5
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	2,743	27,430	30	75	0	0	2.0%	2.0%	68.5	66.8
Veteran Ave.													
Sunset Blvd. to Gayley Ave.	Single and Multi-Family	2	0	1,869	18,690	35	75	0.5	0	2.0%	2.0%	66.6	64.7
Gayley Ave. to Levering Ave.	Multi-Family	2	0	1,219	12,190	35	75	0.5	0	2.0%	2.0%	64.8	62.8
Levering Ave. to Wilshire Blvd.	Multi-Family	4	0	3,280	32,800	35	200	0.5	0	2.0%	2.0%	62.7	60.8
Wilshire Blvd. to Ohio Ave.	Multi-Family	2	0	2,083	20,830	30	50	0	0	2.0%	2.0%	69.1	67.4
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	883	8,830	30	50	0	0	2.0%	2.0%	65.3	63.7
Montana Avenue													
Veteran Ave. to Levering Ave.	Multi-Family	2	0	1,088	10,880	30	50	0.5	0	2.0%	2.0%	66.2	64.6
Levering Ave. to Sepulveda Ave.	Single Family	2	0	1,458	14,580	35	75	0.5	0	2.0%	2.0%	65.5	63.6
west of Sepulveda Blvd.	Single Family	2	0	782	7,820	35	75	0	0	2.0%	2.0%	63.7	61.8
Sepulveda Avenue													
Ovada Pl. to Sunset Blvd	Single Family	6	0	4,066	40,660	40	50	0.5	0	2.0%	2.0%	75.3	73.3
Sunset Blvd. to Montana Ave.	Mulit-Family	4	0	3,288	32,880	40	200	0.5	0	2.0%	2.0%	63.9	61.9
Wilshire Blvd. to Ohio Ave.	Mulit-Family	4	14	2,246	22,460	40	50	0	0	2.0%	2.0%	72.0	69.9
Sawtelle Blvd.													
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	868	8,680	30	45	0.5	0	2.0%	2.0%	65.9	64.3
south of Santa Monica Blvd.	Multi-Family	2	0	1,188	11,880	30	45	0.5	0	2.0%	2.0%	67.3	65.7
Weyburn Avenue													
Glendon Ave. to Westwood Blvd.	Multi-Family	2	0	629	6,290	30	50	0	0	2.0%	2.0%	63.9	62.2
Westwood Blvd. to Gayley Ave.	Multi-Family	2	0	707	7,070	30	50	0	0	2.0%	2.0%	64.4	62.7
Lindbrook Avenue													
Westwood Blvd. to Gayley Ave.	Multi-Family	4	0	588	5,880	30	40	0	0	2.0%	2.0%	65.0	63.4
Wyton Dr.													
east of Hilgard Ave.	Single Family	2	0	260	2,600	30	75	0.5	0	2.0%	2.0%	57.3	55.7
Westholme Ave.													
east of Hilgard Ave.	Single Family	2	0	341	3,410	30	75	0.5	0	2.0%	2.0%	58.5	56.9
Manning Ave.													
east of Hilgard Ave.	Single Family	2	0	100	1,000	30	75	0.5	0	2.0%	2.0%	53.2	51.6
Beverly Glen Boulevard													
Wilshire Blvd. to Comstock Ave.	Single Family	2	0	1,819	18,190	30	100	0	0	2.0%	2.0%	65.4	63.8
Comstock Ave. to Sunset Blvd.	Single Family	2	0	1,672	16,720	30	100	0	-10	2.0%	2.0%	55.1	53.4
Sunset Blvd. to Greendale Dr.	Single Family	2	0	2,039	20,390	30	25	0.5	0	2.0%	2.0%	73.6	72.0
Greendale to Mulholland Dr.	Single Family	2	0	1,753	17,530	30	25	0.5	0	2.0%	2.0%	73.0	71.3
Ohio Avenue													
Westwood Blvd. to Veteran Ave.	Multi-Family	2	0	1,511	15,110	30	35	0	0	2.0%	2.0%	69.3	67.6
Veteran Ave. to Sepulveda Ave.	Multi-Family	2	0	1,911	19,110	30	35	0	0	2.0%	2.0%	70.3	68.6
Sepulveda Ave. to Beloit Ave.	Multi-Family	2	0	1,999	19,990	30	25	0.5	0	2.0%	2.0%	73.5	71.9
Beloit Ave. to Sawtelle Blvd.	Multi-Family	2	0	2,040	20,400	30	40	0.5	0	2.0%	2.0%	70.4	68.8
west of Sawtelle Blvd.	Multi-Family	2	0	1,955	19,550	30	40	0.5	0	2.0%	2.0%	70.2	68.6
Bellagio Road													
Chalon Rd. to Sunset Blvd.	Single Family	2	0	907	9,070	25	50	0.5	0	2.0%	2.0%	64.0	62.6
Bel-Air Rd.													
north of Sunset Blvd.	Single Family	2	0	483	4,830	30	75	0.5	0	2.0%	2.0%	60.0	58.4

Analysis Condition Roadway Name Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour dB(A) L_{eq}	24-Hour dB(A) CNEL
Future Plus Project Traffic Volumes (Regular Session)													
Wilshire Boulevard													
Glendon Ave. to Malcolm Ave.	Multi-Family	6	14	4,916	49,160	30	150	0	0	2.0%	2.0%	68.1	66.5
Malcolm Ave. to Westholme Ave.	Multi-Family	6	14	5,292	52,920	35	150	0	0	2.0%	2.0%	69.2	67.2
Westholme Ave. to Warner Ave.	Multi-Family	6	14	5,394	53,940	35	150	0	0	2.0%	2.0%	69.2	67.3
Westholme Ave. to Warner Ave.	Church	6	14	5,394	53,940	35	100	0.5	0	2.0%	2.0%	69.8	67.9
Warner Ave. to Beverly Glen Ave.	Multi-Family	6	14	5,310	53,100	35	100	0	0	2.0%	2.0%	71.1	69.2
Warner Ave. to Beverly Glen Ave.	Church	6	14	5,310	53,100	35	80	0.5	0	2.0%	2.0%	71.5	69.6
east of Beverly Glen	Multi-Family	6	14	4,922	49,220	35	80	0	0	2.0%	2.0%	72.0	70.0
Sunset Boulevard													
west of CHurch St.	Single Family	4	14	4,463	44,630	35	100	0.5	0	2.0%	2.0%	68.7	66.8
Church St. to Sepulveda Blvd.	Single Family	4	14	3,887	38,870	35	100	0.5	0	2.0%	2.0%	68.1	66.2
Sepulveda Blvd. to Veteran Ave.	Single Family	4	14	3,598	35,980	35	100	0.5	0	2.0%	2.0%	67.8	65.9
Veteran Ave. to Bellagio Rd.	Single Family	4	14	3,846	38,460	35	100	0.5	0	2.0%	2.0%	68.1	66.2
Bellagio Rd. to Westwood Blvd.	Single Family	4	14	3,562	35,620	35	100	0.5	-8	2.0%	2.0%	59.7	57.8
Westwood Blvd. to Stone Cyn.	Single Family	4	14	3,375	33,750	35	75	0.5	0	2.0%	2.0%	69.5	67.6
Westwood Blvd. to Stone Cyn.	School	4	14	3,375	33,750	35	100	0.5	0	2.0%	2.0%	67.5	65.6
Westwood Blvd. to Stone Cyn.	School	4	14	3,375	33,750	35	75	0.5	0	2.0%	2.0%	69.5	67.6
Stone Cyn. To Copa De Oro Rd.	Single Family	4	14	3,193	31,930	35	75	0.5	0	2.0%	2.0%	69.3	67.4
Copa De Oro Rd. to Bel-Air Rd.	Single Family	4	14	3,476	34,760	35	80	0.5	0	2.0%	2.0%	69.2	67.3
Bel-Air Rd. to Beverly Glen Blvd.	Single Family	4	14	4,640	46,400	35	80	0.5	0	2.0%	2.0%	70.5	68.5
east of Beverly Glen	Single Family	4	14	2,885	28,850	35	80	0.5	0	2.0%	2.0%	68.4	66.5
Hilgard Avenue													
Sunset Blvd. to Wyton Dr.	Single Family	4	0	1,484	14,840	30	75	0.5	0	2.0%	2.0%	65.1	63.4
Wyton Dr. to Westholme Ave.	Multi-Family	4	14	1,763	17,630	30	75	0.5	0	2.0%	2.0%	66.0	64.4
Westholme Ave. to Manning Ave.	Church	4	14	2,023	20,230	30	50	0.5	0	2.0%	2.0%	69.8	68.2
Westholme Ave. to Manning Ave.	Multi-Family	4	14	2,023	20,230	30	75	0.5	0	2.0%	2.0%	66.6	65.0
Manning to Le Conte Ave.	Multi-Family	4	0	2,051	20,510	30	50	0	0	2.0%	2.0%	69.3	67.6
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	1,469	14,690	30	50	0	0	2.0%	2.0%	67.5	65.9
Le Conte Ave. to Weyburn Ave.	Church	2	0	1,469	14,690	30	50	0.5	0	2.0%	2.0%	67.5	65.9
Weyburn Ave. to Lindbrook Ave.	Multi-Family	2	0	1,342	13,420	30	50	0	0	2.0%	2.0%	67.2	65.5
Le Conte Avenue													
east of Hilgard Ave.	Multi-Family	2	0	419	4,190	30	40	0.5	0	2.0%	2.0%	63.6	61.9
Gayley Avenue													

Weyburn Ave. to Le Conte Ave.	Multi-Family	2	14	1,796	17,960	35	75	0	0	2.0%	2.0%	67.4	65.5
Le Conte Ave. to Strathmore Pl.	Multi-Family	2	0	1,798	17,980	30	50	0	0	2.0%	2.0%	68.4	66.8
Strathmore Pl. to Veteran Ave.	Multi-Family	2	0	1,171	11,710	30	50	0	0	2.0%	2.0%	66.6	64.9
Strathmore Pl.													
west of Gayley Ave.	Multi-Family	2	0	435	4,350	30	45	0	0	2.0%	2.0%	62.7	61.1
Levering Avenue													
Montana Ave. to Veteran Ave.	Multi-Family	2	0	444	4,440	30	75	0	0	2.0%	2.0%	60.6	58.9
Veteran Ave. to Le Conte Ave.	Multi-Family	2	0	432	4,320	30	75	0	0	2.0%	2.0%	60.5	58.8
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	2,451	24,510	30	75	0	0	2.0%	2.0%	68.0	66.4
Veteran Ave.													
Sunset Blvd. to Gayley Ave.	Single and Multi-Family	2	0	1,222	12,220	35	75	0.5	0	2.0%	2.0%	64.8	62.9
Gayley Ave. to Levering Ave.	Multi-Family	2	0	1,091	10,910	35	75	0.5	0	2.0%	2.0%	64.3	62.4
Levering Ave. to Wilshire Blvd.	Multi-Family	4	0	3,153	31,530	35	200	0.5	0	2.0%	2.0%	62.5	60.6
Wilshire Blvd. to Ohio Ave.	Multi-Family	2	0	1,824	18,240	30	50	0	0	2.0%	2.0%	68.5	66.8
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	1,076	10,760	30	50	0	0	2.0%	2.0%	66.2	64.6
Montana Avenue													
Veteran Ave. to Levering Ave.	Multi-Family	2	0	1,385	13,850	35	75	0.5	0	2.0%	2.0%	65.3	63.4
Levering Ave. to Sepulveda Ave.	Single Family	2	0	1,523	15,230	30	50	0.5	0	2.0%	2.0%	67.7	66.0
west of Sepulveda Blvd	Single Family	2	0	839	8,390	35	75	0	0	2.0%	2.0%	64.0	62.1
Sepulveda Avenue													
Ovada Pl. to Sunset Blvd	Single Family	6	0	3,334	33,340	40	50	0.5	0	2.0%	2.0%	74.5	72.4
Sunset Blvd. to Montana Ave.	Mulit-Family	4	0	3,102	31,020	40	200	0.5	0	2.0%	2.0%	63.7	61.6
Wilshire Blvd. to Ohio Ave.	Mulit-Family	4	14	2,098	20,980	40	50	0	0	2.0%	2.0%	71.7	69.6
Sawtelle Blvd.													
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	855	8,550	30	45	0.5	0	2.0%	2.0%	65.9	64.2
south of Santa Monica Blvd.	Multi-Family	2	0	1,059	10,590	30	45	0.5	0	2.0%	2.0%	66.8	65.2
Weyburn Avenue													
Glendon Ave. to Westwood Blvd.	Multi-Family	2	0	588	5,880	30	50	0	0	2.0%	2.0%	63.6	61.9
Westwood Blvd. to Gayley Ave.	Multi-Family	2	0	776	7,760	30	50	0	0	2.0%	2.0%	64.8	63.1
Lindbrook Avenue													
Westwood Blvd. to Gayley Ave.	Multi-Family	4	0	674	6,740	30	40	0	0	2.0%	2.0%	65.6	64.0
Wyton Dr.													
east of Hilgard Ave.	Single Family	2	0	272	2,720	30	75	0.5	0	2.0%	2.0%	57.5	55.9
Westholme Ave.													
east of Hilgard Ave.	Single Family	2	0	426	4,260	30	75	0.5	0	2.0%	2.0%	59.5	57.8
Manning Ave.													
east of Hilgard Ave.	Single Family	2	0	204	2,040	30	75	0.5	0	2.0%	2.0%	56.3	54.6
Beverly Glen Boulevard													
Wilshire Blvd. to Comstock Ave.	Single Family	2	0	2,000	20,000	30	100	0	0	2.0%	2.0%	65.9	64.2
Comstock Ave. to Sunset Blvd.	Single Family	2	0	1,745	17,450	30	100	0	-10	2.0%	2.0%	55.3	53.6
Sunset Blvd. to Greendale Dr.	Single Family	2	0	2,097	20,970	30	25	0.5	0	2.0%	2.0%	73.7	72.1
Greendale to Mulholland	Single Family	2	0	1,754	17,540	30	25	0.5	0	2.0%	2.0%	73.0	71.3
Ohio Avenue													
Westwood Blvd. to Veteran Ave.	Multi-Family	2	0	1,811	18,110	30	35	0	0	2.0%	2.0%	70.0	68.4
Veteran Ave. to Sepulveda Ave.	Multi-Family	2	0	2,207	22,070	30	35	0	0	2.0%	2.0%	70.9	69.3
Sepulveda Ave. to Beloit Ave.	Multi-Family	2	0	2,166	21,660	30	25	0.5	0	2.0%	2.0%	73.9	72.2
Beloit Ave. to Sawtelle Blvd.	Multi-Family	2	0	2,019	20,190	30	40	0.5	0	2.0%	2.0%	70.4	68.8
west of Sawtelle	Multi-Family	2	0	1,903	19,030	30	40	0.5	0	2.0%	2.0%	70.1	68.5
Bellagio Road													
Chalon Rd. to Sunset Blvd.	Single Family	2	0	767	7,670	25	50	0.5	0	2.0%	2.0%	63.3	61.8
Bel-Air Rd.													
north of Sunset Blvd.	Single Family	2	0	479	4,790	30	75	0.5	0	2.0%	2.0%	60.0	58.4

