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N O T I C E   O F   P R E P A R A T I O N
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:

CAPITAL PROJECTS
PHYSICAL AND ENVIRONMENTAL PLANNING
300 A & E BUILDING, # 1382
BERKELEY, CALIFORNIA 94720-1382

August 29, 2003

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

NOTICE OF PREPARATION
ENVIRONMENTAL IMPACT REPORT

Project Title: UC Berkeley 2020 Long Range Development Plan and
                                    Chang-Lin Tien Center for East Asian Studies

Project Location: University of California, Berkeley

County: Alameda County, California

Project Description: The University of California, Berkeley (UC Berkeley) proposes to prepare and adopt the 2020 Long Range Development Plan ("LRDP"), a guide to future land use and physical development for the UC Berkeley campus through academic year 2020-21. Also proposed is the Chang-Lin Tien Center for East Asian Studies, the first individual project planned under the 2020 LRDP. More information on both the 2020 LRDP and the Tien Center may be found in the attached Project Description.

Environmental Review and Comment: The University of California will be the Lead Agency and will prepare an Environmental Impact Report (EIR) to evaluate the potential environmental effects of implementing the 2020 LRDP. The EIR will provide a program level environmental review of campus development through 2020-21, and to support consideration of specific future projects as they occur. The EIR will also provide a project level analysis of the Tien Center project.

An Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA), the CEQA Guidelines, and the University of California Guidelines for the Implementation of CEQA, to identify the environmental issues to be addressed in the 2020 LRDP and Tien Center EIR. The 2020 LRDP and Tien Center EIR will consider potential environmental effects in the following resource areas: aesthetics, air quality, biological resources, cultural resources, geology, seismicity and soils, hazardous materials, hydrology and water quality, land use, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. The Initial Study has determined

that the 2020 LRDP would not have potential impacts on mineral resources or agricultural resources, and therefore those resource areas will not be analyzed in the 2020 LRDP EIR.

Copies of the Initial Study are available for review during normal operating hours at the offices of Capital Projects' Physical and Environmental Planning offices, 100 A&E Building on the UC Berkeley campus and at 1936 University Avenue, Suite 300, in downtown Berkeley; at the main branch of the Berkeley Public Library, 2090 Kittredge Avenue; and online at http://www.cp.berkeley.edu.

We appreciate your prompt acknowledgement and review of this Initial Study. Due to the time limits mandated by state law, the document's 30-day review period will extend from August 29, 2003 to September 29, 2003. Comments must be received before 5:00 pm on September 29, 2003. They may be e-mailed to 2020LRDP@cp.berkeley.edu or mailed to:

> Jennifer Lawrence
> Principal Planner
> Environmental & Long Range Planning
> Capital Projects
> 1936 University Ave
> Berkeley, CA 94720

Please include a subject line indicating Scoping Comment: 2020 LRDP and Tien Center EIR.

A public scoping meeting for the 2020 LRDP and Tien Center EIR will be held on Monday, September 22, 2003 from 5 pm to 9 pm at the Clark Kerr Campus Krutch Theater, 2601 Warring Street, Berkeley. Interested individuals may offer written or oral comments on the proposed scope of the environmental analysis, which will become part of the administrative record for the EIR.

If you have any questions about the environmental review, please contact Jennifer Lawrence, Principal Planner, Physical and Environmental Planning, at (510) 642-7720.

Sincerely,

Thomas E. Lollini
Assistant Vice Chancellor
Physical and Environmental Planning
Capital Projects

Enclosures: 15 copies of the UC Berkeley 2020 LRDP and Tien Center Initial Study

cc: Notice of Preparation and Initial Study sent to addressees on attached list

Addressee List:

Local Jurisdictions

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Transportation Agencies

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Jean Hart, Deputy Director
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District Branch Chief
Department of Transportation
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General Manager
AC Transit
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Oakland, CA 94612-2800

General Manager
BART
800 Madison Street, LMA-5
Oakland, CA 94607

Water Agencies

Mr. Dennis Diemer
General Manager
East Bay Municipal Utility District
375 11th Street
Oakland, California 94607-4240

Mr. William R. Kirkpatrick
Manager of Water Distribution
Planning
East Bay Municipal Utility District
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Oakland, California 94607-4240

State Water Resources Control Board
Division of Water Quality
PO Box 100
Sacramento CA 95801

Mr. Keith Lichten, Water
Resource Control Engineer
San Francisco Regional Water
Quality Control Board
1515 Clay St. Suite 1400
Oakland, California 94612

Parks & Recreation Agencies

Mr. Brian Wiese
Interagency Planning
East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, California 94605-0381

Historic & Archaeological Resource Agencies

State of California
Native American Heritage
Commission
915 Capitol Mall, Room 364
Sacramento CA 95814

Mr. Dwight Dutschke
Office of Historic Preservation
PO Box 942896
Sacramento, CA 94296-0001

Resource Planning & Protection Agencies

Mr. Dan Buford
Chief, Coast Bay Delta Branch
United States Fish & Wildlife Service
Sacramento Fish & Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, CA 95825

Ms. Sherry Christensen, Warden
Alameda Field Office
California Dept of Fish & Game
PO Box 4314
Hayward, California 94540

California Public Utilities
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505 Van Ness Ave.
San Francisco, CA 94102-3298

Air Quality Agencies

Henry D. Hilken
Senior Environmental Planner
Bay Area Air Quality
Management District
939 Ellis Street
San Francisco, California 94109

California Air Resources Board
1001 "I" Street
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Environmental Safety, Materials & Waste Handling Agencies

Barbara J. Cook, Chief
Northern California – Coastal
Cleanup Operations Branch
Department of Toxic Substances
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700 Heinz Avenue, Suite 200
Berkeley CA 94710

California Integrated Waste
Management Board
1001 "I" Street
PO Box 4025
Sacrament CA 95812-4025

California Department of Health
Services
P.O. Box 942732
Sacramento, CA 94234-7320

Public Repositories (via hand delivery)

Environmental Design Library
Reference Desk
210 Wurster Hall
UC Berkeley Campus

Moffitt Library
Reference Desk
UC Berkeley Campus

Berkeley Public Library
Reference Desk – Main Branch
2090 Kittredge Street
Berkeley CA 94704

Oakland Public Library
Reference Desk – Rockridge Branch
5366 College Avenue
Oakland CA 94618

Albany Public Library
Reference Desk
1247 Marin Avenue
Albany CA 94706

Student Organizations (via hand delivery)

Graduate Student Assembly
Anthony Hall
Berkeley CA 94720

Anu Joshi
External Affairs VP
ASUC
220 Eshleman Hall
Berkeley CA 94720-4500

Residence Hall Assembly
2401 Bowditch Street #2272
Berkeley CA 94720-2272

PROJECT DESCRIPTION

2020 LONG RANGE DEVELOPMENT PLAN AND CHANG-LIN TIEN CENTER FOR EAST ASIAN STUDIES
UNIVERSITY OF CALIFORNIA, BERKELEY

BACKGROUND

Our mission at UC Berkeley is to deliver programs of instruction, research and public service of exceptional quality to the state of California. Over the years, our performance in support of this mission has not only equaled but often outpaced the nation's elite private universities, despite their longer histories and far larger private endowments. The excellence of UC Berkeley is a testament to the vision and public spirit of the people of California, who have sustained us for over a century as a premier research university, while also ensuring a UC Berkeley education remains within reach of every deserving student.

LONG RANGE DEVELOPMENT PLAN

Each University of California campus is required to maintain a Long Range Development Plan (LRDP), a document that defines the general framework for land use and physical development within a specific timeframe. State law (Public Resources Code 21080.09) also requires an Environmental Impact Report (EIR) to be prepared for any new or updated LRDP, pursuant to the California Environmental Quality Act (CEQA).

UC Berkeley's current LRDP was approved in 1990, and was subsequently amended to increase the maximum amount of academic and support program space in 2002. However, the world and the role of UC Berkeley within it have changed significantly since 1990. A renewed vision is necessary to address the challenges UC Berkeley faces in the 21st century, and maintain our historic standard of academic excellence. These challenges include:

- to pursue exciting new fields of inquiry and discovery, and achieve excellence in every field we pursue,
- to maintain the unique breadth and variety of our academic programs, and a strong and vital intellectual community,
- to provide every student with an outstanding education, in which critical inquiry, analysis and discovery are integral to the coursework,
- to strengthen our ability to recruit and retain exceptional individuals, and ensure the campus reflects the full social and cultural spectrum of Californians,
- to provide the space, technology, and infrastructure required to meet the demands of leading edge instruction and research,
- to preserve our extraordinary legacy of landscape and architecture, and become a model of wise and sustainable growth,
- to preserve the character and livability of the city around us, and enhance the economic and cultural synergy of city and university,
- to ensure each capital investment represents the optimal use of public resources, and
- to serve the people of California, and uphold our standard as the best public research university in the world.