Analysis Condition Roadway Name Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour dB(A) L_{eq}	24-Hour dB(A) CNEL
Future Plus Project Traffic Volumes (Summer Session)													
Wilshire Boulevard													
Glendon Ave. to Malcolm Ave.	Multi-Family	6	14	4,503	45,030	30	150	0	0	2.0%	2.0%	67.7	66.1
Malcolm Ave. to Westholme Ave.	Multi-Family	6	14	5,030	50,300	35	150	0	0	2.0%	2.0%	68.9	67.0
Westholme Ave. to Warner Ave.	Multi-Family	6	14	5,426	54,260	35	150	0	0	2.0%	2.0%	69.3	67.4
Westholme Ave. to Warner Ave.	Church	6	14	5,426	54,260	35	100	0.5	0	2.0%	2.0%	69.8	67.9
Warner Ave. to Beverly Glen Ave.	Multi-Family	6	14	5,353	53,530	35	100	0	0	2.0%	2.0%	71.2	69.2
Warner Ave. to Beverly Glen Ave.	Church	6	14	5,353	53,530	35	80	0.5	0	2.0%	2.0%	71.5	69.6
east of Beverly Glen Blvd.	Church	6	14	4,725	47,250	35	80	0	0	2.0%	2.0%	71.8	69.9
Sunset Boulevard													
west of Church St.	Single Family	4	14	5,156	51,560	35	100	0.5	0	2.0%	2.0%	69.3	67.4
Church St. to Sepulveda Blvd.	Single Family	4	14	4,092	40,920	35	100	0.5	0	2.0%	2.0%	68.3	66.4
Sepulveda Blvd. to Veteran Ave.	Single Family	4	14	3,792	37,920	35	100	0.5	0	2.0%	2.0%	68.0	66.1
Veteran Ave. to Bellagio Rd.	Single Family	4	14	4,071	40,710	35	100	0.5	0	2.0%	2.0%	68.3	66.4
Bellagio Rd. to Westwood Blvd.	Single Family	4	14	3,472	34,720	35	100	0.5	-8	2.0%	2.0%	59.6	57.7
Westwood Blvd. to Stone Cyn.	Single Family	4	14	3,384	33,840	35	75	0.5	0	2.0%	2.0%	69.6	67.6
Westwood Blvd. to Stone Cyn.	School	4	14	3,384	33,840	35	100	0.5	0	2.0%	2.0%	67.5	65.6
Westwood Blvd. to Stone Cyn.	School	4	14	3,384	33,840	35	75	0.5	0	2.0%	2.0%	69.6	67.6
Stone Cyn. To Copa De Oro Rd.	Single Family	4	14	3,257	32,570	35	75	0.5	0	2.0%	2.0%	69.4	67.5
Copa De Oro Rd. to Bel-Air Rd.	Single Family	4	14	3,497	34,970	35	80	0.5	0	2.0%	2.0%	69.2	67.3
Bel-Air Rd. to Beverly Glen Blvd.	Single Family	4	14	4,661	46,610	35	80	0.5	0	2.0%	2.0%	70.5	68.6
east of Beverly Glen Blvd.	Single Family	4	14	3,070	30,700	35	80	0.5	0	2.0%	2.0%	68.7	66.8
Hilgard Avenue													
Sunset Blvd. to Wyton Dr.	Single Family	4	0	1,496	14,960	30	75	0.5	0	2.0%	2.0%	65.1	63.5
Wyton Dr. to Westholme Ave.	Multi-Family	4	14	1,755	17,550	30	75	0.5	0	2.0%	2.0%	66.0	64.4
Westholme Ave. to Manning Ave.	Church	4	14	1,656	16,560	30	50	0.5	0	2.0%	2.0%	68.9	67.3
Westholme Ave. to Manning Ave.	Multi-Family	4	14	1,656	16,560	30	75	0.5	0	2.0%	2.0%	65.7	64.1

Manning to Le Conte Ave.	Multi-Family	4	0	1,732	17,320	30	50	0	0	2.0%	2.0%	68.5	66.9
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	1,445	14,450	30	50	0	0	2.0%	2.0%	67.5	65.8
Le Conte Ave. to Weyburn Ave.	Church	2	0	1,445	14,450	30	50	0.5	0	2.0%	2.0%	67.5	65.8
Weyburn Ave. to Lindbrook Ave.	Multi-Family	2	0	1,240	12,400	30	50	0	0	2.0%	2.0%	66.8	65.2
Le Conte Avenue													
east of Hilgard Ave.	Multi-Family	2	0	354	3,540	30	40	0.5	0	2.0%	2.0%	62.8	61.2
Gayley Avenue													
Weyburn Ave. to Le Conte Ave.	Multi-Family	2	14	1,814	18,140	35	75	0	0	2.0%	2.0%	67.5	65.5
Le Conte Ave. to Strathmore Pl.	Multi-Family	2	0	1,802	18,020	30	50	0	0	2.0%	2.0%	68.4	66.8
Strathmore Pl. to Veteran Ave.	Multi-Family	2	0	1,357	13,570	30	50	0	0	2.0%	2.0%	67.2	65.6
Strathmore Pl.													
west of Gayley Ave.	Multi-Family	2	0	435	4,350	30	45	0	0	2.0%	2.0%	62.7	61.1
Levering Avenue													
Montana Ave. to Veteran Ave.	Multi-Family	2	0	730	7,300	30	75	0	0	2.0%	2.0%	62.7	61.1
Veteran Ave. to Le Conte Ave.	Multi-Family	2	0	405	4,050	30	75	0	0	2.0%	2.0%	60.2	58.5
Le Conte Ave. to Weyburn Ave.	Multi-Family	2	0	2,852	28,520	30	75	0	0	2.0%	2.0%	68.6	67.0
Veteran Ave.													
Sunset Blvd. to Gayley Ave.	Single and Multi-Family	2	0	1,416	14,160	35	75	0.5	0	2.0%	2.0%	65.4	63.5
Gayley Ave. to Levering Ave.	Multi-Family	2	0	1,241	12,410	35	75	0.5	0	2.0%	2.0%	64.8	62.9
Levering Ave. to Wilshire Blvd.	Multi-Family	4	0	3,240	32,400	35	200	0.5	0	2.0%	2.0%	62.6	60.7
Wilshire Blvd. to Ohio Ave.	Multi-Family	2	0	1,921	19,210	30	50	0	0	2.0%	2.0%	68.7	67.1
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	913	9,130	30	50	0	0	2.0%	2.0%	65.5	63.8
Montana Avenue													
Veteran Ave. to Levering Ave.	Multi-Family	2	0	1,158	11,580	30	50	0.5	0	2.0%	2.0%	66.5	64.9
Levering Ave. to Sepulveda Ave.	Single Family	2	0	1,527	15,270	35	75	0.5	0	2.0%	2.0%	65.7	63.8
west of Sepulveda Blvd.	Single Family	2	0	819	8,190	35	75	0	0	2.0%	2.0%	63.9	62.0
Sepulveda Avenue													
Ovada Pl. to Sunset Blvd	Single Family	6	0	4,106	41,060	40	50	0.5	0	2.0%	2.0%	75.4	73.3
Sunset Blvd. to Montana Ave.	Mulit-Family	4	0	3,337	33,370	40	200	0.5	0	2.0%	2.0%	64.0	62.0
Wilshire Blvd. to Ohio Ave.	Mulit-Family	4	14	2,250	22,500	40	50	0	0	2.0%	2.0%	72.0	69.9
Sawtelle Blvd.													
Ohio Ave. to Santa Monica Blvd.	Multi-Family	2	0	880	8,800	30	45	0.5	0	2.0%	2.0%	66.0	64.4
south of Santa Monica Blvd.	Multi-Family	2	0	1,202	12,020	30	45	0.5	0	2.0%	2.0%	67.4	65.7
Weyburn Avenue													
Glendon Ave. to Westwood Blvd.	Multi-Family	2	0	650	6,500	30	50	0	0	2.0%	2.0%	64.0	62.4
Westwood Blvd. to Gayley Ave.	Multi-Family	2	0	726	7,260	30	50	0	0	2.0%	2.0%	64.5	62.8
Lindbrook Avenue													
Westwood Blvd. to Gayley Ave.	Multi-Family	4	0	606	6,060	30	40	0	0	2.0%	2.0%	65.1	63.5
Wyton Dr.													
east of Hilgard Ave.	Single Family	2	0	276	2,760	30	75	0.5	0	2.0%	2.0%	57.6	56.0
Westholme Ave.													
east of Hilgard Ave.	Single Family	2	0	382	3,820	30	75	0.5	0	2.0%	2.0%	59.0	57.4
Manning Ave.													
east of Hilgard Ave.	Single Family	2	0	136	1,360	30	75	0.5	0	2.0%	2.0%	54.5	52.9
Beverly Glen Boulevard													
Wilshire Blvd. to Comstock Ave.	Single Family	2	0	1,852	18,520	30	100	0	0	2.0%	2.0%	65.5	63.9
Comstock Ave. to Sunset Blvd.	Single Family	2	0	1,691	16,910	30	100	0	-10	2.0%	2.0%	55.1	53.5
Sunset Blvd. to Greendale Dr.	Single Family	2	0	2,053	20,530	30	25	0.5	0	2.0%	2.0%	73.6	72.0
Greendale to Mulholland	Single Family	2	0	1,760	17,600	30	25	0.5	0	2.0%	2.0%	73.0	71.3
Ohio Avenue													
Westwood Blvd. to Veteran Ave.	Multi-Family	2	0	1,540	15,400	30	35	0	0	2.0%	2.0%	69.3	67.7
Veteran Ave. to Sepulveda Ave.	Multi-Family	2	0	1,933	19,330	30	35	0	0	2.0%	2.0%	70.3	68.7
Sepulveda Ave. to Beloit Ave.	Multi-Family	2	0	2,017	20,170	30	25	0.5	0	2.0%	2.0%	73.6	71.9
Beloit Ave. to Sawtelle Blvd.	Multi-Family	2	0	2,045	20,450	30	40	0.5	0	2.0%	2.0%	70.4	68.8
west of Sawtelle Blvd.	Multi-Family	2	0	1,962	19,620	30	40	0.5	0	2.0%	2.0%	70.3	68.6
Bellagio Road													
Chalon Rd. to Sunset Blvd.	Single Family	2	0	924	9,240	25	50	0.5	0	2.0%	2.0%	64.1	62.6
Bel-Air Rd.													
north of Sunset Blvd.	Single Family	2	0	534	5,340	30	75	0.5	0	2.0%	2.0%	60.5	58.8

[1] Distance is from the centerline of the roadway segment to the receptor location.

Appendix 9 Supplementary Hazardous Materials Information

Hazardous Materials Locations

HAZARDOUS MATERIALS LOCATIONS

(This information updates, verifies, and/or corrects the information presented in the 2002 EDR Report)

Location	*Address*	*Comments*
	Resource Conservation and Recovery Act Database	
UCLA	405 Hilgard Avenue	This is the general address for the UCLA campus; UCLA generates, stores, treats, and/or disposes of hazardous wastes in compliance with all applicable federal and State laws
West Coast Spine Institute	100 UCLA Medical Plaza	100 UCLA Medical Plaza is owned and operated by a private developer.
Internal Medicine	100 UCLA Medical Plaza	100 UCLA Medical Plaza is owned and operated by a private developer.
741 Charles E. Young Drive South	741 Charles E. Young Drive South	These underground storage tanks (USTs) were remediated and replaced in 1993
	Cortese List	
UCLA Fleet Maintenance	405 Hilgard Avenue	While this is the general address for the UCLA campus, it is assumed to refer to the USTs located at 741 Charles E. Young Drive South, which was remediated and replaced in 1993
UCLA Medical Center	10833 Le Conte Avenue	These USTs were removed in 1998
UCLA Fleet Service Garage	741 Charles E. Young Drive South	These underground storage tanks (USTs) were remediated and replaced in 1993
	Leaking Underground Storage Tank Incident Report	
UCLA Fleet Service Garage	741 Charles E. Young Drive South	These underground storage tanks (USTs) were remediated and replaced in 1993
UCLA Fleet Maintenance	405 Hilgard Avenue	While this is the general address for the UCLA campus, it is assumed to refer to the USTs located at 741 Charles E. Young Drive South, which was remediated and replaced in 1993
UCLA Fleet Maintenance	405 Hilgard Avenue	While this is the general address for the UCLA campus, it is assumed to refer to the USTs located at 741 Charles E. Young Drive South, which was remediated and replaced in 1993
UCLA Medical Center	10833 Le Conte Avenue	These USTs were removed in 1998
	Underground Storage Tank Database	
Fleet Services	741 Charles E. Young Drive South	This site contains three USTs that were remediated and replaced in 1993 (one waste oil and two gasoline)
UCLA Chiller/Cogeneration	721 Charles E. Young Drive South	This site contains three USTs (three diesel)
UCLA -Ackerman	308 Westwood Plaza	This site contains one UST (diesel)
UCLA-Kerkhoff	308 Westwood Plaza	This site contains one UST (diesel)
UCLA	420 Westwood Plaza	This site contains one UST (diesel)
State of California	805 Hilgard Avenue	This UST was removed in 1993

HAZARDOUS MATERIALS LOCATIONS

(This information updates, verifies, and/or corrects the information presented in the 2002 EDR Report)

Location	Address	Comments
UCLA (Mira Hershey Hall)	801 Hilgard Avenue	This UST was filled with LAFD approval and in accordance with all applicable code requirements in 1990
Southern Regional Library	305 De Neve Drive	This site contains one UST (diesel)
UCLA	405 Hilgard Avenue	This is the general address for the UCLA campus, and it is assumed to refer to all USTs located on campus
Facilities Hospital	10833 Le Conte Avenue	This site contains two USTs (diesel); in addition, four USTs were removed from this site in 1998
Young Hall	609 Charles E. Young Drive East	This site contains one UST (diesel)
Medical Plaza	200 Medical Plaza	This site contains one UST (diesel)
Gonda Building	695 Charles E. Young Drive South	This site contains one UST (diesel)
Boelter Hall	580 Portola Plaza	This site contains one UST (diesel)
Central Steam Plan	710 Charles E. Young Drive South	One UST was filled with LAFD approval and in accordance with all applicable code requirements and five USTs were removed from this site in 1995
Western Medical Steam Plant	1020 Veteran Avenue	Three USTs were removed from this site prior to 1990
Rehabilitation Building	1000 Veteran Avenue	One UST was removed from this site prior to 1990
Parking Structure 8	555 Westwood Plaza	One UST was removed from this site prior to 1990
Dykstra Hall	401 Charles E. Young Drive West	One UST was removed from this site in 1990
Facility Inventory Database		
Fleet Services	741 Charles E. Young Drive South	These underground storage tanks (USTs) were remediated and replaced in 1993
Central Steam Plant		One UST was filled with LAFD approval and in accordance with all applicable code requirements and five USTs were removed from this site in 1995
University of California	705 Charles E. Young Drive South	This is the general site of the cogeneration building. There is no actual building on campus with this address.
UCLA	420 Westwood Plaza	This site contains one UST (diesel)
University of Cal – Los Angeles	801 Hilgard Avenue	This UST was filled in 1990
University of California Los Angeles	405 Hilgard Avenue	This is the general address for the UCLA campus, and it is assumed to refer to all USTs located on campus
University Central Office	1041 Tiverton Avenue	This is an off-campus location
Historical UST Registered Database		
Fleet Services	741 Charles E. Young Drive South	These underground storage tanks (USTs) were remediated and replaced in 1993

HAZARDOUS MATERIALS LOCATIONS

(This information updates, verifies, and/or corrects the information presented in the 2002 EDR Report)

Location	Address	Comments
Central Steam Plant		One UST was filled with LAFD approval and in accordance with all applicable code requirements and five USTs were removed from this site in 1995
Parking Structure 8	555 Westwood Plaza	One UST was removed from this site prior to 1990
Mira Hershey Hall	405 Hilgard Avenue	This UST was filled with LAFD approval and in accordance with all applicable code requirements in 1990
Department of Chemistry	405 Hilgard Avenue	This site contains one UST (diesel)
Warren Hall	900 Veteran Avenue	Current campus records indicate that there are no USTs on this site.
Facilities Hospital	10833 Le Conte Avenue	This site contains two USTs (diesel); in addition, four USTs were removed from this site in 1998
Facilities/Rehabilitation Building	1000 Veteran Avenue	One UST was removed from this site prior to 1990
West Medical Campus Heat/Cool (Steam Plant)	1020 Veteran Avenue	Three USTs were removed from this site prior to 1990
Facility Index System		
West Coast Spine Institute	100 UCLA Medical Plaza	100 UCLA Medical Plaza is owned and operated by a private developer.
Internal Medicine	100 UCLA Medical Plaza	100 UCLA Medical Plaza is owned and operated by a private developer.
UCLA	405 Hilgard Avenue	This is the general address for the UCLA campus; UCLA generates, stores, treats, and/or disposes of hazardous wastes in compliance with all applicable federal and State laws
University of CA Los Angeles Dental	10833 Le Conte Avenue	UCLA generates, stores, treats, and/or disposes of hazardous wastes in compliance with all applicable federal and State laws at this location
University of California Los Angeles	10920 Wilshire Boulevard	This is an off-campus location
Material Licensing Tracking System		
California, University of	10833 Le Conte Avenue	UCLA uses radioactive materials in compliance with all applicable federal and State laws at this location
FTTS		
No listing for UCLA		
State or Local ASTM Supplemental		
No listing for UCLA		
Waste Discharge System		
University of California Los Angeles	405 Hilgard Avenue	This is the general address for the UCLA campus, but the entry likely refers to on-campus construction dewatering

HAZARDOUS MATERIALS LOCATIONS

(This information updates, verifies, and/or corrects the information presented in the 2002 EDR Report)

Location	Address	Comments
Haznet Database		
Parsons Energy & Chemicals	721 Charles E. Young Drive South	This is the cogeneration facility, which receives and/or disposes of hazardous materials
UCLA Medical Center	650 Charles E. Young Drive South	This is the hospital, which receives and/or disposes of hazardous materials
Advanced Elevator (Life Sciences Bldg.)	618 Charles E. Young Drive South	The precise type of hazardous materials received by, or disposed of, at this location is unknown
UCLA/Environmental Health and Safety	885 Levering Avenue	It is assumed that this entry refers to the previous disposal of asbestos as part of seismic remediation activities
University of CA Los Angeles Dental	10833 Le Conte Avenue	This is the hospital, which receives and/or disposes of hazardous materials
Facilities/Rehabilitation Building	1000 Veteran Avenue	This is the rehabilitation building, which receives and/or disposes of hazardous materials

Note: In September of 1998 Circle Drive was renamed Charles E. Young Drive in recognition of Chancellor Young's contributions to the University.

Hazardous Materials Search Results

The EDR Radius Map
with GeoCheck®

UCLA
UCLA
Los Angeles, CA 90024

Inquiry Number: 734861.1s

February 13, 2002

Environmental Data Resources, Inc.

***The* Source For Environmental Risk Management Data**

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

UCLA
LOS ANGELES, CA 90024

COORDINATES

Latitude (North):	34.068780 - 34˚ 4' 7.6"
Longitude (West):	118.448170 - 118˚ 26' 53.4"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	366364.2
UTM Y (Meters):	3770533.8

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	2434118-A4 BEVERLY HILLS, CA
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL........................ National Priority List
Proposed NPL.............. Proposed National Priority List Sites
CERCLIS.................... Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS.................. Corrective Action Report
RCRIS-TSD................. Resource Conservation and Recovery Information System

STATE ASTM STANDARD

AWP........................ Annual Workplan Sites
Notify 65.................. Proposition 65 Records
Toxic Pits................. Toxic Pits Cleanup Act Sites
SWF/LF.................... Solid Waste Information System
WMUDS/SWAT............ Waste Management Unit Database
CA BOND EXP. PLAN...... Bond Expenditure Plan

FEDERAL ASTM SUPPLEMENTAL

CONSENT.................. Superfund (CERCLA) Consent Decrees

ROD	Records Of Decision
Delisted NPL	National Priority List Deletions
HMIRS	Hazardous Materials Information Reporting System
MINES	Mines Master Index File
NPL Liens	Federal Superfund Liens
PADS	PCB Activity Database System
RAATS	RCRA Administrative Action Tracking System
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act

STATE OR LOCAL ASTM SUPPLEMENTAL

AST	Aboveground Petroleum Storage Tank Facilities
CA SLIC	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
LA Co. Site Mitigation	Site Mitigation List
AOCONCERN	San Gabriel Valley Areas of Concern

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas	Former Manufactured Gas (Coal Gas) Sites

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the target property includes a tolerance of +/- 10 feet. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL ASTM STANDARD

CERCLIS-NFRAP: As of February 1995. CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

A review of the CERC-NFRAP list, as provided by EDR, and dated 11/21/2001 has revealed that there is 1 CERC-NFRAP site within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
USVA MEDICAL CENTER WEST LA 13	***11296 WILSHIRE BLVD***	*1/2 - 1 S*	*190*	*119*

EXECUTIVE SUMMARY

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 06/21/2000 has revealed that there is 1 RCRIS-LQG site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSITY OF CALIFORNIA LOS A	*405 HILGARD AVE*	*1/2 - 1 ENE*	*AD131*	*78*

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 06/21/2000 has revealed that there are 13 RCRIS-SQG sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WEST COAST SPINE INSTITUTE	*100 UCLA MEDICAL PLAZA*	*0 - 1/8 NNE*	*A2*	*6*
INTERNAL MEDICINE	*100 UCLA MEDICAL PLAZA*	*0 - 1/8 NNE*	*A3*	*6*

Lower Elevation	Address	Dist / Dir	Map ID	Page
UNIV OF CA LOS ANGELES DENTAL	*10833 LE CONTE AVE RM10*	*1/4 - 1/2 SE*	*54*	*29*
LONDON CLEANERS	*1073 GAYLEY AVE*	*1/2 - 1 S*	*T79*	*42*
PIP PRINTING	*1080 GLENDON AVE*	*1/2 - 1 SSE*	*V83*	*46*
WESTWOOD CENTER	*1100 GLENDON AVE SUTIE*	*1/2 - 1 SSE*	*V91*	*51*
SYSTEM ONE	*1105 GAYLEY AVE*	*1/2 - 1 S*	*X95*	*54*
LA FIRE STATION 37	*1090 VETERAN AVE*	*1/2 - 1 S*	*Z103*	*58*
30 MIN FOTO QUICK	*1145 WESTWOOD BLVD*	*1/2 - 1 SSE*	*AA105*	*60*
USVA MEDICAL CENTER WEST LA 13	*11296 WILSHIRE BLVD*	*1/2 - 1 S*	*190*	*119*
WESTWOOD ELECTRICAL	*1200 S SEPULVEDA BLVD*	*1/2 - 1 S*	*207*	*131*
FEILER BROS WILSHIRE CONDOS	*10580 WILSHIRE BLVD*	*1/2 - 1 ESE*	*AV221*	*136*
FEDERAL BUREAU OF INVESTIGATIO	*1260 S SEPULVEDA BLVD*	*1/2 - 1 S*	*AW224*	*139*

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 08/08/2000 has revealed that there are 4 ERNS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
741 CIRCLE DRIVE SOUTH FLEET S	741 CIRCLE DRIVE SOUTH	1/4 - 1/2 ESE	D11	10
401 LAND FAIR AVE	401 LAND FAIR AVE	1/4 - 1/2 WNW	19	14
10570 SUNSET BLVD	10570 SUNSET BLVD	1/2 - 1 NNE	134	81

Lower Elevation	Address	Dist / Dir	Map ID	Page
UNOCAL #1065, 1157 W. GAYLEY	UNOCAL #1065, 1157 W. G	1/2 - 1 S	116	67

EXECUTIVE SUMMARY

STATE ASTM STANDARD

CAL-SITES: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control.

A review of the Cal-Sites list, as provided by EDR, has revealed that there is 1 Cal-Sites site within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
WILSHIRE WESTWOOD ASSOCIATES	10936 WILSHIRE BOULEVAR	1/2 - 1 SSE	AI152	93

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/1994 has revealed that there is 1 CHMIRS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	UCLA BUILDING 39 B	1/8 - 1/4ENE	6	8

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, has revealed that there are 9 Cortese sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UCLA FLEET MAINTENANCE	***405 HILGARD AVE***	***1/2 - 1 ENE***	***AD124***	***73***
COMMERCIAL/RESIDENTIAL PROP.	***248 COMSTOCK AVE***	***1/2 - 1 NE***	***189***	***118***
PACIFIC HOLDING CO.	***10644 BELLAGIO RD***	***1/2 - 1 N***	***AP201***	***127***

Lower Elevation	Address	Dist / Dir	Map ID	Page
CHEVRON 93100	***10984 LE CONTE***	***1/4 - 1/2S***	***H28***	***19***
SHELL #204-4530-4007	900 GAYLEY AVE	1/4 - 1/2S	L44	26
UCLA MEDICAL CENTER	***10833 LE CONTE***	***1/4 - 1/2SE***	***O60***	***32***
76 PRODUCTS STATION #1065	***1157 GAYLEY AVE W***	***1/2 - 1 SSE***	***AC122***	***71***
MURDOCK PLAZA	10900 WILSHIRE	1/2 - 1 SSE	AG140	85
HERTZ - WEST LA	***10951 WILSHIRE BLVD***	***1/2 - 1 SSE***	***AE158***	***96***

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 01/17/2002 has revealed that there are 12 LUST sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UCLA FLEET SERVICE GARAGE	741 CIRCLE DR S	1/4 - 1/2ESE	E15	12

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UCLA FLEET MAINTENANCE	*405 HILGARD AVE*	*1/2 - 1 ENE*	*AD124*	*73*
COMMERCIAL/RESIDENTIAL PROP.	*248 COMSTOCK AVE*	*1/2 - 1 NE*	*189*	*118*
PACIFIC HOLDING CO.	*10644 BELLAGIO RD*	*1/2 - 1 N*	*AP201*	*127*

Lower Elevation	Address	Dist / Dir	Map ID	Page
CHEVRON #9-3100	10984 LE CONTE AVE	1/4 - 1/2 S	H25	17
SHELL #204-4530-4007	900 GAYLEY AVE	1/4 - 1/2 S	L42	24
UCLA MEDICAL CENTER	*10833 LE CONTE*	*1/4 - 1/2 SE*	*O60*	*32*
76 PRODUCTS STATION #1065	*1157 GAYLEY AVE W*	*1/2 - 1 SSE*	*AC122*	*71*
MURDOCK PLAZA	10900 WILSHIRE BLVD W	1/2 - 1 SSE	AG150	91
HERTZ - WEST LA	*10951 WILSHIRE BLVD*	*1/2 - 1 SSE*	*AE158*	*96*
HERTZ - WEST LA	10951 WILSHIRE BLVD	1/2 - 1 SSE	AE159	97
CENTER WEST	10877 WILSHIRE BLVD	1/2 - 1 SSE	AF172	107

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 01/17/2002 has revealed that there are 27 UST sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
FLEET SERVICES, CSB-I, ROOM 12	741 CIRCLE DR S RM 1250	1/4 - 1/2 ESE	D12	10
UCLA CHILLER/CO GENERATIONPL	721 CIRCLE DR S	1/4 - 1/2 ESE	F18	14
UCLA - ACKERMAN	308 WESTWOOD PLZ	1/4 - 1/2 NNE	J32	21
UCLA - KERKHOFF	308 WESTWOOD PLZ	1/4 - 1/2 NNE	J33	21
UCLA	420 WESTWOOD PLZ	1/4 - 1/2 NE	M50	28
STATE OF CALIFORNIA	805 HILGARD AVE	1/2 - 1 ESE	Q65	36
UNIVERSITY OF CAL.-LOS ANGELES	801 HILGARD AVE	1/2 - 1 ESE	Q67	37
SO. REGIONAL LIBRARY @ UCLA	305 DE NEVE DR	1/2 - 1 NW	77	41
UCLA	405 HILGARD AVE	1/2 - 1 ENE	AD125	74
BEL-AIR COUNTRY CLUB	10768 BELLAGIO RD	1/2 - 1 N	AN192	122
DAVID H MURDOCK	10644 BELLAGIO RD	1/2 - 1 N	AP202	128