To enable UC Berkeley to maintain and build upon this standard, our current UC Berkeley LRDP is being updated, to guide the capital investment required to meet the academic goals of the campus and University through academic year 2020-2021.

The 2020 LRDP will describe both the scope and nature of development proposed within this timeframe, as well as land use principles and policies to guide the location, scale and design of individual capital projects.

The EIR will provide a comprehensive program-level analysis of the 2020 LRDP, and its potential impacts on the environment, in accordance with Section 15168 of the CEQA Guidelines. In accordance with section 15161 of the CEQA Guidelines, the EIR will also include a project-specific analysis of the proposed Chang-Lin Tien Center for East Asian Studies (Tien Center), the initial project to be built under the 2020 LRDP.

The Draft EIR will be presented to the public and relevant governmental agencies for review and comment, and those comments will then be taken into consideration in preparing the Final EIR. The 2020 LRDP and the Final EIR must be approved by the Regents of the University of California before the 2020 LRDP program and Tien Center project may be implemented.

The 2020 LRDP will not commit the University to any specific project. Change is inevitable, and the University must retain the ability to adjust its development priorities in response. However, the scope of the program to be described in the 2020 LRDP represents a maximum amount of net new growth in the UC Berkeley space inventory through 2020-2021, which the University could substantially exceed only by amending the LRDP. Subsequent capital projects at UC Berkeley will be reviewed for consistency with the LRDP, its EIR, and compliance with CEQA.
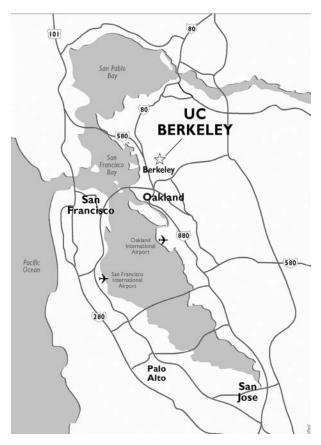
FIGURE 1. REGIONAL LOCATION

We expect to complete and submit the 2020 LRDP and Final EIR to the Regents for their consideration in Fall 2004. With this Notice of Preparation, UC Berkeley commences the CEQA process, and we invite interested agencies and members of the public to comment on the scope of the environmental analysis and evaluations of alternatives.

Because the campus is already severely constrained in terms of facilities, however, one or more urgent projects may have to commence CEQA review in advance of Regents' approval of the 2020 LRDP. Any such projects will be consistent with the 2020 LRDP, and their relationship to the 2020 LRDP program will be clearly described in their individual project-level CEQA analyses.

PROJECT CONTEXT

UC Berkeley is located approximately ten miles east of San Francisco, as shown in figure 1. Interstate 80, Highway 13, Highway 24, and Interstate 580 provide regional vehicular access to the campus. Regional transit access is provided by Bay Area Rapid Transit District (BART) and Alameda-Contra Costa Transit (AC Transit).

While the UC Berkeley campus today is a complex of several sites both in and outside the City of Berkeley, over half of the campus' built space is located on the historic 180 acre Campus Park, as described below. The city surrounds the Campus Park on the north, west and south with a dense mix of residential, institutional and commercial uses: the blocks adjacent to the Campus Park include several major University owned properties.

To the east, University owned land extends into the east bay hills from the Campus Park to Grizzly Peak Boulevard, which corresponds roughly with the Alameda-Contra Costa county line. The total area of the Campus Park and the adjacent Hill Campus to the east is roughly 1200 acres: over 95% of this area is located within Alameda County, with the easternmost portion in Contra Costa County.

200 of these acres are managed by the Lawrence Berkeley National Laboratory under federal jurisdiction, and are outside the scope of the UC Berkeley 2020 LRDP: LBNL is preparing its own LRDP for the land it manages. Other UC Berkeley operated properties include the 50-acre Clark Kerr Campus southeast of the Campus Park, as well as several other properties both in and outside the City of Berkeley, as described below. UC Berkeley will coordinate with LBNL to present the combined environmental effects of both LRDPs.

PROJECT SCOPE

The purpose of the 2020 LRDP is to guide future land use and capital investment through academic year 2020-21. While the campus functions as a single academic enterprise, the areas that comprise it differ significantly in terms of physical capacity and environmental sensitivity. To allow more meaningful analyses, the 2020 LRDP will be organized in terms of the Land Use Zones listed below and depicted in figure 2:
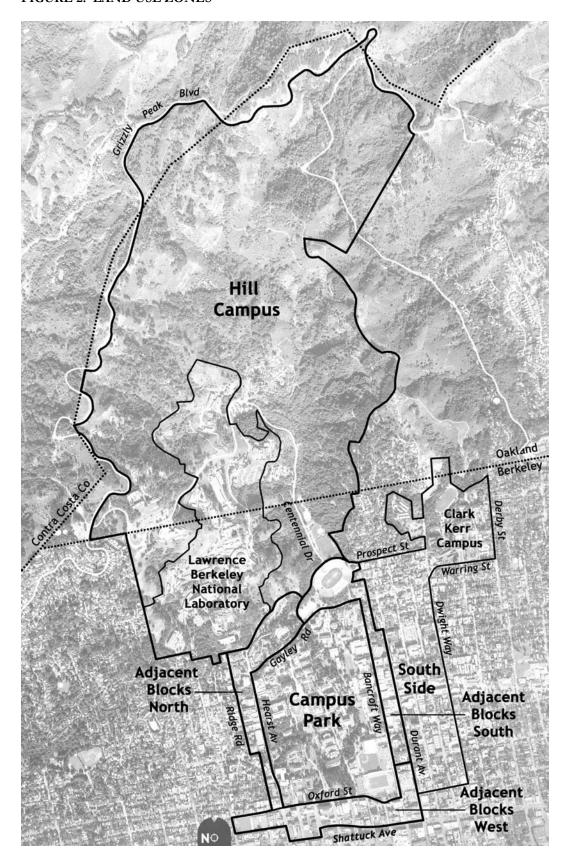
- Campus Park
- Adjacent Blocks North
- Adjacent Blocks West
- Adjacent Blocks South

- Southside
- Hill Campus
- Other Berkeley Sites
- Housing Zone

As described below, the campus' objectives through 2020 include a significant program of new University housing. These objectives include location criteria which define the Housing Zone in the 2020 LRDP: new lower division student housing must be within a one mile radius of the center of campus, while other new undergraduate and graduate student housing must be within this one mile radius or within a block of a transit line providing trips to campus in under 20 minutes.

As in the current LRDP, the scope of the 2020 LRDP will exclude University Village Albany and Richmond Field Station. It also excludes remote field stations as well as other campus properties lying entirely outside the City of Berkeley: these sites are sufficiently distant and different from the Campus Park and its environs to merit separate environmental review.

FIGURE 2. LAND USE ZONES

PROJECT DESCRIPTION

The 'project' under consideration in this EIR includes:

- The UC Berkeley 2020 LRDP (program-level analysis with detail to support subsequent project approvals) *and*
- The Chang-Lin Tien Center for East Asian Studies (project-level analysis)

The timeframe of the 2020 LRDP will extend through academic year 2020-2021, although the actual pace and sequence of individual capital projects will depend on a number of factors that can not be entirely predicted at this time, including the availability of state and other capital resources, future directions of research and instruction, shifts in demand among academic disciplines, and the emergence of new problems of societal importance.

While the 2020 LRDP is still in preparation, UC Berkeley has established some general parameters for the capital program, as described below. These parameters will serve as the basis for the environmental analyses conducted for the EIR.

Similarly, while the Tien Center is presently at a preliminary stage of architectural design, program parameters have been established for the project which, together with the general design guidelines to be prescribed in the 2020 LRDP, will serve as the basis for the environmental analysis. As the first project to be built under the new 2020 LRDP, the Tien Center will serve as a useful example of how the principles articulated in the LRDP would be realized in the design of an actual project.