Lower Elevation	Address	Dist / Dir	Map ID	Page
CHEVRON STATION #9-3100	10984 LE CONTE AVE	1/4 - 1/2 S	H30	21
SHELL OIL CO- ENVRMNT ANALYST	900 GAYLEY AVE	1/4 - 1/2 S	L45	26
FACILITIES/HOSPITAL	*10833 LE CONTE AVE*	*1/4 - 1/2 SE*	*O61*	*34*
GTE-UNIVERSITY C.O.	1041 TIVERTON AVE	1/2 - 1 SSE	W94	54
LOS ANGELES FIRE STATION 37	1090 VETERAN AVE	1/2 - 1 S	Z101	57
TOSCO CORPORATION #30377	1157 GAYLEY AVE	1/2 - 1 SSE	AC117	67
MURDOCK PLAZA	*10900 WILSHIRE BLVD*	*1/2 - 1 SSE*	*AG139*	*84*
REGENTS UCLA	10920 WILSHIRE BLVD	1/2 - 1 SSE	AH144	87
SWISS BANK CORP.	10960 WILSHIRE BLVD	1/2 - 1 SSE	AE161	98
WESTWOOD PLACE	10866 WILSHIRE BLVD	1/2 - 1 SSE	AJ177	110
LONGFORD CONDOMINIUM ASSOC	10790 WILSHIRE BLVD	1/2 - 1 SE	AM188	117
PARK WILSHIRE LTD	10720 WILSHIRE BLVD	1/2 - 1 SE	AO198	126
URBAN PACIFIC CORP	10520 WILSHIRE BLVD	1/2 - 1 ESE	AU213	133
BRESLOW DEVEL CORP	10490 WILSHIRE BLVD	1/2 - 1 ESE	AS217	135
THAYER LTD INC	10580 WILSHIRE BLVD	1/2 - 1 ESE	AV220	136
U.S. GENERAL SERVICES ADM	1260 S SEPULVEDA BLVD	1/2 - 1 S	AW225	141

EXECUTIVE SUMMARY

CA FID: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, has revealed that there are 39 CA FID UST sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
FLEET SERVICES, CSB-I, ROOM 12	741 S CIRCLE DR	1/4 - 1/2 ESE	E20	15
CENTRAL STEAM PLANT	710 S CIRCLE DR	1/4 - 1/2 ESE	I31	21
UNIVERISTY OF CALIFORNIA	705 S CIRCLE DR	1/4 - 1/2 ESE	I34	21
UCLA	420 WESTWOOD PLZ	1/4 - 1/2 NE	M49	28
UNK	10701 SUNSET	1/4 - 1/2 NNE	51	28
UNIVERSITY OF CAL.-LOS ANGELES	801 HILGARD AVE	1/2 - 1 ESE	Q66	37
MARYMOUNT HIGH SCHOOL	10643 W SUNSET BLVD	1/2 - 1 NNE	Y98	56
UNIVERSITY OF CALIFORNIA LOS A	***405 HILGARD AVE***	***1/2 - 1 ENE***	***AD131***	***78***
WARREN PONTIAC	***400 S SEPULVEDA BLVD***	***1/2 - 1 W***	***191***	***121***
BEL-AIR COUNTRY CLUB	10768 BELLAGIO RD	1/2 - 1 N	AN194	123
DAVID H MURDOCK	10644 BELLAGIO RD	1/2 - 1 N	AP200	126

Lower Elevation	Address	Dist / Dir	Map ID	Page
UCLA AMBULATORY CARE COMPLEX	100 MEDICAL PZ	1/4 - 1/2 SSE	16	13
CHEVRON STATION #3100	10984 LE CONTE AVE	1/4 - 1/2 S	H27	18
R/S OIL COMPANY/C	900 GAYLEY AVE	1/4 - 1/2 S	L40	24
WARREN HALL	900 VETERAN AVE	1/4 - 1/2 SSW	N56	32
FACILITIES/HOSPITAL	10833 LE CONTE AVE	1/4 - 1/2 SE	O59	32
FACILITIES/REHABILITATION BLDG	1000 VETERAN AVE	1/2 - 1 SSW	R71	39
WEST MEDICAL CAMPUS HEAT/COOL	1020 VETERAN AVE	1/2 - 1 SSW	S74	40
UNIVERSITY CENTRAL OFFICE	1041 TIVERTON AVE	1/2 - 1 SSE	W93	54
LOS ANGELES FIRE STATION 37	1090 VETERAN AVE	1/2 - 1 S	Z102	58
WESTWOOD TUNE-UP	1155 GLENDON AVE	1/2 - 1 SSE	AB111	64
SERVICE STATION 1065	***1157 W GAYLEY AVE***	***1/2 - 1 SSE***	***AC121***	***70***
FREDERICK W FIELD	10900 WILSHIRE BLVD	1/2 - 1 SSE	AG138	83
TISHMAN MIDVALE	10920 WILSHIRE BLVD	1/2 - 1 SSE	AH145	87
C L PECK	10936 WILSHIRE BLVD	1/2 - 1 SSE	AI151	92
WESTWOOD TUNE-UP	10889 WILSHIRE BLVD	1/2 - 1 SSE	AF153	93
HERTZ CORPORATION	10951 WILSHIRE BLVD	1/2 - 1 SSE	AE160	98
HINES INTERESTS	10960 WILSHIRE BLVD	1/2 - 1 SSE	AE165	102
TISHMAN WEST MANAGEMENT CORP	10880 WILSHIRE BLVD	1/2 - 1 SSE	AF168	104
WILSHIRE GLENDON ASSOCIATES LT	10877 WILSHIRE BLVD	1/2 - 1 SSE	AF175	109
WESTWOOD PLACE	10866 WILSHIRE BLVD	1/2 - 1 SSE	AJ176	110
ONE WESTWOOD OFFICE BUILDING	***10990 WILSHIRE BLVD***	***1/2 - 1 S***	***AK180***	***111***
LOS ANGELES NATIONAL CEMETERY	950 S SEPULVEDA BLVD	1/2 - 1 SSW	AL185	116
LONGFORD CONDOMINIUM ASSOC	10790 WILSHIRE BLVD	1/2 - 1 SE	AM187	117
PARK WILSHIRE LTD	10720 WILSHIRE BLVD	1/2 - 1 SE	AO197	125
VILLAGE CAR WASH	1360 WESTWOOD BLVD	1/2 - 1 SSE	AQ205	130
URBAN PACIFIC CORP	10520 WILSHIRE BLVD	1/2 - 1 ESE	AU212	133
OVERLAND PLUR	10490 WILSHIRE BLVD	1/2 - 1 ESE	AS215	134
THAYER LTD INC	10580 WILSHIRE BLVD	1/2 - 1 ESE	AV222	138

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 22 HIST UST sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
FLEET SERVICES, CSB-I, ROOM 12	741 CIRCLE DR S	1/4 - 1/2 ESE	D10	9

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CENTRAL STEAM PLANT	710 CIRCLE DR S	1/4 - 1/2 ESE	F21	15
FACILITIES/PARKING STRUCTURE #	555 WESTWOOD PLZ	1/4 - 1/2 NNE	24	16
SAWTELLE PRESSURE BREAK	10673 W SUNSET BLVD	1/2 - 1 NNE	68	37
MARYMOUNT HIGH SCHOOL	10643 SUNSET BLVD	1/2 - 1 NNE	Y97	55
MIRA HERSHEY HALL	405 HILGARD AVE	1/2 - 1 ENE	AD127	75
DEPARTMENT OF CHEMISTRY	405 HILGARD AVE	1/2 - 1 ENE	AD129	77

Lower Elevation	Address	Dist / Dir	Map ID	Page
93100	10984 LE CONTE	1/4 - 1/2 S	H29	20
R&S OIL COMPANY	900 GAYLEY AVE	1/4 - 1/2 S	L43	25
WARREN HALL	900 VETERAN AVE	1/4 - 1/2 SSW	N55	31
FACILITIES/HOSPITAL	***10833 LE CONTE AVE***	***1/4 - 1/2 SE***	***O61***	***34***
FACILITIES/REHABILITATION BLDG	***1000 VETERAN AVE***	***1/2 - 1 SSW***	***R70***	***39***
WEST MEDICAL CAMPUS HEAT/COOL	1020 VETERAN AVE	1/2 - 1 SSW	S75	40
FIRE STATION 37	1090 VETERAN AVE	1/2 - 1 S	Z100	57
WESTWOOD TUNE-UP	1155 GLENDON AVE	1/2 - 1 SSE	AB112	64
UNION OIL SERVICE STATION LEAS	1157 GAYLEY AVE	1/2 - 1 SSE	AC120	70
SERVICE STATION 1065	***1157 W GAYLEY AVE***	***1/2 - 1 SSE***	***AC121***	***70***
WESTWOOD TUNE-UP	10889 WILSHIRE BLVD	1/2 - 1 SSE	AF155	95
HERTZ CORPORATION	10951 WILSHIRE BLVD	1/2 - 1 SSE	AE157	96
LOS ANGELES NATIONAL CEMETERY	950 S SEPULVEDA BLVD	1/2 - 1 SSW	AL184	116
USVA MEDICAL CENTER WEST LA 13	***11296 WILSHIRE BLVD***	***1/2 - 1 S***	***190***	***119***
VILLAGE CAR WASH	1360 WESTWOOD BLVD	1/2 - 1 SSE	AQ206	130

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 10/29/2001 has revealed that there are 19 FINDS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WEST COAST SPINE INSTITUTE	***100 UCLA MEDICAL PLAZA***	***0 - 1/8 NNE***	***A2***	***6***
INTERNAL MEDICINE	***100 UCLA MEDICAL PLAZA***	***0 - 1/8 NNE***	***A3***	***6***
UNIVERSITY OF CALIFORNIA LOS A	***405 HILGARD AVE***	***1/2 - 1 ENE***	***AD131***	***78***

Lower Elevation	Address	Dist / Dir	Map ID	Page
LUZ ENGINEERING CORP	924 WESTWOOD BLVD	1/4 - 1/2 SSE	K38	23
UNIV OF CA LOS ANGELES DENTAL	***10833 LE CONTE AVE RM10***	***1/4 - 1/2 SE***	***54***	***29***
LONDON CLEANERS	***1073 GAYLEY AVE***	***1/2 - 1 S***	***T79***	***42***
PIP PRINTING	***1080 GLENDON AVE***	***1/2 - 1 SSE***	***V83***	***46***
MR. CHRISTAL INC (DONALD CHRI	***1100 GLENDON AVE 1250***	***1/2 - 1 SSE***	***V90***	***51***
WESTWOOD CENTER	***1100 GLENDON AVE SUTIE***	***1/2 - 1 SSE***	***V91***	***51***

Lower Elevation	Address	Dist / Dir	Map ID	Page
SYSTEM ONE	*1105 GAYLEY AVE*	*1/2 - 1 S*	*X95*	*54*
LA FIRE STATION 37	*1090 VETERAN AVE*	*1/2 - 1 S*	*Z103*	*58*
30 MIN FOTO QUICK	*1145 WESTWOOD BLVD*	*1/2 - 1 SSE*	*AA105*	*60*
UNIVERSITY OF CALIFORNIA LOS A	10920 WILSHIRE BLVD	1/2 - 1 SSE	AH143	86
ALTERNA INC	*10877 WILSHIRE BLVD*	*1/2 - 1 SSE*	*AF174*	*109*
KAUFMAN & BROAD HOME CORP	10990 WILSHIRE BLVD	1/2 - 1 S	AK178	110
USVA MEDICAL CENTER WEST LA 13	*11296 WILSHIRE BLVD*	*1/2 - 1 S*	*190*	*119*
WESTWOOD ELECTRICAL	*1200 S SEPULVEDA BLVD*	*1/2 - 1 S*	*207*	*131*
FEILER BROS WILSHIRE CONDOS	*10580 WILSHIRE BLVD*	*1/2 - 1 ESE*	*AV221*	*136*
FEDERAL BUREAU OF INVESTIGATIO	*1260 S SEPULVEDA BLVD*	*1/2 - 1 S*	*AW224*	*139*

MLTS: The Material Licensing Tracking System is maintained by the Nuclear Regulatory Commission and contains a list fo approximately 8,100 sites which possess or use radioactive materials and are subject to NRC licensing requirements.

A review of the MLTS list, as provided by EDR, and dated 10/25/2001 has revealed that there are 3 MLTS sites within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
CALIFORNIA, UNIVERSITY OF	10833 LE CONTE AVENUE	1/4 - 1/2SE	O58	32
WHITTAKER CORP	10880 WILSHIRE BLVD	1/2 - 1 SSE	AF169	104
USVA MEDICAL CENTER WEST LA 13	*11296 WILSHIRE BLVD*	*1/2 - 1 S*	*190*	*119*

FTTS: FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the FTTS list, as provided by EDR, and dated 10/25/2001 has revealed that there are 2 FTTS sites within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
MR. CHRISTAL INC (DONALD CHRI	*1100 GLENDON AVE 1250*	*1/2 - 1 SSE*	*V90*	*51*
ALTERNA INC	*10877 WILSHIRE BLVD*	*1/2 - 1 SSE*	*AF174*	*109*

STATE OR LOCAL ASTM SUPPLEMENTAL

DRYCLEANERS:A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the CLEANERS list, as provided by EDR, and dated 07/27/2001 has revealed that there is 1 CLEANERS site within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
RITZ DRY CLEANERS	*1074 GAYLEY*	*1/2 - 1 S*	*T81*	*45*

EXECUTIVE SUMMARY

WDS: California Water Resources Control Board - Waste Discharge System.