DRIVERS FOR GROWTH

Under the Master Plan for Higher Education, the University of California is charged to admit from among the top 12.5% of California high school graduates, as well as the top 4% of the graduates of each high school. Due to the projected growth in the number of these students, the University as a whole is projected to increase enrollment by over 63,000 during the period 1998-2010 to meet this mandate. As part of this strategy, UC Berkeley has been requested to evaluate its ability to accommodate an increase of 4,000 students over the base year 1998. This represents an increase in enrollment of roughly 13%: a significant challenge for any campus, but particularly for a mature, urban campus with almost no vacant land.

UC Berkeley has also experienced steady growth in research, and we expect this trend to continue. Over the last decade of the 20th century, external research funding increased in real terms by an average of roughly 3.6% per year: over 90% of this funding comes from federal, state and nonprofit organizations. While our limits on space require us to be very selective in pursuing new projects, a strong and vital research program is fundamental to our mission of public service, and must be supported by adequate capital investment.

The research and scholarship pursued by our faculty, postdoctoral students, researchers and students has led to improved agricultural and industrial productivity, to advances in human and environmental health, and to new insights into personal and social behavior. External research funds also represent a significant source of income to the regional economy, and a significant generator of new jobs both at the University and in the private sector.

But research is also integral to, and inseparable from, the quality of a UC Berkeley education. As a research university, UC Berkeley provides its students with a unique experience, one in which critical inquiry, analysis, and discovery are integral to the coursework. Our students are expected to play an active role in research, under the guidance of faculty who are themselves engaged in creating, not merely imparting knowledge. UC Berkeley must continue to pursue promising new avenues of inquiry and discovery in order to provide this experience and, in particular, to enable us to significantly expand the scope of research-based education at the undergraduate level.

STRATEGIC ACADEMIC PLAN

As the initial step toward a new capital investment strategy, UC Berkeley began work in fall 2000 on a Strategic Academic Plan. The Plan, developed by a committee of faculty, students, and academic and administrative staff, and refined through a series of campus forums, is now complete and viewable at

http://www.berkeley.edu/news/media/releases/2003/05/sap/plan.pdf

The Plan describes the challenges UC Berkeley must address to maintain our standard of excellence, and recommends ten key principles to guide our future practices and initiatives. While those principles cover the entire scope of the academic enterprise, several are directly relevant to the capital investment program to be defined in the 2020 LRDP. For example:

- the need to limit future enrollment growth at UC Berkeley, and focus more capital resources on renewing our aging campus to meet the demands of modern education and research,
- the need to concentrate future academic growth on the Campus Park and its adjacent blocks, to encourage the synergy among disciplines that leads to new insight and discovery, and
- the need to invest in more University housing near campus, to ensure our students have full access to the campus' academic resources and intellectual life.

POPULATION

By 2020, we estimate our campus headcount (the number of people enrolled or employed at the University) during the regular academic year may increase by up to 12% over what it is today, as shown in table 1: the result of growth in both enrollment and sponsored research.

TABLE 1. ESTIMATED MAXIMUM CAMPUS HEADCOUNT

	Actual Headcount 2001-2002	Net Addl Headcount 2020 LRDP	Est Total Headcount 2020
Students			
Regular Terms*	31,800	1,650	33,450
Summer	*11,400*	*5,700*	*17,100*
Faculty**	1,758	220	1,980
Academic Staff Postdocs & Visiting Scholars**	3,041	1,840	4,870
Nonacademic Staff**	8,136	810	8,950
Other Visitors & Vendors	1,200	800	2,000
Estimated Regular Terms Headcount	**45,935**	**5,320**	**51,250**
Estimated On-Campus Headcount***	44,834		

*   Average fall-spring headcount.
**   Excludes student workers to avoid double counting.
*** Excludes off campus programs and other exclusions per April 2002 Population Report to City of Berkeley

PROGRAM SPACE

By 2020, we estimate the space demands of campus academic and support programs may grow by up to 18% over current and approved space, as shown in table 2. Our academic programs require more space not only to educate a larger student body, but also to support new methods of inquiry and discovery. The complex problems we are exploring at UC Berkeley today require a combination of focused, individual work and work in interactive teams, often comprised of several academic disciplines. The campus must provide adequate space for both, with the high performance technology and infrastructure modern research and instruction demand.

However, our estimates of future space demand are not due entirely to future program growth: some new space is required just to compensate for the shortages we have today. The most recent survey of space at UC Berkeley, in 2001-2002, revealed a space deficit of roughly 450,000 GSF in academic programs alone.

UC Berkeley also has roughly 450,000 GSF of leased space in various locations in and outside Berkeley, and some of this space is deficient in terms of life safety, functionality, or both. Our estimate of future space demand also includes a contingency for the strategic replacement of some of this leased space with new University-owned space.

We expect a substantial portion of the future space demand in academic and support programs to consist of research laboratory space, along with some expansion of our animal research facilities. Research labs at UC Berkeley are a very broad category of space and include a wide variety of types, from biology and chemistry to physics and engineering. In fact, many future research labs will house multidisciplinary teams drawn from several fields. Since we can not predict the exact combination of future lab types, our environmental analyses for the 2020 LRDP will be based on one or more lab prototypes which provide a maximum estimate of potential environmental impacts.

We also expect the demand for student services to grow, not only to serve more students, but also to improve the range and quality of those services. And, while UC Berkeley is fortunate to have one of the world's great university libraries, we must continue to augment and expand its resources to maintain their relevance to future research and scholarship.

TABLE 2. ESTIMATED MAXIMUM SPACE DEMAND

	Actual + CEQA Approved UC Berkeley Space 2001-2002	Net Additional Space 2020 LRDP	Estimated Total Space 2020
Academic & Support (GSF)*	12,100,000	**2,200,000**	14,300,000
Housing (bed spaces)	8,200	**2,600**	10,800 **
Parking (spaces)	7,600	**2,300**	9,900

*   2001-2002 A&S space includes all buildings except those primarily housing or parking.

*   Future estimates of A&S space do not include new housing or new parking.

**   2020 estimate includes up to 200 family-suitable units for faculty, staff, or visiting scholars.

**   Does not include 800-1000 beds proposed at University Village Albany: outside 2020 LRDP scope.

HOUSING & PARKING

By 2020, our objective is to increase the amount of University housing within the 2020 LRDP scope by up to 32% over current and approved beds, as shown in table 2. The shortage of good and reasonably priced housing near campus presents a formidable challenge to the pursuit of a UC Berkeley education, and future campus growth will further increase demand. More and better housing near campus is required to provide our students with the access to campus resources, and the community of peers and mentors, they require to excel. Up to 200 of the proposed new bed spaces may be designed as units suitable for faculty or staff.

By 2020, our objective is to increase the amount of campus parking by up to 30% over current and approved spaces, as shown in table 2. While UC Berkeley has an exemplary record of promoting alternatives to the private auto, the demand for parking today is greater than the supply, and future campus growth will further increase demand. More parking near campus is required to ensure full access to its programs, resources and intellectual life.

Because the state provides no funds for University housing or parking, the entire cost of construction, operation, and maintenance must be supported by housing and parking revenues. Our objectives to improve the supply of housing and parking must therefore be balanced by the need to keep prices at reasonable levels, and avoid building surplus capacity. Our 2020 targets may be adjusted in the future to reflect changes in demand and market conditions, but UC Berkeley may not substantially exceed the proposed number of net new housing bed spaces or parking spaces without amending the 2020 LRDP.

LAND USE ZONES

With the exception of the Tien Center, the 2020 LRDP will not identify specific individual projects. Rather, it will establish 'capacity envelopes' in each Land Use Zone for program space, housing and parking. Preliminary values for these envelopes are shown in table 3.

In order to provide the campus some flexibility in siting new projects to meet future needs, the sum of the capacity envelopes for each type of space is greater than total estimated demand. However, the cumulative net new space constructed by UC Berkeley, excluding projects already reviewed under CEQA , may not substantially exceed the NTE (not to exceed) figures in table 3 without an amendment to the 2020 LRDP. Should net new space substantially exceed a capacity envelope in any zone, subsequent environmental review would examine whether new environmental impacts not examined in the 2020 LRDP EIR would occur.

A fundamental principle of the Strategic Academic Plan is that the academic enterprise at UC Berkeley should be concentrated on and around the Campus Park, in order to support the dynamic, interactive culture a modern research university demands. 90-100% of future space demand in academic and support programs is planned to be accommodated on the Campus Park or its Adjacent Blocks, primarily the blocks adjacent to the west.