A review of the CA WDS list, as provided by EDR, and dated 07/19/2001 has revealed that there are 2 CA WDS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSITY OF CALIFORNIA LOS A	*405 HILGARD AVE*	*1/2 - 1 ENE*	*AD131*	*78*

Lower Elevation	Address	Dist / Dir	Map ID	Page
ONE WESTWOOD OFFICE BUILDING	*10990 WILSHIRE BLVD*	*1/2 - 1 S*	*AK180*	*111*

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, has revealed that there are 110 HAZNET sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
1X PHI KAPPA SIGMA HOUSING COR	10938 STRATHMORE DRIVE	0 - 1/8 WSW	1	6
UCLA	641 LANDFAIR	1/8 - 1/4 SSW	B4	7
MILLAR ELEVATOR COMPANY	641 LANDFAIR	1/8 - 1/4 SSW	B5	7
UCLA/LANDFAIR APARTMENT	558 GLENROCK AVE	1/8 - 1/4 WSW	C7	8
UCLA	564 GLENROCK	1/8 - 1/4 SW	C8	9
JOHN WEISS	655 LEVERING	1/8 - 1/4 SW	9	9
UCLA MED CENTER	480 GAYLEY ST	1/4 - 1/2 WNW	13	11
VILLAGE HOUSE CONDOMINIUM HOME	11044 OPHIR DR	1/4 - 1/2 W	14	11
PARSONS ENERGY & CHEMICALS GRO	721 CIRCLE DR SOUTH	1/4 - 1/2 ESE	F17	13
UCLA MEDICAL CENTER	650 CIRCLE DR SOUTH	1/4 - 1/2 ESE	36	23
ADVANCE ELEVATOR INC	618 CHARLES E YOUNG DR	1/4 - 1/2 ESE	52	28
THE LOS ANGELES HILLEL COUNCIL	574 HILGARD AVE	1/2 - 1 E	72	39
MARYMOUNT HIGH SCHOOL	10643 SUNSET BLVD	1/2 - 1 NNE	Y99	56
MARY WHITE	555 PERUGIA WAY	1/2 - 1 N	123	73
UNIVERSITY OF CALIFORNIA-LA	405 HILGARD AVE	1/2 - 1 ENE	AD126	75
UNIVERSITY OF CALIFORNIA-LOS A	405 HILGARD AVE	1/2 - 1 ENE	AD128	76
UCLA/FOWLER MUSEUM OF CULTURAL	405 HILGARD AVE	1/2 - 1 ENE	AD130	77
YALE UNIVERSITY	520 SO SEPULVEDA	1/2 - 1 WSW	132	79
JOAN REAL ESTATE INC	220 BENTLEY CIRCLE	1/2 - 1 NW	135	81
BEL AIR COUNTRY CLUB	10768 BELLAGIO ROAD	1/2 - 1 N	AN193	122
UCLA ENVIRONMENT HEALTH SAFETY	626 SIENA WAY	1/2 - 1 N	204	130
DOUG'S TUG INC	222 WOODRUFF AVENUE	1/2 - 1 NE	219	136

Lower Elevation	Address	Dist / Dir	Map ID	Page
ONYX HOLDINGS INC	11023 STRATHMORE DR	1/4 - 1/2 SSW	G22	16
DELTA-NU CHAPTER OF KAPPA SIGM	11024 STRATHMORE DR	1/4 - 1/2 SSW	G23	16
UCLA / ENVIRONMENT HEALTH & SA	885 LEVERING AVE	1/4 - 1/2 S	26	18
CHEVRON 93100	***10984 LE CONTE***	***1/4 - 1/2 S***	***H28***	***19***
1X THREE-S PROPERTIES	939 BROXTON	1/4 - 1/2 S	35	22
COPYMAT	923 WESTWOOD BLVD	1/4 - 1/2 SSE	K37	23
WESTWOOD PLAZA_TRUST CO OF THE	924 WESTWOOD BLVD	1/4 - 1/2 SSE	K39	23
SHELL	900 GAYLEY	1/4 - 1/2 S	L41	24

EXECUTIVE SUMMARY

Lower Elevation	Address	Dist / Dir		Map ID	Page
GEFFEN PLAYHOUSE INC	10886 LECONTE AVE	1/4 - 1/2	SSE	46	26
VILLAGE 1-HR	929 WESTWOOD BLVD	1/4 - 1/2	SSE	K47	27
VILLAGE PHOTO	929 WESTWOOD BLVD	1/4 - 1/2	SSE	K48	27
WESTWOOD PROMENADE	1001 WESTWOOD BLVD	1/4 - 1/2	SSE	53	29
UNIV OF CA LOS ANGELES DENTAL	***10833 LE CONTE AVE RM10***	***1/4 - 1/2***	***SE***	***54***	***29***
WESTWOOD VILLAGE CHIROPRACTIC	1015 GAYLEY AVE	1/4 - 1/2	S	57	32
PAUL BECKSTEAD DDS	1033 GAYLEY AVE, #102	1/2 - 1	S	P62	35
WESTWOOD PROF BLDG	1033 GAYLEY AVE	1/2 - 1	S	P63	36
WESTWOOD HORIZONS TRUST	947 TIVERTON AVE	1/2 - 1	SE	64	36
CO MADISON MARQUETTE RETAIL SR	10861 WEYBURN AVE	1/2 - 1	SSE	69	38
FACILITIES/REHABILITATION BLDG	***1000 VETERAN AVE***	***1/2 - 1***	***SSW***	***R70***	***39***
1X WESTWOOD MARQUIS HOTEL	930 HILLGUARD	1/2 - 1	SE	73	40
JAKOSKY TRUST	1063 GAYLEY AVE	1/2 - 1	S	T76	41
HELENS CYCLES	1071 GAYLEY AVE	1/2 - 1	S	T78	42
LONDON CLEANERS	***1073 GAYLEY AVE***	***1/2 - 1***	***S***	***T79***	***42***
UCLA - ENVIRONMENT HEALTH & SA	1072 GAYLEY	1/2 - 1	S	T80	44
RITZ DRY CLEANERS	***1074 GAYLEY***	***1/2 - 1***	***S***	***T81***	***45***
MARIA HERSHOVIC	1095 BROXTON	1/2 - 1	SSE	U82	46
THRIFTY PAYLESS DRUGS	1101 WESTWOOD BLVD	1/2 - 1	SSE	U84	47
WESTWOOD DOME PARTNERS	1099 WESTWOOD BLVD	1/2 - 1	SSE	U85	48
RITE AID #5433	1101 WESTWOOD BLVD	1/2 - 1	SSE	U86	48
WESTWOOD MARQUIS	930 HILLGUARD AVE	1/2 - 1	SE	87	49
WELLS FARGO BANK	10925 KINROSS AVE	1/2 - 1	SSE	U88	50
JOGOPULOS CHIROPRACTIC CENTER	1100 GLENDON AVE	1/2 - 1	SSE	V89	50
WESTWOOD CENTER	***1100 GLENDON AVE SUTIE***	***1/2 - 1***	***SSE***	***V91***	***51***
GTE CALIFORNIA	1041 TIVERTON	1/2 - 1	SSE	W92	53
SYSTEM ONE	***1105 GAYLEY AVE***	***1/2 - 1***	***S***	***X95***	***54***
SYSTEM ONE	1105 GAYLEY AVENUE	1/2 - 1	S	X96	55
LA FIRE STATION 37	***1090 VETERAN AVE***	***1/2 - 1***	***S***	***Z103***	***58***
THE ITALIAN CONSULATE	1023 HILGARD AVENUE	1/2 - 1	SE	104	60
30 MIN FOTO QUICK	***1145 WESTWOOD BLVD***	***1/2 - 1***	***SSE***	***AA105***	***60***
30 MINUTE FOTO QUICK	1144 WESTWOOD BLVD	1/2 - 1	SSE	AA106	61
FOX PHOTO INC	1161 WESTWOOD BLVD	1/2 - 1	SSE	AA107	62
ALPHA GRAPHICS	10910 LINDBROOK DR	1/2 - 1	SSE	AA108	63
VILLA WESTWOOD ASSOCIATES	10920 LINDBROOK AVE	1/2 - 1	SSE	AA109	64
CINAMERICA THEATRES	10925 LINDBROOK DRIVE	1/2 - 1	SSE	AA110	64
WOLF CAMERA #05017	1165 WESTWOOD BLVD	1/2 - 1	SSE	113	65
TOSCO CORPORATION, STATION #30	1157 W GAYLE AVE	1/2 - 1	SSE	AC114	65
TERI ANN GIBSON DDS	10845 LINDBROOK DRIVE	1/2 - 1	SSE	115	66
UNOCAL SVC STA #1065	1157 W GAYLEY AVE	1/2 - 1	SSE	AC118	68
JOHN FAWCETT UNION #2	1157 GAYLEY AVE	1/2 - 1	SSE	AC119	69
ALAN ROBERTS MD INC	10921 WILSHIRE BLVD STE	1/2 - 1	SSE	AE133	80
BEACON PROPERTIES LP	10880 WILSHIRE BLVD	1/2 - 1	SSE	AF136	82
OPPENHEIMER	10880 WILSHIRE BLVD	1/2 - 1	SSE	AF137	83
MURDOCK PLAZA	***10900 WILSHIRE BLVD***	***1/2 - 1***	***SSE***	***AG139***	***84***
WASHINGTON MUTUAL	10901 WILSHIRE BLVD	1/2 - 1	SSE	AG141	85
10920 WILSHIRE BLDG/UC REGENTS	10920 WILSHIRE	1/2 - 1	SSE	AH142	85
EDWARD M LEHRNER DDS	10921 WILSHIRE BLVD	1/2 - 1	SSE	AH146	87
TOMAS ANDERKVIST DDS	10921 WILSHIRE BLVD #11	1/2 - 1	SSE	AH147	88
TRACY GOLDEN DMD	10921 WILSHIRE BLVD	1/2 - 1	SSE	AH148	89
MULLER COMPANY WW WESTWOOD LP	10921 WILSHIRE BLVD	1/2 - 1	SSE	AH149	90
OXY WESTWOOD CORPORATION	10889 WILSHIRE BLVD,#10	1/2 - 1	SSE	AF154	94
TISHMAN SPEYER	10940 WILSHIRE BLVD	1/2 - 1	SSE	AI156	95
BEACON PROPERTIES LP	10960 WILSHIRE BLVD	1/2 - 1	SSE	AE162	98
EQUITY OFFICE PROPERTIES	10960 WILSHIRE BLVD	1/2 - 1	SSE	AE163	99
TISHMAN WEST MANAGEMENT CORP	10960 WILSHIRE BLVD	1/2 - 1	SSE	AE164	101

EXECUTIVE SUMMARY

Lower Elevation	Address	Dist / Dir		Map ID	Page
SABIN PLAZA	10960 WILSHIRE BLVD	1/2 - 1	SSE	AE166	102
EQUITY OFFICE PROP MANAGEMENT	10880 WILSHIRE BLVD	1/2 - 1	SSE	AF167	103
EQUITY OFFICE	10880 WILSHIRE BLVD	1/2 - 1	SSE	AF170	104
WILSHIRE WEST PLAZA	10880 WILSHIRE BLVD	1/2 - 1	SSE	AF171	106
CALIFORNIA SUN CARE	10877 WILSHIRE BLVD	1/2 - 1	SSE	AF173	108
LASALLE PARTNERS CORP	10990 WILSHIRE BLVD	1/2 - 1	S	AK179	110
GENERAL SERVICES ADMINISTRATIO	11000 WILSHIRE BLVD	1/2 - 1	S	AK181	112
AVCO CENTER	10850 WILSHIRE BLVD STE	1/2 - 1	SSE	182	114
AVCO CENTER CORP	10850 WILSHIRE BLVD	1/2 - 1	SSE	AJ183	115
L A NATIONAL CEMERTARY INC	950 S SEPULVEDA BLVD	1/2 - 1	SSW	AL186	116
DOUBLE TREE HOTEL, INC	10740 WILSHIRE BLVD	1/2 - 1	SE	195	124
MILLAR ELEVATOR	11301 WILSHIRE BLVD BL	1/2 - 1	S	196	124
JAMES UDALLA	1301 WESTWOOD BLVD	1/2 - 1	SSE	199	126
NATIONAL GENETICS INSTITUTE	1333 WESTWOOD BLVD	1/2 - 1	SSE	203	128
RED BULL CONSTRUCTION INC	10601 WILSHIRE BLVD	1/2 - 1	ESE	AR208	131
WILSHIRE REGENTS	10501 WILSHIRE	1/2 - 1	ESE	AS209	132
MCQUAY	10535 WILSHIRE	1/2 - 1	ESE	AT210	132
THE HOTEL DE CAPRI	10587 WILSHIRE BLVD	1/2 - 1	ESE	AR211	133
THE DORCHESTER	10520 WILSHIRE BLVD	1/2 - 1	ESE	AU214	133
THE BLAIR HOUSE	10490 WILSHIRE BLVD	1/2 - 1	ESE	AS216	135
WILSHIRE WESTWOOD	10530-40 WILSHIRE BLVD.	1/2 - 1	ESE	AT218	135
FEILER BROS WILSHIRE CONDOS	***10580 WILSHIRE BLVD***	***1/2 - 1***	***ESE***	***AV221***	***136***
FEDERAL BUREAU INVESTIGATION	1260 SO SEPULVEDA BLVD	1/2 - 1	S	AW223	138
FEDERAL BUREAU OF INVESTIGATIO	***1260 S SEPULVEDA BLVD***	***1/2 - 1***	***S***	***AW224***	***139***

HMS: Los Angeles County Industrial Waste and Underground Storage Tank Sites.

A review of the LOS ANGELES CO. HMS list, as provided by EDR, has revealed that there is 1 LOS ANGELES CO. HMS site within approximately 1 mile of the target property.

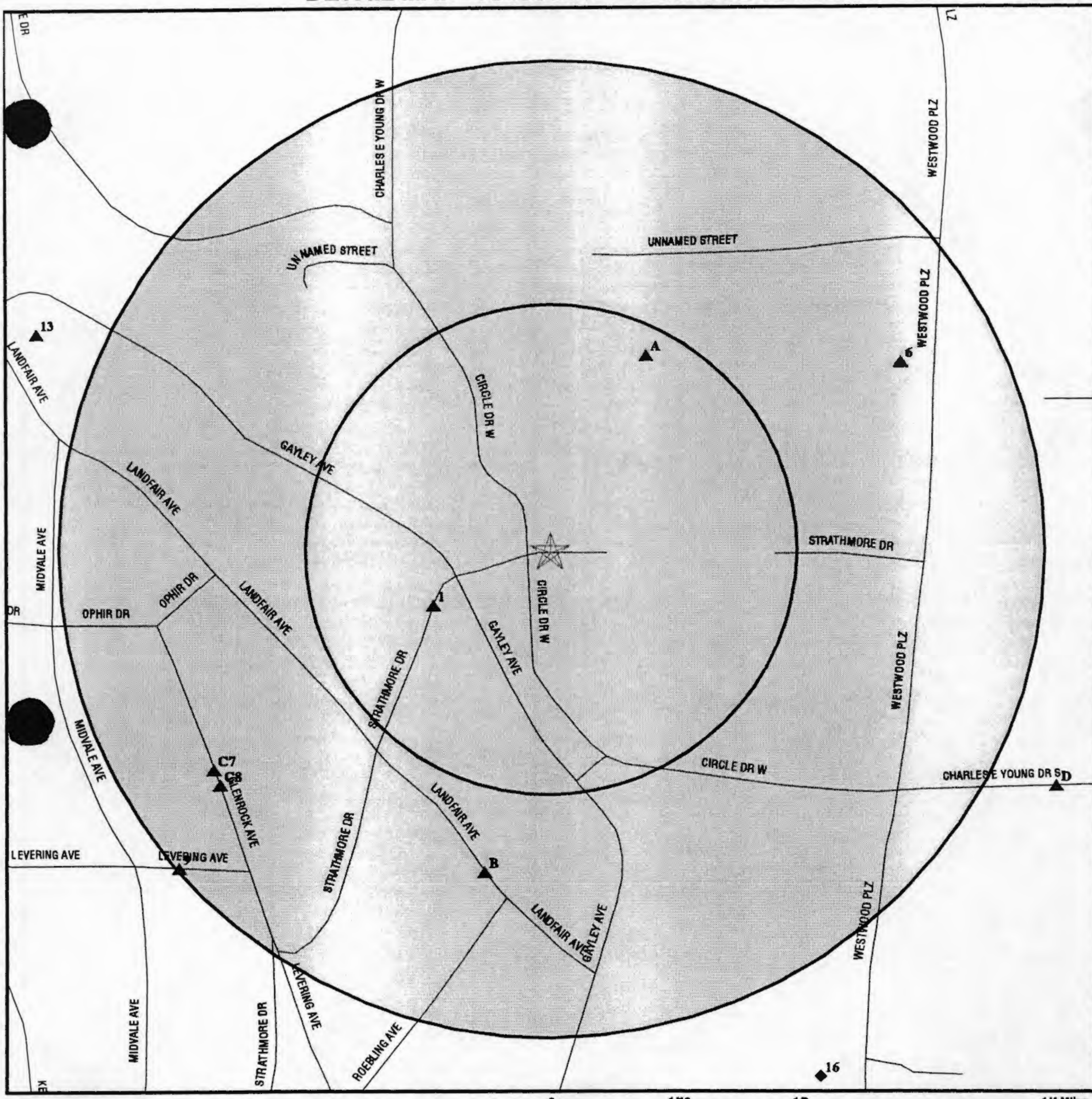
Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
WARREN PONTIAC	***400 S SEPULVEDA BLVD***	***1/2 - 1***	***W***	***191***	***121***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
ORGANICLEAN	FINDS, FTTS
UNOCAL #5275	LUST
REGENTS OF THE UNIV. OF CA.	UST
VETERANS ADMINISTRATION	UST
VETERAN ADMINISTRATION	UST
VETERAN AFFAIRS	UST
VETERANS ADMINISTRATION	UST
1X CAL-VEST REALTY	HAZNET
MARK A COLLONS DDS, INC	HAZNET
BARBARA COPELAND	HAZNET
EMMANUEL LUBEZKI	HAZNET
ROY A MEALS MD INC	HAZNET
UNIVERSITY CARDIOVASCULAR	HAZNET
UNIVERSITY SPINE ASSOCIATES	HAZNET
PERRY WONG DDS	HAZNET
VETERAN ADMIN BLDG	HAZNET
OCCIDENTAL PETROLEUM CORP	HAZNET
LABEX CORPORATION	HAZNET
BEACON PROPERTY LP	HAZNET
DONALD J ESLICK DDS	HAZNET
DR DENISE GALANTER DDS	HAZNET
SUSAN GORAN DDS	HAZNET
WEST WOOD PEDIATRIC DENTAL GROUP	HAZNET
THE WESTWOOD MEDICAL PLAZA LP	HAZNET
L B PROPERTY MANAGEMENT	HAZNET
PICK FAMILY TRUST C/O LB PROPERTY	HAZNET
WILSHIRE HOLMBY	HAZNET
MIRABELLA CONDOMINIUMS	HAZNET
DONN AND MURPHY AREA STORAGE AREA	ERNS