New parking is planned be located at the Campus Park perimeter or on the blocks adjacent to the west and south. In order to both maximize student access to campus and minimize student auto trips, all new student housing is planned to be located within a 'Housing Zone', defined as within a mile of the center of campus, or within a block of a transit line providing trips to campus in under 20 minutes, as shown in table 3.

TABLE 3. ESTIMATED MAXIMUM NEW SPACE BY ZONE

	Max Net Addl Academic & Support GSF	Max Net Addl Housing Bed Spaces	Max Net Addl Parking Spaces
Campus Park	1,000,000		600
Adjacent Blocks			
North	50,000		
West	800,000		1,300
South	400,000		600
Southside	50,000		
Hill Campus	100,000	100 *	
Other Berkeley	50,000		
Housing Zone		2,600 **	
Total Net Addl Space NTE	**2,200,000**	**2,600**	**2,300**

*   Represents up to 100 family-suitable units for faculty and/or staff

** Includes up to 100 family-suitable units for faculty and/or staff

Note: In order to allow the university some flexibility in siting individual projects, the sum of the allocations for individual land use zones is greater than the maximum 'not to exceed' (NTE) totals for all zones combined. However, the university may not substantially exceed the NTE totals without amending the 2020 LRDP.

CONSTRUCTION PROGRAM

While project-specific environmental documents tend to view construction impacts as temporary, the program envisioned for the 2020 LRDP would entail a sequence of numerous and potentially overlapping construction projects. The 2020 LRDP EIR will assume that a number of construction projects may be underway at any one time in the Campus Park, Adjacent Blocks, Southside and Hill Campus.

DESIGN FRAMEWORK

While we are proud of, and committed to, our service to the people of California, we also recognize the campus does not exist apart from the city around it. The city is as much a part of the UC Berkeley experience as the campus itself, and each new University project should respect and enhance the city's unique character and livability. In particular, the blocks west of campus hold great potential for University initiatives that strengthen the synergy of city and campus, and support the cultural and economic vitality of downtown Berkeley.

We also recognize the campus represents an extraordinary legacy of landscape and architecture. We are committed to ensuring the capital program described in the 2020 LRDP preserves and enhances this legacy. Toward this goal, UC Berkeley recently completed the New Century Plan, an advisory document used by the campus to guide future capital investment decisions. The New Century Plan may be viewed at http://www.cp.berkeley.edu

At its heart, UC Berkeley remains a 'campus park', and its magnificent landscape and variety of open spaces is what gives this park its unique and memorable identity. The campus also contains many historic buildings of great distinction, and their elegance and civic presence serve as models for future University projects. University buildings tend to last far longer than their initial contents, and should have the quality, durability and flexibility to serve UC Berkeley and the people of California for generations.

The 2020 LRDP will include general design principles and guidelines for each Land Use Zone, as well as procedures for project review, to ensure these goals are as fully realized in the location and design of each future project as possible. The New Century Plan prescribes design and program guidelines for the Campus Park, and we propose to incorporate them into the 2020 LRDP. Design principles and guidelines in the 2020 LRDP for sites outside the Campus Park and Hill Campus will be informed by the policies of the relevant municipal general plans.

CHANG-LIN TIEN CENTER FOR EAST ASIAN STUDIES

The Tien Center, the first project planned under the 2020 LRDP, is a two-phase project, to be built at the base of Observatory Hill facing the Central Glades, as shown in figure 3. The Tien Center will consolidate the various programs of the East Asian Library, the Institute of East Asian Studies, and the Department of East Asian Languages and Cultures.

PROGRAM

The roughly 67,000 GSF phase 1 building will house the East Asian Library, presently located in spaces in California and Durant Halls and 2223 Fulton. Construction of phase 1 is planned to begin once the 2020 LRDP EIR is certified by the Regents and the project is approved. The roughly 36,500 GSF phase 2 building will house the Institute of East Asian Studies and the Department of East Asian Languages and Cultures, presently located in Durant and Dwinelle Halls and 2223 Fulton. Program space in phase 2 will include academic and admini-strative offices, as well as departmental and general campus classrooms. The schedule for phase 2 is not yet determined.

28 permanent staff will be housed in the East Asian Library, an increase of 5 over the 23 current permanent staff. The Library will also have 18 student workers, a number roughly equal to the current average of EAL student workers. Staff counts for phase 2 are not yet determined, but will fall within the 2020 headcount estimates for the 2020 LRDP.

Reoccupation of the space vacated by current activities is not itself expected to result in any significant increase in campus staff. The 2223 Fulton building is planned to be demolished due to seismic deficiencies as soon as it is entirely vacated. The released space in Durant, California and Dwinelle Halls is expected to be utilized to relieve overcrowding in other academic and administrative units, given the aforementioned deficit in campus academic space.

The phase 1 building will displace 31 existing surface parking spaces: these spaces will be replaced through the program of new parking construction described in the 2020 LRDP.

DESIGN

The Tien Center is envisioned as a composition of two rectangular buildings. Phase 1 will be located at the south base of Observatory Hill on the site of the existing parking lot, facing Memorial Glade and Doe Library, and aligned with the central axis of the Glade.

Phase 2 will be sited at the west base of Observatory Hill adjacent to Haviland Hall, oriented 90° to phase 1. Each building will be roughly 75' in height above the existing ground plane.
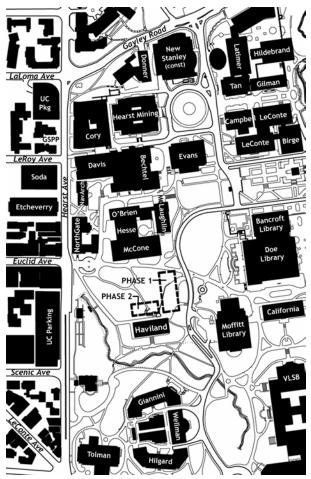
FIGURE 3. TIEN CENTER LOCATION

The Tien Center will occupy one of the most visible sites on the UC Berkeley campus, and will also be located within the campus' historic ensemble of neo-classical buildings. The project design is based on the guidelines for the classical core articulated in the New Century Plan, which include the following design criteria:

- The project shall preserve the view of Doe Library from the North Gate entrance.
- The project shall be composed of elements orthogonal in plan, and sited to respect the formal axial relationships of the classical core buildings and the central glades.
- The project shall have a hip or gable roof, with a pitch similar to existing classical core buildings.
- The project shall be fenestrated with individual punched windows that respect the structural grid.
- The project shall utilize the following materials palette:
    - Roofs: unglazed red clay tile
    - Walls: light grey granite or architectural concrete with sand finish
    - Windows: clear or lightly tinted glass
    - Metalwork: copper or bronze

ENVIRONMENTAL IMPACT REPORT

The 2020 LRDP EIR will be a new program EIR, and will replace the 1990 LRDP EIR upon its certification by the Regents of the University of California. EIR analyses of potential impacts resulting from implementation of the 2020 LRDP or construction of the Tien Center shall include the following topical areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Seismicity and Soils
- Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Population and Housing
- Public Services
- Transportation and Traffic
- Utilities and Service Systems

The EIR will also consider the cumulative impacts of the 2020 LRDP and the Tien Center in combination with the impacts of other known past, present and reasonably foreseeable future plans and projects, such as the recently updated City of Berkeley General Plan, the proposed Southside Plan (approved for CEQA review by the City of Berkeley Planning Commission in July, 2003) and Lawrence Berkeley National Laboratory proposals, including the proposed scope of their LRDP as published in a Notice of Preparation in 2000, and any future updates to that scope.

ALTERNATIVES

The EIR will also include an analysis of alternatives to the project, including the 'no project' alternative. While the final list of alternatives will be developed in conjunction with the environmental analyses, our preliminary list of potential alternatives includes:

- **No Project** (required under CEQA). No further development by UC Berkeley beyond that which already has CEQA approval under a previous EIR.

- **Reduced Enrollment Growth.** Growth in student enrollment limited to a smaller number of new students, with corresponding decreases in parking and housing demand.

- **Limited Research Growth.** Growth in student enrollment as estimated but with future growth in sponsored research limited to a rate below that assumed for the 2020 LRDP.

- **Some Research Growth Offsite.** Growth in enrollment and research as estimated, but with some percentage of future research growth accommodated at Richmond Field Station or other sites outside the campus environs.

- **Increased Research Growth in Hill Campus.** Growth in enrollment and research as estimated, but with a greater percentage of future research growth accommodated in the Hill Campus than assumed in the 2020 LRDP.

- **Reduced or No New University Housing.** Same growth in enrollment and research, but with primary or sole reliance on non-university housing to accommodate the housing demand generated by new students, faculty and staff.

- **Reduced or No New University Parking.** Same growth in enrollment and research, but with primary or sole reliance on non-university parking to accommodate the parking demand generated by new students, faculty and staff.

- **Clark Kerr Campus Development.** Development of a portion of the housing proposed in the 2020 LRDP on the Clark Kerr Campus rather than on other sites. This alternative would require changes to the existing University agreements with the City and with nearby property owners.

<div align="center">

INITIAL STUDY

2020 LONG RANGE DEVELOPMENT PLAN AND CHANG-LIN TIEN CENTER FOR EAST ASIAN STUDIES

UNIVERSITY OF CALIFORNIA, BERKELEY

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PURPOSE

Section 21080.09(b) of the Public Resources Code requires that approval of a campus LRDP be supported by an EIR. UC Berkeley will prepare an EIR for the 2020 UC Berkeley Long Range Development Plan in compliance with this requirement. As identified in Section 15063(c) of the CEQA Guidelines, the purpose of this Initial Study 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 not result or 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.

The environmental factors checked below could be potentially affected by implementation of the 2020 LRDP and/or by cumulative impacts resulting from implementation of the 2020 LRDP in conjunction with other expected developments. These factors will be evaluated in the 2020 LRDP EIR.

DETERMINATION

On the basis of the initial evaluation that follows, UC Berkeley finds that:

	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
X	The proposed project MAY have a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.
	The proposed project MAY have a "potentially significant impact" or "potentially significant impact unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable standards and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Thomas E. Lollini   Assistant Vice Chancellor

INITIAL STUDY

EVALUATION OF ENVIRONMENTAL IMPACTS

All answers take account of the whole action involved, including beneficial, direct, indirect, construction-related, operational, and cumulative impacts. A list of references used in the preparation of this Initial Study is included at the end of this document.

CEQA does not require an Initial Study where an EIR is certain to be prepared (CEQA Guidelines 15063(a)). Instead, the following study is intended to assist the preparation of the pending EIR by focusing on effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant effects would not be significant.

Appendix G of the CEQA Guidelines provides only a suggested format to use when preparing an Initial Study. UC Berkeley 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.

DEFINITIONS OF COLUMN HEADINGS

This Initial Study serves to identify the potential environmental impacts that will be addressed in the EIR for the proposed project.

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 2020 LRDP, intended to be of sufficient detail to support specific projects which implement the 2020 LRDP as they arise, a specific project-level analysis for the Tien Center, and a cumulative-level analysis for potential effects of LRDP implementation combined with known and reasonably foreseeable future growth in the surrounding area.

No Additional Analysis Required applies to topics where the proposed LRDP implementation, including the Tien Center, clearly would have no significant effect on the particular environmental issue, and no additional analysis, beyond that provided in this Initial Study, is warranted or required.

L = LRDP Analysis	Impact to be	No Additional
T = Tien Center Analysis	Analyzed in	Analysis
L+T = LRDP and Tien Center Analysis	EIR	Required

1. AESTHETICS
Would the 2020 LRDP allow for development that would:

a) Have a substantial adverse effect on a scenic vista?   **L+T**

The Campus Park, its surrounds, and the Hill Campus of UC Berkeley are visible from many Bay Area viewpoints. Vistas also occur on campus. The 2020 LRDP EIR will inventory current scenic vistas from publicly accessible viewpoints on and off campus. The 2020 LRDP EIR will assess whether development under the 2020 LRDP program or implementation of the Tien Center project could adversely impact identified scenic vistas.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcrops, and historic buildings within a state scenic highway?   **L+T**

Regional access to the campus is provided by Interstate Highways 80 and 580, and State Routes 24 and 13. None is designated or presently eligible as scenic routes (California Department of Transportation, Office of State Landscape Architecture, list of California Scenic Routes). Therefore, development under the 2020 LRDP and implementation of the Tien Center project would not affect scenic resources within a state scenic highway. No impact would occur and additional analysis is not required.

c) Create a new source of substantial light or glare which would adversely affect day- or night-time views in the area?   **L+T**

To accommodate the wide range of University activities in a dense campus setting, the UC Berkeley 2020 LRDP may change land uses, intensify the use of or expand use hours for existing facilities, and result in new development that could adversely affect day- or night-time views. The potential for intrusive or otherwise adverse light and glare impacts would be examined in the 2020 LRDP EIR. The project-specific analysis of the Tien Center would examine potential adverse light or glare impacts of the project on its Campus Park site and vicinity.

d) Substantially degrade the existing visual character or quality of the site and its surroundings?   **L+T**

The Campus Park, its surrounds, and the Hill Campus of UC Berkeley vary widely in visual character and development intensity. The potential for development under the 2020 LRDP to substantially degrade the visual character and quality of its sites and surrounds will be examined in the 2020 LRDP EIR. Project-specific impacts of the Tien Center on its Campus Park site and vicinity will also be examined.

2. AIR QUALITY
Would the 2020 LRDP allow for development that would:

a) Conflict with or obstruct implementation of the applicable air quality plan?   **L+T**

The Campus Park, its surrounds, and the Hill Campus of UC Berkeley are located in the San Francisco Bay Area, currently a non-attainment zone for ozone and airborne particulate matter. Construction and development activities under the 2020 LRDP would result in short- and long-term emissions of criteria air pollutants from mobile and stationary sources. These emissions would contribute to the current non-attainment status of the Bay Area for ozone and airborne particulate matter. The 2020 LRDP EIR will analyze whether implementation of the 2020 LRDP would

L = LRDP Analysis T = Tien Center Analysis L+T = LRDP and Tien Center Analysis	Impact to be Analyzed in EIR	No Additional Analysis Required

conflict with or obstruct implementation of applicable air quality plans. The 2020 LRDP EIR will also analyze project-specific impacts associated with the proposed Tien Center.

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

The 2020 LRDP EIR will examine the potential for vehicle and stationary source emissions under the 2020 LRDP to violate state and federal air quality standards or contribute to existing air quality violations. The potential for mobile source, construction and operational emissions associated with the 2020 LRDP to influence air quality would be examined. The Tien Center would house office, classroom and library space, and would not be a significant point source for air emissions.

c) Expose sensitive receptors to substantial air pollutant concentrations?	**L**	**T**

Independently and in contrast to some types of manufacturing or production uses, University operations are not typically significant emission sources. The 2020 LRDP EIR will evaluate whether construction and development activities under the 2020 LRDP would expose sensitive receptors, including nearby schools, to substantial pollutant concentrations. The Tien Center would house office, classroom and library space, and would not be a significant point source for air pollutants.

d) 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?	**L+T**	

The 2020 LRDP EIR will examine the potential impacts of vehicle and stationary source emissions from construction and development activities under the 2020 LRDP and from other reasonably foreseeable projects in the region. The 2020 LRDP EIR will examine the cumulative projection of total emissions through 2020 to determine whether increases in non-attainment criteria pollutants would be cumulatively considerable. The project-specific analysis of the Tien Center will rely on the program-level analysis to address this issue.

e) Expose people to substantial levels of toxic air contaminants (TACs), such that the exposure could cause an incremental human cancer risk greater than 10 in one million or exceed a hazard index of one for the maximally exposed individual?	**L**	**T**

Development under the 2020 LRDP could add research facilities or expand existing campus uses that are potential sources of toxic air contaminants (TACs). In the 2020 LRDP EIR, factors from the *Central Campus Human Health Risk Assessment* (June 2000), augmented to include emissions from emergency generators, would be used to develop estimates for emissions from development under the 2020 LRDP. If the 2020 LRDP would result in an excess cancer risk greater than 10 in one million or exceed a hazard index of one, a significant impact would be assumed to result and be addressed in the EIR. Calculated cancer risks assume a continuous exposure time of 70 years, which provides a conservative analysis because most exposures are of much shorter duration. The hazard index assumes a one-hour exposure to maximum hourly emissions from all Campus Park sources, which provides a conservative analysis because maximum hourly emissions from all sources are not expected to simultaneously occur within one hour. The Tien Center would house office, classroom and library space, and would not be a source for toxic air contaminant emissions; thus, the EIR would not further examine project-specific contributions of the Tien Center to TAC emissions.