DETAIL MAP - 734861.1s - EIP Associates



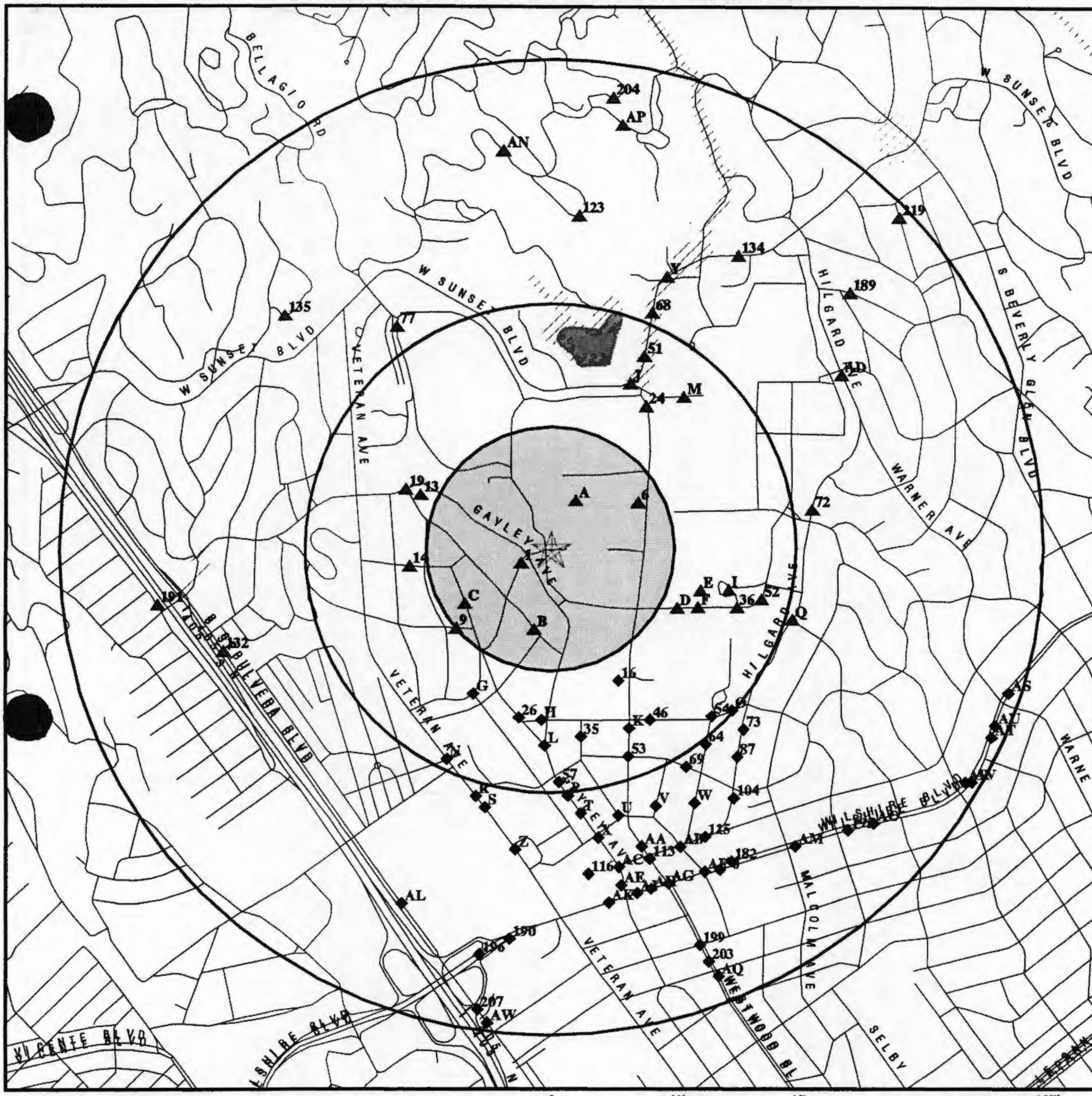
★ Target Property
▲ Sites at elevations higher than or equal to the target property
◆ Sites at elevations lower than the target property
Coal Gasification Sites
Sensitive Receptors
National Priority List Sites
Landfill Sites

Power transmission lines
Oil & Gas pipelines
100-year flood zone
500-year flood zone

Areas of Concern

TARGET PROPERTY:	UCLA	CUSTOMER:	EIP Associates
ADDRESS:	UCLA	CONTACT:	Neil Brower
CITY/STATE/ZIP:	Los Angeles CA 90024	INQUIRY #:	734861.1s
LAT/LONG:	34.0688 / 118.4482	DATE:	February 13, 2002 7:15 pm

OVERVIEW MAP - 734861.1s - EIP Associates



★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

▲ Coal Gasification Sites

National Priority List Sites

Landfill Sites

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

Wetlands

Areas of Concern

TARGET PROPERTY:	UCLA	CUSTOMER:	EIP Associates
ADDRESS:	UCLA	CONTACT:	Neil Brower
CITY/STATE/ZIP:	Los Angeles CA 90024	INQUIRY #:	734861.1s
LAT/LONG:	34.0688 / 118.4482	DATE:	February 13, 2002 7:13 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		1.000	0	0	0	1	NR	1
CORRACTS		1.000	0	0	0	0	NR	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		1.000	0	0	0	1	NR	1
RCRIS Sm. Quan. Gen.		1.000	2	0	1	10	NR	13
ERNS		1.000	0	0	2	2	NR	4
STATE ASTM STANDARD								
AWP		1.000	0	0	0	0	NR	0
Cal-Sites		1.000	0	0	0	1	NR	1
CHMIRS		1.000	0	1	0	0	NR	1
Cortese		1.000	0	0	3	6	NR	9
Notify 65		1.000	0	0	0	0	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
State Landfill		1.000	0	0	0	0	NR	0
WMUDS/SWAT		1.000	0	0	0	0	NR	0
LUST		1.000	0	0	4	8	NR	12
CA Bond Exp. Plan		1.000	0	0	0	0	NR	0
UST		1.000	0	0	8	19	NR	27
CA FID UST		1.000	0	0	10	29	NR	39
HIST UST		1.000	0	0	7	15	NR	22
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		1.000	2	0	2	15	NR	19
HMIRS		1.000	0	0	0	0	NR	0
MLTS		1.000	0	0	1	2	NR	3
MINES		1.000	0	0	0	0	NR	0
NPL Liens		1.000	0	0	0	0	NR	0
PADS		1.000	0	0	0	0	NR	0
RAATS		1.000	0	0	0	0	NR	0
TRIS		1.000	0	0	0	0	NR	0
TSCA		1.000	0	0	0	0	NR	0
FTTS		1.000	0	0	0	2	NR	2
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		1.000	0	0	0	0	NR	0
CLEANERS		1.000	0	0	0	1	NR	1

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA WDS		1.000	0	0	0	2	NR	2
CA SLIC		1.000	0	0	0	0	NR	0
HAZNET		1.000	1	5	19	85	NR	110
Los Angeles Co. HMS		1.000	0	0	0	1	NR	1
LA Co. Site Mitigation		1.000	0	0	0	0	NR	0
AOCONCERN		1.000	0	0	0	0	NR	0
EDR PROPRIETARY HISTORICAL DATABASES								
Coal Gas		1.000	0	0	0	0	NR	0

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

Appendix 10 Supplementary Utilities Information

Department of Water and Power the City of Los Angeles

JAMES K. HAHN
Mayor

DAVID H. WIGGS, *General Manager*
FRANK SALAS, *Chief Operating Officer*

BY:

July 31, 2002

Ms. Terri Vitar
EIP Associates
12301 Wilshire Boulevard, Suite 430
Los Angeles, California 90025

Dear Ms. Vitar:

Subject: Water Availability Assessment Transmittal

Please find enclosed the Water Availability Assessment and Los Angeles Department of Water and Power Board of Commissioners Resolution for the University of California, Los Angeles 2002 Long Range Development Plan.

If you have any questions regarding the enclosures, please do not hesitate to give me a call at (213) 367-0800.

Sincerely,

Alvin Z. Bautista

Alvin Z. Bautista
Water Resources Planning and Policy Group

Enclosure

LOS ANGELES DEPARTMENT OF WATER AND POWER

WATER AVAILABILITY ASSESSMENT FOR THE UNIVERSITY OF CALIFORNIA, LOS ANGELES 2002 LONG RANGE DEVELOPMENT PLAN

The Los Angeles Department of Water and Power (LADWP) has prepared this water availability assessment for the proposed University of California, Los Angeles 2002 Long Range Development Plan (Project). The University of California, Los Angeles is serving as the Lead Agency for the Project, which entails the redevelopment of up to 1.87 million square feet of mixed-use facilities, including academic and administrative offices, laboratories, and facilities for student housing, research, recreation, and child care. The water availability assessment was made pursuant to California Water Code Sections 10910-10915.

LADWP anticipates that it can provide sufficient domestic water supply to accommodate the development and growth associated with the Project. The projected water demand of the Project is within the 20-year water demand growth projected in the City of Los Angeles' (City) Year 2000 Urban Water Management Plan (Water Plan) update. The water availability information used to develop this assessment is based on data provided in the City's Water Plan, which provides a projection of the City's 20-year water supply and demand outlook. The Water Plan, which was adopted by the LADWP Board of Commissioners, is updated every five years with the next update due by December 31, 2005.

LADWP anticipates that its projected water supplies available during normal, single-dry, and multiple-dry water years as included in the 20-year projection contained in its Water Plan will meet the projected water demand associated with the Project, in addition to the existing and other planned future uses of LADWP's system.

It is anticipated that LADWP will be capable of meeting the demand associated with full implementation of the Project.

002 328

RESOLUTION NO. ______

WHEREAS, in May 2002 the University of California, Los Angeles, acting as Lead Agency for the University of California, Los Angeles 2002 Long Range Development Plan (Project), requested the Los Angeles Department of Water and Power (LADWP) provide a water supply availability assessment for the proposed Project pursuant to California Water Code Sections 10910-10915; and

WHEREAS, LADWP's water supply system now serves the immediate Project area, and would serve the area of the proposed Project redevelopment; and

WHEREAS, the projected water demand associated with the Project is within the range of water demand projections anticipated in the City of Los Angeles' Year 2000 Urban Water Management Plan update; and

WHEREAS, LADWP anticipates that its projected water supplies available during normal, single-dry, and multiple-dry water years as included in the 20-year projection contained in its Urban Water Management Plan can accommodate the projected water demand associated with the Project, in addition to the existing and other planned future uses of LADWP's system; and

WHEREAS, LADWP has prepared a water availability assessment for the Project as required by California Water Code Sections 10910-10915, which finds that LADWP can provide sufficient domestic water supplies for the development and growth as defined by the Project; and

NOW, THEREFORE, BE IT RESOLVED, that the LADWP Board of Water and Power Commissioners hereby approves the water availability assessment prepared for the Project, now on file with the Secretary of the Board, and directs that the assessment and a certified copy of this resolution be transmitted to the University of California, Los Angeles, the Project Lead Agency.

I HEREBY CERTIFY that the foregoing is a full, true, and correct copy of a resolution adopted by the Board of Water and Power Commissioners of the City of Los Angeles at its meeting held JUL 0 2 2002

APPROVED AS TO FORM AND LEGALITY
ROCKARD J. DELGADILLO, CITY ATTORNEY

JUN 1 1 2002

BY EDWARD A. SCHLOTMAN
Assistant City Attorney

Secretary

SUPPLEMENTARY WATER SUPPLY ANALYSIS

The 2002 LRDP proposes to extend the planning horizon for development under the 1990 LRDP from 2005 to 2010. Under the 1990 LRDP, 3.71 million gross square feet of development was to occur between 1990 and 2005. 1.7 million gross square feet remains to be built. The 2002 LRDP proposes to extend the horizon date for the remaining 1990 LRDP development allocation from 2005 to 2010. The 2002 LRDP also proposes the addition of 4,000 full time equivalent students to the campus.