L = LRDP Analysis	Impact to be	No Additional
T = Tien Center Analysis	Analyzed in	Analysis
L+T = LRDP and Tien Center Analysis	EIR	Required

f) Cause objectionable odors affecting a substantial number of people?	**L**	**T**

Existing campus facilities are not commonly sources of odors. However, the 2020 LRDP EIR will analyze the potential for objectionable odors resulting from construction and development activities under the 2020 LRDP. The 2020 LRDP would be a general land use plan intended to guide the pattern of development and would not articulate specific development projects, with the exception of the Tien Center. The Tien Center would house office, classroom and library space, and would not be a source for odiferous emissions; thus, the EIR would not further examine project-specific odor impacts of the Tien Center.

3. BIOLOGICAL RESOURCES

Would the 2020 LRDP allow for development that would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or US Fish and Wildlife Service (USFWS)?	**L+T**	

Vegetation on the Campus Park and its surrounds is primarily ornamental landscaping, including trees, shrubs, lawns, and groundcover. Strawberry Creek forms an important natural corridor across most of the Campus Park and, although altered, supports remnants of natural vegetation as well as planted native vegetation. No significant natural communities exist on the Campus Park or in its surrounds, though the Wickson, Grinnell, and Goodspeed Natural Areas all contain remnant and volunteer native vegetation, planted native vegetation, and ornamental landscaping. (The designation "natural areas" is based on the general physiognomic appearance of these areas in relation to adjacent landscapes, rather than on their integrity as native plant communities.) The Campus Park and its surrounds are also characterized by a high level of human activity. As a result, sensitive natural communities and/or sensitive species are not likely to be present. Nevertheless, the biological resources analysis in the EIR will evaluate the potential for such species to occur. Additionally, the EIR will address potential effects upon roosting, nesting, and foraging opportunities for protected species such as migratory birds, as well as wildlife that are commonly associated with highly developed areas.

The Hill Campus comprises approximately 1000 acres of developed and undeveloped lands to the east of the Campus Park. Important biological features in the Hill Campus include the south fork of Strawberry Creek and its tributaries, the designated ecological study areas, areas supporting natural vegetation, and to a lesser degree stands of eucalyptus and conifer plantings. In the Hill Campus, sensitive natural communities most likely include: native perennial grasslands, riparian scrub and woodland, sage scrub, and freshwater seeps. Portions of the Hill Campus property have been included in the US Fish and Wildlife Service Critical Habitat Area for the Alameda whipsnake *(Masticophis lateralis euryanthus)*. The Berkeley hills are also within the historic range of the federally threatened California red legged frog *(Rana aurora draytonii)* although the California Natural Diversity Database records show no occurrences within the Hill Campus. The CNDDB would be a further resource for information in the 2020 LRDP EIR.

The 2020 LRDP EIR would examine the potential for development under the LRDP to adversely affect candidate, sensitive or special status species on the Campus Park, its surrounds, and the Hill Campus. The EIR would include project-specific analysis of potential adverse species effects that might be caused by the proposed Tien Center.

L = LRDP Analysis T = Tien Center Analysis L+T = LRDP and Tien Center Analysis	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, or regulations or by the CDFG or USFWS?	**L**	**T**

As described above, remnant and altered riparian habitats occur in the vicinity of Strawberry Creek on the Campus Park, and some natural communities occur in the Hill Campus. The 2020 LRDP EIR will evaluate the potential for the 2020 LRDP to adversely affect riparian habitat or other sensitive natural habitat. The proposed Tien Center would not be located in or adjacent to a riparian habitat or other sensitive natural community and this will not be analyzed further in the EIR.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means?	**L**	**T**

The Campus Park, its surrounds, and the Hill Campus include no known federally delineated jurisdictional wetlands, although fresh water seeps and springs in the Hill Campus may merit protection. The campus coordinates with state and federal agencies when a project impacts Strawberry Creek, other open drainage channels, and other wetlands such as freshwater seeps and springs. The 2020 LRDP EIR will evaluate the potential for development under the 2020 LRDP to adversely affect wetland areas. The project-specific analysis of the Tien Center would not address this issue because the Tien Center site is not located near federally protected wetlands.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	**L+T**	

As described above, the landscape of the Campus Park and its surrounds is of limited native habitat value due to extensive human activity and alteration. The Campus Park is located in an urbanized area. It does not provide a geographic link between two natural areas and, therefore, it does not serve as a primary wildlife movement corridor. However, campus vegetation may provide nesting, roosting, and foraging opportunities for migratory birds. The natural qualities of the Hill Campus are of higher potential habitat value than the Campus Park. The 2020 LRDP EIR will evaluate potential effects of the 2020 LRDP and the potential project effects of the Tien Center on the movement of native or migratory species, their corridors, and native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources?	**L+T**	

The 2020 LRDP EIR will evaluate the consistency of the 2020 LRDP with federal and state plans, policies, laws and regulations, such as the Migratory Bird Treaty Act, that are relevant to potentially occurring biological resources. Areas of the Hill Campus are designated Ecological Study Areas, preserved in a primarily natural state for instruction and field study. The 2020 LRDP would describe and plan further for the ESA lands. Local ordinances would not apply to campus projects, because the University is a state agency exempted from local controls in accordance with the state constitution. The project-specific analysis of the Tien Center will rely on the program-level analysis to address this issue.

L = LRDP Analysis	Impact to be	No Additional
T = Tien Center Analysis	Analyzed in	Analysis
L+T = LRDP and Tien Center Analysis	EIR	Required

f) Conflict with any adopted Habitat Conservation Plan, Natural Communities Conservation Plan or other approved local, regional or state habitat conservation plan?		**L+T**

The Campus Park, its surrounds, and the Hill Campus are not located within any area designated for an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. No additional analysis is required. See also response to 3.a), above.

4. CULTURAL RESOURCES
--**Historical Resources**
Would the 2020 LRDP allow for development that would:

a) Cause a substantial adverse change in the significance of a historical resource as defined in CCR Section 15064.5 ?	**L+T**	

The 2020 LRDP will include policies and programs to protect historic resources. However, development under the 2020 LRDP could potentially include adverse changes to these resources. The 2020 LRDP EIR will include a detailed assessment of potential program-level impacts on identified historical resources caused by implementation of the 2020 LRDP. The site for the proposed Tien Center project is a parking lot and portion of Observatory Hill on the Campus Park proximate to Haviland Hall, an historic resource on the National Register of Historic Places. The 2020 LRDP EIR will include a project-specific analysis of impacts of the proposed Tien Center project on historic resources.

CULTURAL RESOURCES
--**Archaeological and Paleontological Resources**
Would the 2020 LRDP allow for development that would:

b) Directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature?	**L+T**	

The campus does not contain unique paleontological resources or unique geologic features. During the course of development at UC Berkeley, extensive excavation for buildings and infrastructure have not revealed the presence of unique paleontological or geologic resources. No impact would occur, and no additional analysis is required.

c) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?	**L+T**	

Potential for discovery of archaeological resources during excavations for projects developed under the 2020 LRDP will be examined in the 2020 LRDP EIR. Development under the 2020 LRDP may occur near unknown archaeological resources or historical watercourses, and could disturb prehistoric cultural resources and/or previously unknown human burial sites of Native American groups. The potential for the 2020 LRDP to result in damage to archaeological resources will be examined in the 2020 LRDP EIR. Potential project-specific impacts of the Tien Center will also be examined. Because development could potentially affect currently unknown archaeological resources, the campus will consult with the Native American Heritage Commission, as well as appropriate literature, and the EIR will analyze the potential for additional development on the campus to result in damage to archaeological resources known and unknown. The 2020 LRDP EIR will include a project-specific analysis of impacts of the proposed Tien Center project on historic resources.

L = LRDP Analysis	Impact to be	No Additional
T = Tien Center Analysis	Analyzed in	Analysis
L+T = LRDP and Tien Center Analysis	EIR	Required

d) Disturb any human remains, including those interred outside of formal cemeteries?   <div align="center">L+T</div>

The 2020 LRDP EIR will evaluate the potential for the 2020 LRDP to result in disturbance to human remains. The EIR will include a project-specific analysis of potential for the Tien Center to impact human remains.