This analysis will summarize the Los Angeles Department of Water and Power ("DWP") water supplies which will meet the projected water demands of the proposed growth, as well as other issues related to the ability of DWP to meet the future demands of the 2002 LRDP and of the City of Los Angeles as a whole. Data used for this analysis was obtained from the 2000 DWP Urban Water Management Plan ("UWMP") and other sources, as indicated.

I. Supply and Demand Analysis

Establishing the baseline water demand for this EIR involves taking into account current usage and projected usage from projects that are either under construction, approved, or certified (i.e., project that have obtained environmental clearance with regard to CEQA). Currently, the UCLA campus uses 2733 acre feet (AF) of water per year. This figure was arrived at by calculating the ratio of existing gross square footage on campus to quantity of water used. The gross square footage of development either under construction, approved, or considered in a certified EIR was then used in conjunction with the above ratio to find the projected water demand of that development, which is projected to be 296 AF per year. Thus, the baseline of water demand for this EIR is 3029 AF (2733 AF + 296 AF) per year. Water demand resulting from implementation of the 2002 LRDP was calculated in the same way, yielding 336 AF per year in new demand. Overall, total campus water demand after full implementation of the 2002 LRDP would be 3365 AF per year. See Table 1.

Table 1: EXISTING AND PROJECTED (2002 LRDP) WATER DEMAND	Total Development (gsf)	Total Water Consumed (AF/year)
2001-02 Existing Baseline (actual)	13,881,695	2734
Under Construction, Approved, and/or considered in a Certified EIR (estimated)	1,505,435	296
Subtotal: Existing Conditions	15,387,130	3030
2002 LRDP (estimated)	**1,706,465**	**336**
TOTAL WATER DEMAND	17, 093,595	3365

The demands of the 2002 LRDP, outlined above, were taken into account in the demand projections used in the 2000 UWMP. Although the UWMP did not list individual planned future projects included within its water demand projections, population growth projections contained in the 1998 Regional Transportation Plan Adopted Forecast ("1998 RTP"), created 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, the demands of the 2002 LRDP have been accounted for in the demand projections of the 2000 UWMP.

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. 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%, or 1.2% 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%, or 1.0% 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% a year. *See 2000 DWP UWMP*, at page 20.

Through implementation of the 2002 LRDP, UCLA campus population growth is expected to occur at a rate lower than the general growth rates for both Westwood and the entire City, which were used to determine water demands in the 2000 UWMP. Growth between 1990 and 2010 under the original LRDP was projected to be 12%, or 0.6 % per year. As the LRDP Update does not propose any new development beyond that proposed in the 1990 LRDP, the 2002 LRDP will still involve growth at a rate lower than that of the City and of Westwood. Consequently, the 2000 UWMP water demand projections accommodate the demands of the 2002 LRDP, and data from that document demonstrates the sufficiency of future water supplies to meet 2002 LRDP water demands.

As mentioned before, the demand projections used in the 2000 UWMP were generated by using growth projections. The demand projections were also obtained by taking into account the effect of increased conservation within the City. The DWP plans on implementing, or continuing implementation of, several conservation measures, such as requiring the use of ultra-low flush toilets, high efficiency washing machines, low-flow showerheads, and establishing a large landscape efficiency program. The demand savings from conservation are projected to increase by 5% every year, with 87,350 AF saved in 2020.

The supply data used in the following supply-demand analysis consists of the composite projections of water production from existing or planned water sources. The Los Angeles Aqueduct ("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 DWP, 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. Between 1989 and 2000, the LAA produced an average of 295,500 acre feet per year, with a low of 106,700 acre feet in 1990, and a high of 466,800 acre feet in 1998. *2000 DWP UWMP*, at page 33.

In addition, local wells 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 have produced on average 92,400 AF per year, in the period from 1990 to 2000. 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 Metropolitan Water District ("MWD") is also a major supplier of City water supplies from the Colorado River and the State Water Project. The MWD's *Report on Metropolitan's Water Supplies* (Feb. 11, 2002) shows that MWD projects it will be able to supply all of its constituent agencies' demands and also maintain a margin of error for extra security. MWD indicates in the above Report that it can accommodate the dry year needs of its users and still maintain a surplus, or margin of safety, of supply.

DWP 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 service all projected growth between 2000 and 2010, including the 2002 LRDP. The supplies will be adequate in both normal and dry years. See Tables 2 and 3.

TABLE 2: NORMAL YEAR PROJECTED SUPPLY/DEMAND ANALYSIS[1]				
Supply Source	**2005**	**2010**	**2015**	**2020**
Los Angeles Aqueduct	321,000	321,000	321,000	321,000
Local Wells[2]	123,000	133,000	143,000	150,000
Metropolitan Water District	227,350	245,600	269,350	298,650
Recycled Water[3]	7,650	18,400	23,650	29,350
Total Supply	**679,000**	**718,000**	**757,000**	**799,000**
Demand Source	**2005**	**2010**	**2015**	**2020**
Single Family	234,000	240,000	249,000	260,000
Multi-Family	216,000	240,000	260,000	283,000
Commercial	121,000	124,000	128,000	131,000
Industrial	26,000	27,000	28,000	30,000
Governmental	42,000	44,000	45,000	47,000
Unaccounted Water	40,000	43,000	46,000	49,000
Total Demands	**679,000**	**718,000**	**756,000**	**800,000**

[1] Table and data obtained from *2000 DWP UWMP*, pages 22 and 43.
[2] Includes increase in production due to groundwater recharge.
[3] Recycled water will be used for irrigation and industrial use.

TABLE 3: DRY YEAR PROJECTED SUPPLY/DEMAND ANALYSIS[1]				
Supply Source	**2005**	**2010**	**2015**	**2020**
Los Angeles Aqueduct	160,000	160,000	160,000	160,000
Local Wells[2]	150,000	160,000	170,000	180,000
Metropolitan Water District[3]	402,350	422,600	448,350	477,650
Recycled Water[4]	7,650	18,400	23,650	29,350
Total Supply	**720,000**	**761,000**	**802,000**	**847,000**
Total Demands[5]	**719,740**	**761,080**	**801,360**	**848,000**

[1] Table and data obtained from *2000 DWP UWMP*, pages 22 and 43.

[2] Includes increase in production due to groundwater recharge, and also includes increase due to utilization in dry years of San Fernando Basin storage credits.

[3] MWD deliveries are expected to be increased in single-dry years as compared to normal years. MWD documentation shows that it is able to accommodate all of the increased demands of its constituent agencies during single-dry years and nevertheless maintain a 7% to 24% margin of safety in supplies above projected demand levels. *See Report on Metropolitan's Water Supplies* (Feb. 11, 2002): Findings, pg. 14; Summary Supply and Demand Tables, pg. 16.

[4] Recycled water will be used for irrigation and industrial use.

[5] Dry year demand shown reflects 6% increase from normal year demand.

The DWP arrived at projections for dry year demands by assuming that water needs will increase by six percent over normal year demands. DWP supported this assumption by noting that actual water usage could be expected to vary from normal year levels plus or minus six percent, based upon varying weather conditions. Increasing normal year demands by six percent therefore represents the water usage in a "dry" year. Discrepancies between "Total Supply" and "Total Demands" listed above are not significant, in that the largest of them represents only one tenth of one percent of the total demands for that year (i.e., the 2020 projection).

All sources of water that DWP plans on utilizing to meet water demands until 2020 have been utilized in prior years. The only source which has not been utilized recently is the West Coast Groundwater Basin. The DWP has not produced any water from the West Coast Basin previously because of water contamination. Because of problems with the water quality of this basin, the DWP did not project any future production from the West Coast Basin in the 2000 UWMP.

II. Groundwater Sources to be Used to Meet Future Project Demands

The 2000 UWMP stated that DWP had 64 active wells which delivered approximately 15 percent of the total water supply needed by the City, with deliveries from local groundwater wells having averaged 92,400 acre feet per year for the previous ten years. The City possessed rights to pump groundwater from four local basins: the San Fernando, Sylmar, Central, and

West Coast Basins. On the average, the San Fernando Basin ("SFB") was responsible for 80% of the groundwater extracted by the DWP, while 15% of DWP groundwater was from the Central Basin and 5% from the Sylmar Basin. No groundwater was pumped from the West Coast Basin due to poor water quality (although DWP does receive fees from other parties that do extract water from the West Coast Basin). Table 4 shows the amount of water DWP is entitled to receive each year from each basin.

TABLE 4: DWP GROUNDWATER ENTITLEMENTS

Groundwater Basin	Amount DWP may Pump per Year
San Fernando Basin	90,000 acre feet
Sylmar Basin	3,100 acre feet
Central Basin	15,000 acre feet
West Coast Basin	1,500 acre feet
TOTAL GROUNDWATER ENTITLEMENTS	**109,600 acre feet**

In addition to the DWP annual 90,000 acre feet allotment, the San Fernando Basin also holds a water reserve totaling 255,000 acre feet as of October 1999. DWP has a right to pump water from this reserve. That right is characterized in the UWMP as a form of "water supply insurance" to be used in case of temporary interruption of water imports or in case of a drought that reduces production from the LAA.

The 2000 DWP UWMP also stated that the DWP plans to maximize production from groundwater basins in the future in order to counter reductions in imported water supplies. In connection with this, the DWP anticipates making significant investments in water quality measures for groundwater.

A major component of DWP planning for groundwater described in the 2000 UWMP is the implementation of conjunctive use. Conjunctive use will involve the restriction of groundwater usage during wet years so that water may be stored in the underground basins for use in future dry years. When dry years occur, the City will have accumulated significant storage credits under the adjudication judgment for the SFB (see below). The City will then utilize its maximum yearly allotment and also draw upon its storage credits in order to compensate for lower LAA and MWD deliveries during dry years.

Necessary to the programs of groundwater recharge and conjunctive use are DWP plans to address groundwater contamination problems in the SFB. Trace levels of trichloroethylene and perchloroethylene were detected in the SFB in 1979, and more recently SFB groundwater has been found to contain hexavalent chromium. In the UWMP, the DWP outlines plans to pursue monitoring programs and to develop and construct water treatment facilities in order to ensure the water quality of SFB water. Other programs, such as requiring mandatory sewer system connections for all industrial and commercial properties in the San Fernando Valley, are also being prepared.

A. San Fernando Basin

1. Pueblo Right.

The San Fernando Basin was adjudicated by the Superior Court decision *City of Los Angeles v. City of San Fernando et al.* Under the decree in that case, the City of Los Angeles was ruled to have a prior and paramount "pueblo right" (a right to native waters granted by the King of Spain to pueblos, for the use of their inhabitants) to the native waters of the upper Los Angeles River and to the native ground waters of the San Fernando Basin (i.e., the waters of the San Fernando Basin which are attributable to precipitation). As a prior and paramount right, no entity other than the City has an interest in native SFB water. Under the judgment, each year the City may consequently extract from its pueblo right the native safe yield of the SFB (that portion of the safe yield attributable to native flows).

2. Rights to import return water.

The SFB also consists of water that does not originate from natural precipitation, but rather from "import return water," which is water that has been brought into the area and has percolated into the basin. An example of this would be LAA water or MWD water. The Los Angeles pueblo right does not extend to import return water, and thus the City must share this portion of the waters of the SFB with the Cities of Glendale, Burbank, and San Fernando. Under the court judgment, each city is entitled to extract the portion of the safe yield of the basin attributable to its import return. For the City of Los Angeles, the amount of import return for a year is equal to 20.8% of the amount of import water delivered to "valley fill lands of the San Fernando Basin" (i.e., areas where water will percolate into the SFB).

3. Right to Water from Storage Credit.

Additionally, each city has a right to store water in the SFB by either direct spreading (whereby the city receives a storage credit for the amount of water it directly inputs into the basin) or by in lieu practices (whereby the city refrains from extracting the maximum amount of water it is entitled to and receives a storage credit in return for that amount). This right allows the City to extract an equivalent amount in the future (i.e., 100% of stored water is extractable in the future), and the right is allowed to carryover and accumulate from year to year. According to the DWP, as of October 1999 the City of Los Angeles had a stored water credit of 255,000 acre feet in the SFB. The DWP plans to utilize this stored water during long-term shortages or other emergencies in order to supplement the normal SFB groundwater production by the City.

4. Right to Underlying Pueblo Water.

The City of Los Angeles also has the right to draw up its right to underlying pueblo waters, with the obligation of replacing the water as soon as practical. The underlying pueblo waters consist of the native water of the SFB which ordinarily is left in the basin and not part of the native safe yield which Los Angeles pumps every year. In essence, it is in the base water table of the basin. This right would only be utilized in times of extreme short-term shortages.

B. Sylmar Basin

Rights to the Sylmar Basin were also adjudicated in the case of *City of Los Angeles v. City of San Fernando, et al.* The Cities of San Fernando and Los Angeles possess appropriative rights, of equal priority, to the native waters of the Sylmar Basin not used for the reasonable beneficial needs of the overlying users. The court quantified these appropriative rights as consisting of 3,580 acre feet per year for the City of San Fernando, and 1,560 acre feet per year for the City of Los Angeles.

Both the City of San Fernando and City of Los Angeles have import return water rights in the Sylmar Basin, equal to 35.7% of amount of water imported into the basin the preceding year. There is a corresponding right to store water similar to that possessed with reference to the SFB (i.e., right to storage credit for in lieu practices and unused import return water rights). Unlike the SFB, however, water storage credits may only be carried over for five years.

The City is entitled to extract 3,100 acre feet of water per year from the Sylmar Basin. This number apparently represents the City of Los Angeles' appropriative right, plus its right to import return water.

C. Central Basin

The Central Basin was adjudicated in the case of *Central and West Basin Water Replenishment District v. Adams, et al.* Under the judgment in this case, which was originally handed down in 1962 with the most recent revision made in 1991, the California Department of Water Resources serves as the Watermaster for the Central Basin.

With regard to the City of Los Angeles, the court ruled that the City will be allowed to pump 15,000 acre feet of water per year (its "Allowed Pumping Allocation"). There are several situations through which this amount may fluctuate. First, the judgment allows for a one year carryover of groundwater that is not pumped. In the case of Los Angeles the amount of this carryover may not exceed 3,000 acre feet. In a situation where the full amount was carried over, the City would be able to pump 18,000 acre feet of water the next year.

Second, in times where a Water Emergency has been declared by the Central and West Basin Water Replenishment District, an additional amount of water may be carried over above that allowed by the one year carryover. This additional drought carryover is not to exceed, in the case of Los Angeles, 5,250 acre feet of water. Thus, in times of a Water Emergency, the City may carryover a combined total of 8,250 acre feet, and thereby pump a total of 23,250 acre feet of water the next year.