GEOLOGY, SEISMICITY AND SOILS

Would the 2020 LRDP allow for development that would:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

    Rupture of a known earthquake fault?   <div align="center">L   T</div>

LRDP-related increases in staff, faculty, and students would create additional exposure to earthquake risk from the Hayward Fault, extending just east of the Campus Park, and other active faults in the vicinity. Seismic safety policies of the Regents, compliance with building code, and continuation of the extensive seismic safety improvement program would be incorporated into development proposed under the 2020 LRDP. The EIR will evaluate seismic hazard maps to further analyze potential impacts from earthquake faults. The Tien Center site is not on an earthquake fault.

    Strong seismic ground shaking?   <div align="center">L+T</div>

LRDP-related increases in staff, faculty, students and developed area would create additional exposure to earthquake risk from the Hayward Fault, which extends east of the Campus Park, and other active faults in the vicinity. Much of the Campus Park, its surrounds, and the Hill Campus would be subject to "violent" or "very violent" shaking intensity in a magnitude 7.3 earthquake on the Hayward Fault (Figure IV.1-1, *City of Berkeley General Plan DEIR,* 2001). Seismic safety policies of the Regents, compliance with building code, and an extensive seismic safety improvement program would be incorporated into development proposed under the 2020 LRDP. The EIR will analyze susceptibility to groundshaking based on soil characteristics and proximity to earthquake faults, and include project-specific analysis of such risks for the Tien Center.

    Seismic -related ground failure, including liquefaction?   <div align="center">L+T</div>

The Campus Park, its surrounds, and the Hill Campus are not located in a liquefaction zone (Figure IV.1-1, *City of Berkeley General Plan DEIR*, 2001). However, site-specific geologic investigations of campus development sites have found variable soil composition and variable density of naturally occurring alluvial materials. Uncontrolled fills and high water-table levels have required correction of compaction and drainage conditions to provide acceptable foundation support. These and other potential ground failure risks that could pose hazards to people or property due to development under the 2020 LRDP will be further analyzed in the 2020 LRDP EIR. Project-specific analysis of soil properties for the Tien Center will also be included in the 2020 LRDP EIR.

    Landslides?   <div align="center">L   T</div>

Landslide conditions occur in the Hill Campus. The 2020 LRDP EIR will examine the potential for development under the 2020 LRDP to pose hazards to people or property due to landslide conditions. The EIR would not further analyze this issue for the Tien Center, which would be sited on the Campus Park and not subject to significant landslide risk.

L = LRDP Analysis T = Tien Center Analysis L+T = LRDP and Tien Center Analysis	Impact to be Analyzed in EIR	No Additional Analysis Required

b) Result in substantial soil erosion or the loss of topsoil?   **L+T**

Although site drainage systems can influence and reduce erosion, erosion is likely to occur during construction under the 2020 LRDP. Soil erosion can cause numerous types of environmental impacts, which could impact the water quality of Strawberry Creek and San Francisco Bay. Soils can contain nitrogen and phosphorus, which when carried into water bodies can trigger algal blooms. Extensive blooms of algae can reduce water clarity, deplete oxygen concentrations, and create unpleasant odors. Excessive deposition of sediments in stream channels can blanket fauna and clog streambeds, degrading aquatic habitat. Increased turbidity due to suspended sediments may also reduce photosynthesis that produces food supply and aquatic habitat. Finally, sediment from onsite erosion could accumulate in the downstream drainage facilities, which could interfere with flow, aggravating downstream flooding conditions. The 2020 LRDP EIR will examine the potential loss of topsoil and potential for substantial soil erosion under the 2020 LRDP development program. Project-specific analysis of soil erosion or topsoil impacts of the proposed Tien Center project will be included in the EIR.

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 landslides, lateral spreading, subsidence, liquefaction or collapse?   **L+T**

As described above, the potential for development under the 2020 LRDP to occur on lands that expose people or properties to risk due to landslide, liquefaction, or other soils-related condition will be examined in the 2020 LRDP EIR; the analysis will include project-specific review for the Tien Center.

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

As described above, the potential for development under the 2020 LRDP to occur on lands that expose people or properties to risk due to landslide, liquefaction, or other soils-related condition such as expansive soils, will be examined in the 2020 LRDP EIR; the analysis will include project-specific review for the Tien Center.

6. HAZARDOUS MATERIALS
Would the 2020 LRDP allow for development that would:

a) Create a significant hazard to the public or the environment through   **L**   **T**
the routine transport, use, production, or disposal of hazardous materials?

Implementation of the 2020 LRDP could result in the development of additional research laboratories and other research facilities, including animal care and research facilities, that would use, store, and require the transportation of hazardous materials and disposal of hazardous waste. Also, solvents, adhesives, cements, paints, cleaning agents, degreasers, and fuels in construction and other vehicles are among the types of existing hazardous materials used on campus that could increase if the 2020 LRDP is implemented.

The 2020 LRDP EIR will characterize hazardous materials use, transport and disposal on campus, will identify projected increases in these activities that could occur under the 2020 LRDP, and will evaluate potential impacts associated with these increased activities. The Tien Center would house office, classroom and library space, and would not significantly expand hazardous materials use on the campus.

L = LRDP Analysis	Impact to be	No Additional
T = Tien Center Analysis	Analyzed in	Analysis
L+T = LRDP and Tien Center Analysis	EIR	Required

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

<div align="center">L   T</div>

The 2020 LRDP EIR will characterize hazardous materials use in research, operations, maintenance, and construction, along with their transport, handling and disposal; the EIR will similarly characterize hazardous waste handling on the campus. It will identify projected increases in these activities that could occur under the 2020 LRDP, and will evaluate associated potential impacts, including potential risks from upset or accident conditions. The Tien Center would house office, classroom and library space, and would not release hazardous materials in the event of upset or accident conditions.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

<div align="center">L   T</div>

Campus activities under the 2020 LRDP could potentially emit hazardous emissions or handle hazardous materials, substances or waste within one-quarter mile of an existing or proposed school. The 2020 LRDP EIR will characterize hazardous materials transport, use and disposal on campus as well as increases projected in these activities under the 2020 LRDP. The 2020 LRDP EIR will also evaluate the potential impacts of such increased activity, including potential exposure of and effects on children. The Tien Center would house office, classroom and library space, and would not handle or emit hazardous materials within one-quarter mile of an existing or proposed school.

d) Be located on a hazardous materials site as listed on the "Cortese List" (compiled pursuant to Government Code Section 65962.5) and that, as a result, creates a significant hazard to the public or the environment?

<div align="center">L   T</div>

The Campus Park, its surrounds, and the Hill Campus currently have one hazardous materials site that is listed on the Department of Toxic Substances Control's Cortese List compiled pursuant to Government Code 665962.5: the UC Garage site located at 1952 Oxford Street, formerly the location of gasoline and oil dispensing operations dating to the 1920s. The site contaminants include: gasoline, diesel, dichloroethane, benzene, toluene, ethylbenzene and xylenes. The campus has completed an extensive underground storage tank removal and soil clean up program since the time of the 1990 LRDP and does not expect to perform further clean up activities on campus properties in Berkeley. The 2020 LRDP EIR will examine whether residual contaminants create a significant hazard to the public or the environment through implementation of the 2020 LRDP. (Soil clean up activities at campus properties in Richmond are underway, but reviewed under separate CEQA documentation and outside the scope of the 2020 LRDP.)