D. Analysis of Sufficiency of Groundwater from Basins to Meet Project Water Demand

The San Fernando, Sylmar, and Central Basins were all projected to be utilized in order to meet the future needs of the City of Los Angeles, including the UCLA 2002 LRDP, as previously discussed. Reference to the supply and demand analysis (see Section I., *supra*) shows that as a whole the water supplies of the City of Los Angeles will be sufficient to meet the water demands of the City of Los Angeles over the next twenty years. This would include the projected water demand for the UCLA 2002 LRDP through the year 2010. The water supply levels assigned to the groundwater wells in the "normal year" analysis represent the maximum yield that may be obtained annually under current rights (exclusive of the right to DWP San Fernando Basin storage credits), plus 100% of the amount of water recharged into the SFB. See Table 5.

TABLE 5: BREAKDOWN OF FUTURE GROUNDWATER EXTRACTION (Normal Year)

	2005	2010	2015	2020
Annual Total Groundwater Allotment	108,100	108,100	108,100	108,100
Amount of Water Recharged to Basins	15,000	25,000	35,000	45,000
Total Groundwater Production Projected	**123,000**	**133,000**	**143,000**	**150,000**

In addition, the Annual Total Groundwater Allotment for DWP, which is approximately 109,600 acre feet per year (the total for all basins), does not represent a level of production that will result in a reduction in the groundwater levels of the relevant basins. Rather, this level of production represents the safe yield of the basins, and adherence to it will preserve the integrity of these basins. Consequently, the levels of groundwater production proposed by the DWP are self-sustaining and, in combination with other sources, will be sufficient to meet the needs of the City, including the UCLA 2002 LRDP.

Line B

SEWER AVAILABILITY

Date: 7/18/02

1. Name of Land Owner/ Lead Agency: University of California at Los Angeles
   Tova Lelah
   Tel No. (310) 206-5482
   Fax No. (310) 206-1510

2. Location/Job Address: 405 S. Hilgard Ave.
   Los Angeles, CA 90095

3. Building Permit Application No.: ____________

4. Proposed Sewer Connection Location: Within Hilgard Ave.

5. SIMMS MH Number
   From: Downstream 49113104 To: Upstream of 49113067
   From: ____________ To: ____________
   From: ____________ To: ____________

6. Sewer Map No. 491 Wye Map No. ____________

7. Size of Main Sewer Line in the Street: 8" end of it start of 15"

8. Type of Building Use: Office, Lab and Machine Shop

9. Project Description (i.e. No. of Dwelling Units, Gross Sq. Ft. and Use.....etc.)
   Addition of a 117,000 gsf Office, Addition of 210,380 gsf of Lab Space, Expansion of 1,300 gsf of Machine Shop.

10. Proposed Estimated Sewer Flow (New Construction): 65,476 (GPD) or ________ (CFS)
    Total Net Additional Sewer Flow(Remodel/Replacement): 130 (GPD) or ________ (CFS)

11. Sewer Availability: [✓] Capacity Available
    [ ] Capacity Not Available See Remarks

12. Remarks: An increase of 5% to the 15" sewer line. of downstream MH 519-01-017 d/D is 0.18 (18%)

Requested By: Mike Kantor
Development Services Division
Bureau of Engineering
(213) 977-6032
(213) 977-6050 Fax

Sewer Availability
Checked By:
Name: [signature] 8/29/02
Bureau of Sanitation
(213) 473-8211 Fax (213) 473-8222

Line C

SEWER AVAILABILITY

Date: 7/18/02

1. **Name of Land Owner/ Lead Agency:** University of California at Los Angeles
   Tova Lelah
   Tel No. (310) 206-5482
   Fax No. (310) 206-1510
2. **Location/Job Address:** 405 S. Hilgard Ave.
   Los Angeles, CA 90095
3. **Building Permit Application No.:**
4. **Proposed Sewer Connection Location:** Intersection of Westholme Ave. & Hilgard Ave.
5. **SIMMS MH Number** From: Downstream 491/3161 To: Upstream of 49113007
   From: To:
   From: To:
6. **Sewer Map No.** 491 **Wye Map No.**
7. **Size of Main Sewer Line in the Street:** 8"
8. **Type of Building Use:** Office
9. **Project Description (i.e. No. of Dwelling Units, Gross Sq. Ft. and Use.....etc.)**
   Expansion of Public Policy Office Building by 30,000 gsf.
10. **Proposed Estimated Sewer Flow (New Construction):** ____ (GPD) or ____ (CFS)
    Total Net Additional Sewer Flow(Remodel/Replacement): 6,000 (GPD) or ____ (CFS)
11. **Sewer Availability:** [✓] Capacity Available
    [ ] Capacity Not Available See Remarks
12. **Remarks:**

Requested By: Mike Kantor
Development Services Division
Bureau of Engineering
(213) 977-6032
(213) 977-6050 Fax

Sewer Availability Checked By:
Name: Belen Tamismi 8/29/02
Bureau of Sanitation
(213) 473-8211 Fax (213) 473-8222

SEWER AVAILABILITY

Date: 7/18/02

1. **Name of Land Owner/ Lead Agency:** University of California at Los Angeles
   Tova Lelah
   Tel No. (310) 206-5482
   Fax No. (310) 206-1510

2. **Location/Job Address:** 405 S. Hilgard Ave.
   Los Angeles, CA 90095

3. **Building Permit Application No.:** ______

4. **Proposed Sewer Connection Location:** Intersection of Gayley Ave.andCharles Young Dr.

5. **SIMMS MH Number** From: Downstream 490 16 089 To: Upstream of 49016090
   From: ______ To: ______
   From: ______ To: ______

6. **Sewer Map No.** 490 **Wye Map No.** ______

7. **Size of Main Sewer Line in the Street:** 21" (18" Sewer line)

8. **Type of Building Use:** Office, Lab and Machine Shop, Library, Gymnasium and Hospital

9. **Project Description (i.e. No. of Dwelling Units, Gross Sq. Ft. and Use.....etc.)**
   Expansion of 121,600 gsf Office, Addition of 140,513 gsf Office, Addition of 491,000 gsf of Lab Space, Addition of 5,000 gsf of Machine Shop, Addition of 70,000 of Library, Addition of 16,512 gsf of Gymnasium, Addition of 1,045,000 gsf of Hospital

10. **Proposed Estimated Sewer Flow (New Construction):** 447,857 (GPD) or ______ (CFS)
    Total Net Additional Sewer Flow(Remodel/Replacement): 24,320 (GPD) or ______ (CFS)

11. **Sewer Availability:** [X] Capacity Available
    [ ] Capacity Not Available See Remarks

12. **Remarks:** 15% increase

Requested By: Mike Kantor
Development Services Division
Bureau of Engineering
(213) 977-6032
(213) 977-6050 Fax

Sewer Availability Checked By:
Name: Bela Tamimi 9/04/02
Bureau of Sanitation
(213) 473-8211 Fax (213) 473-8222

SEWER AVAILABILITY

Date: 7/18/02

1. **Name of Land Owner/ Lead Agency:** University of California at Los Angeles
   Tova Lelah
   Tel No. (310) 206-5482
   Fax No. (310) 206-1510

2. **Location/Job Address:** 405 S. Hilgard Ave.
   Los Angeles, CA 90095

3. **Building Permit Application No.:** ______

4. **Proposed Sewer Connection Location:** Within Gayley Ave.

5. **SIMMS MH Number** From: Downstream 49016087 To: Upstream of 49016058
   From: ______ To: ______
   From: ______ To: ______

6. **Sewer Map No.** 490 **Wye Map No.** ______

7. **Size of Main Sewer Line in the Street:** 8" 12" for 490-16-058

8. **Type of Building Use:** Restaurant, Gymnasium and Storage

9. **Project Description (i.e. No. of Dwelling Units, Gross Sq. Ft. and Use.....etc.)**
   Addition of 33,325 gsf of Gymnasium, Addition of3,600 gsf of Storage Space, Addition of 5,000 gsf of Restaurant

10. **Proposed Estimated Sewer Flow (New Construction):** 11,588 (GPD) or ______ (CFS)
    Total Net Additional Sewer Flow(Remodel/Replacement): ______ (GPD) or ______ (CFS)

11. **Sewer Availability:** [✓] Capacity Available
    [ ] Capacity Not Available See Remarks

12. **Remarks:** 12" sewer line on the 490-16-058. The 8" is west of P. location.

Requested By: Mike Kantor
Development Services Division
Bureau of Engineering
(213) 977-6032
(213) 977-6050 Fax

Sewer Availability Checked By:
Name: B. Tamimi 8/29/02
Bureau of Sanitation
(213) 473-8211 Fax (213) 473-8222

Line L/M

SEWER AVAILABILITY

Date: 7/18/02

1. Name of Land Owner/ Lead Agency: University of California at Los Angeles

   Tova Lelah

   Tel No. (310) 206-5482

   Fax No. (310) 206-1510

2. Location/Job Address: 405 S. Hilgard Ave.

   Los Angeles, CA 90095

3. Building Permit Application No.: ______

4. Proposed Sewer Connection Location: Within Veteran Ave.

5. SIMMS MH Number From: ______ To: Upstream of 52004043

   From: ______ To: ______

   From: ______ To: ______

6. Sewer Map No. 520 Wye Map No. ______

7. Size of Main Sewer Line in the Street: 12"

8. Type of Building Use: Apartments (1BR), Apartments (2BR), Laboratory, Office

9. Project Description (i.e. No. of Dwelling Units, Gross Sq. Ft. and Use.....etc.)
   Addition of 954 (du) Apartments (1BR), Addition of 523(du) Apartments (2BR), Addition of 100,000 gsf of Office.

10. Proposed Estimated Sewer Flow (New Construction): 255,160 (GPD) or ______ (CFS)

    Total Net Additional Sewer Flow(Remodel/Replacement): ______ (GPD) or ______ (CFS)

11. Sewer Availability: [X] Capacity Available
    [ ] Capacity Not Available See Remarks

12. Remarks: 23% increase

Requested By: Mike Karton
Development Services Division
Bureau of Engineering
(213) 977-6032
(213) 977-6050 Fax

Sewer Availability
Checked By:

Name: Nelson Sarti 9/4/02
Bureau of Sanitation
(213) 473-8211 Fax (213) 473-8222

SEWER AVAILABILITY

Date: 7/18/02

1. Name of Land Owner/ Lead Agency: University of California at Los Angeles
   Tova Lelah
   Tel No. (310) 206-5482
   Fax No. (310) 206-1510

2. Location/Job Address: 405 S. Hilgard Ave.
   Los Angeles, CA 90095

3. Building Permit Application No.: ______

4. Proposed Sewer Connection Location: Intersection of Le Conte Ave. & Broxton Ave.

5. SIMMS MH Number
   From: Downstream 49016140 To: Upstream of 49016140
   From: ______ To: ______
   From: ______ To: ______

6. Sewer Map No. 490 Wye Map No. ______

7. Size of Main Sewer Line in the Street: 8"

8. Type of Building Use: Clinical Lab

9. Project Description (i.e. No. of Dwelling Units, Gross Sq. Ft. and Use.....etc.)
   Addition of 175,000 gsf of Clinical Lab space

10. Proposed Estimated Sewer Flow (New Construction): 35,000 (GPD) or ______ (CFS)
    Total Net Additional Sewer Flow(Remodel/Replacement): ______ (GPD) or ______ (CFS)

11. Sewer Availability: [✓] Capacity Available
    [ ] Capacity Not Available See Remarks

12. Remarks: Along 11% increase to flow. However one block away flow to 12", 15" then to 39" line

Requested By: Mike Kantor
Development Services Division
Bureau of Engineering
(213) 977-6032
(213) 977-6050 Fax

Sewer Availability
Checked By:

Name: [signature] Tanimi 8/29/02
Bureau of Sanitation
(213) 473-8211 Fax (213) 473-8222

SEWER AVAILABILITY

Date: 7/18/02

1. **Name of Land Owner/ Lead Agency:** University of California at Los Angeles
   Tova Lelab
   Tel No. (310) 206-5482
   Fax No. (310) 206-1510

2. **Location/Job Address:** 405 S. Hilgard Ave.
   Los Angeles, CA 90095

3. **Building Permit Application No.:**

4. **Proposed Sewer Connection Location:** Intersection of Strathmore Ave. Gayley Ave.

5. **SIMMS MH Number** **From:** Downstream 490-16-052 **To:** Upstream of 49016032
   From: **To:**
   From: **To:**

6. **Sewer Map No.** 490 **Wye Map No.**

7. **Size of Main Sewer Line in the Street:** 12"

8. **Type of Building Use:** Dormitory

9. **Project Description (i.e. No. of Dwelling Units, Gross Sq. Ft. and Use.....etc.)**
   Addition of 2,000 beds of Dormitory space

10. **Proposed Estimated Sewer Flow (New Construction):** 150,000 **(GPD) or** **(CFS)**
    Total Net Additional Sewer Flow(Remodel/Replacement): **(GPD) or** **(CFS)**

11. **Sewer Availability:** [X] **Capacity Available**
    [ ] **Capacity Not Available See Remarks**

12. **Remarks:** 12" increase

Requested By: Mike Kanter
Development Services Division
Bureau of Engineering
(213) 977-6032
(213) 977-6050 Fax

Sewer Availability Checked By:
Name: Belal Tamimi 9/4/02
Bureau of Sanitation
(213) 473-8211 Fax (213) 473-8222

SEWER AVAILABILITY

Date: 7/18/02

1. **Name of Land Owner/ Lead Agency:** University of California at Los Angeles
   Tova Lelah
   Tel No. (310) 206-5482
   Fax No. (310) 206-1510
2. **Location/Job Address:** 405 S. Hilgard Ave.
   Los Angeles, CA 90095
3. **Building Permit Application No.:** ______
4. **Proposed Sewer Connection Location:** Intersection of Ophir Dr. & Veteran Ave. .
5. **SIMMS MH Number** From: Downstream 49016039A To: Upstream of 49016023
   From: ______ To: ______
   From: ______ To: ______
6. **Sewer Map No.** 490 **Wye Map No.** ______
7. **Size of Main Sewer Line in the Street:** 10"
8. **Type of Building Use:** Storage, Gym, School
9. **Project Description (i.e. No. of Dwelling Units, Gross Sq. Ft. and Use.....etc.)**
   Addition of 65,500 gsf, Addition of 15,500 gsf of Gymnasium space, Addition of 84 Children
10. **Proposed Estimated Sewer Flow (New Construction):** 7,995 (GPD) or ______ (CFS)
    Total Net Additional Sewer Flow(Remodel/Replacement): ______ (GPD) or ______ (CFS)
11. **Sewer Availability:** [✓] Capacity Available
    [ ] Capacity Not Available See Remarks
12. **Remarks:** ______

Requested By: Mike Kantor
Development Services Division
Bureau of Engineering
(213) 977-6032
(213) 977-6050 Fax

Sewer Availability Checked By:

Name: Bela Tamimi 8/20/02
Bureau of Sanitation
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