7. HYDROLOGY AND WATER QUALITY
Would the 2020 LRDP allow for development that would:

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

<div align="center">L+T</div>

Development under the 2020 LRDP could result in an increase of impermeable surface area, which could produce additional volume and pollutant loading of urban runoff. The Regional Water Quality Control Board has expressed water quality concerns for Strawberry Creek and its receiving waters (the San Francisco Bay) based on releases of sediment, bacteria, nutrients, metals and hydrocarbons. Additionally, increased water usage that could result from implementation of the 2020 LRDP could cause increases in wastewater discharges that could exceed waste discharge

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L+T = LRDP and Tien Center Analysis	**EIR**	**Required**

requirements for water quality or quantity. The 2020 LRDP EIR will evaluate impacts to water quality from runoff and characterize current waste discharge volumes of the campus and wastewater treatment capacity at EBMUD's wastewater treatment plant, and evaluate whether the implementation of the 2020 LRDP would result in a violation of applicable standards or waste discharge requirements. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

b) Substantially deplete groundwater supplies or quality, or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?   **L+T**

Groundwater supplies in Berkeley, on the Campus Park, its surrounds, and the Hill Campus, are not a local water supply source, and do not serve local or planned land uses (*City of Berkeley Draft General Plan EIR*, February 2001, p. 220). The 2020 LRDP EIR will only analyze this issue to the extent that the campus water supplier, EBMUD, may draw upon groundwater supplies and be impacted by potential additional demand under the 2020 LRDP. The EIR will describe anticipated water consumption and general system capacity to determine potential impacts on groundwater supplies. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

c) Substantially alter existing drainage patterns 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 substantial erosion, siltation or flooding on- or off- site?   **L+T**

Minor stream alterations are occasionally undertaken on the Berkeley campus to improve safety of people or property, or restore natural stream conditions. No substantial alterations have occurred since the 1990 LRDP, and none is anticipated under the 2020 LRDP. Development under the 2020 LRDP could increase impervious surfaces and could alter drainage patterns of building sites, which could result in increased runoff. The 2020 LRDP EIR will characterize campus-wide drainage patterns and will evaluate the potential for flooding as a result of increased runoff under the 2020 LRDP program. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

d) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?   **L+T**

Development under the 2020 LRDP could increase impervious surfaces, which could increase the volume of surface water runoff and increase levels of urban contaminants in stormwater. The 2020 LRDP EIR will evaluate if the existing/planned drainage system could accommodate increased runoff generated as a result of development under the 2020 LRDP. The 2020 LRDP EIR will also evaluate potential impacts associated with stormwater pollution under the 2020 LRDP. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

e) Otherwise substantially degrade water quality?   **L+T**

See responses to other hydrology and water quality topical questions, above.

L = LRDP Analysis T = Tien Center Analysis L+T = LRDP and Tien Center Analysis	Impact to be Analyzed in EIR	No Additional Analysis Required

f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

| | | **L+T** |

Strawberry Creek poses a flood hazard for portions of the Campus Park. The Campus Park would not be an identified housing area under the 2020 LRDP. Except for small areas located within the 100- and 500- year flood zones the majority of Berkeley is defined by the Federal Emergency Management Agency as being subject to minimal flooding. Housing proposed under the 2020 LRDP would not be constructed within a 100- or 500- year flood zone. Therefore, no impact would occur and no additional analysis is required.

g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

| **L+T** | | |

The 2020 LRDP EIR will evaluate the potential for development under the LRDP to occur within 100-year flood hazard zones and address the potential for construction in these zones to impede or redirect flood flows. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

h) 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?

| | | **L+T** |

The Campus Park, its surrounds, and the Hill Campus are outside the inundation hazard area for Berryman Reservoir. The 2020 LRDP and the Tien Center would therefore not expose people or structures to inundation as a result of dam or levee failure.

i) Be subject to inundations by seiches, tsunamis, or mudflows?

| | | **L+T** |

The Campus Park, its surrounds, and the Hill Campus are sufficiently inland and at a sufficiently high elevation that tsunamis are not an anticipated risk. No large, open bodies of water that would represent a substantial seiche risk are located on or around campus properties. Possible mudflows in the Hill Campus area would not be of a scale to risk inundation.

8. LAND USE
Would the 2020 LRDP allow for development that would:

a) Physically divide an established community?

| | | **L+T** |

The City of Berkeley has developed around and in conjunction with the campus, and their social and physical histories are interrelated. Today, Berkeley's city and campus communities are profoundly interwoven. The 2020 LRDP would not include any development that would physically divide an established community.

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b) Conflict with any applicable land use plan, policy or regulation of **L+T**
an agency with jurisdiction over the project adopted for the purpose
of avoiding or mitigating an environmental effect ?

The University of California is constitutionally exempt from local land use plans and regulations. However, the City of Berkeley General Plan, and the general plans for other cities within the scope of the 2020 LRDP, will inform the land use policies in the 2020 LRDP for properties outside the Campus Park and Hill Campus, as will the Southside Plan, once adopted by the City of Berkeley. The land use analysis in the 2020 LRDP EIR will then focus upon potential conflicts between existing on- and off-campus uses and new campus uses that could be developed under the 2020 LRDP. The proposed Tien Center will be analyzed for consistency with the land use policies in the 2020 LRDP.

c) Conflict with any applicable habitat conservation plan or natural **L+T**
community conservation plan?

The Campus Park, its surrounds, and the Hill Campus are not located within any area designated for an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. No additional analysis is required. See also discussion above under Biological Resources, Item 3.a) addressing critical habitat area.

9. NOISE
Would the 2020 LRDP allow for development that would:

a) Expose people to or generate noise levels in excess of standards **L+T**
established in the local general plan or noise ordinance, or applicable
standards of other agencies, without mitigation?

Increases in traffic, mechanical equipment associated with new structures, and increases in campus population could result in potential long-term increases in noise levels. Additionally, operation of construction equipment could result in substantial short-term noise increases. The 2020 LRDP EIR will model the magnitude of these noise increases, and will evaluate whether the increased noise levels associated with implementation of the 2020 LRDP would exceed applicable standards or ordinances. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

b) Result in a substantial permanent increase in ambient noise levels **L+T**
in the project vicinity, without appropriate mitigation?

The 2020 LRDP EIR will model the magnitude of potential permanent noise increases under the 2020 LRDP, and will evaluate whether the increased permanent noise levels would exceed applicable standards or ordinances. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

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c) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity, without appropriate mitigation?	**L+T**	

Operation of construction or other equipment could result in substantial temporary or short-term noise increases. The 2020 LRDP EIR will use current noise modeling methods to predict the magnitude of these temporary noise increases, and will evaluate whether the increased temporary noise levels associated with implementation of the 2020 LRDP would exceed applicable standards or ordinances without appropriate mitigation. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

d) Expose people to or generate excessive ground-borne vibration or ground-borne noise levels, without mitigation?	**L+T**	

Construction activities, particularly if pile driving is required, could result in generation of excessive groundborne vibration or groundborne noise levels. The EIR will evaluate the potential impacts of these construction activities. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

10. POPULATION AND HOUSING
Would the 2020 LRDP allow for development that would:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	**L**	**T**

The proposed 2020 LRDP would accommodate an increase in enrollment during the proposed planning horizon. Related increases in the number of staff and faculty would occur, as outlined in the project description (above). The EIR will estimate the combined demand for University housing and other housing within the City of Berkeley and adjacent areas. The EIR will evaluate the potential for this demand to exceed the projected housing supply, and determine whether such growth could result in the demand for additional housing, goods and services, that could induce additional population growth. The Tien Center would house existing campus staff and library services and could only house small incremental increases in staff. The Tien Center proposal would not support and is not associated with an increase in enrollment. Project-specific impacts of the Tien Center on population and housing would therefore not be analyzed further in the 2020 LRDP EIR.

b) Displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere?		**L+T**

Implementation of the 2020 LRDP is not anticipated to require the displacement of people or housing. Further, the 2020 LRDP would propose additional housing that is not anticipated to require displacement of existing housing facilities. Therefore, no further analysis is required. If future projects are proposed that would require the displacement of existing housing, the effects of such proposed displacement would be evaluated as required by CEQA on a project-specific basis.

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11. PUBLIC SERVICES
--Police Protection
Would the 2020 LRDP allow for development that would:

a) Result in the need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, service times, or other performance objectives for police protection?   **L+T**

Police protection services for the Berkeley campus are provided by the University of California Police Department and the City of Berkeley Police Department. The 2020 LRDP EIR will evaluate whether implementation of the 2020 LRDP would increase the demand for police protection and compare the potential increase in demand to existing and planned equipment and staff levels. The EIR will evaluate the potential impacts of new, expanded, or altered facilities, if they are required to meet an increase in demand. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

PUBLIC SERVICES
--Fire and Emergency Protection
Would the 2020 LRDP allow for development that would:

b) Result in the need for new or physically altered fire or emergency medical services facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, service times or other performance objectives for fire and emergency protection?   **L+T**

The 2020 LRDP EIR will evaluate whether implementation of the 2020 LRDP would increase demand for fire protection services and compare the potential increase in demand with existing and planned equipment and staff 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 project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

c) Expose people or structures to a significant risk of loss, injury or death involving wildland fires?   **L**   **T**

There is an annual seasonal fire risk in the East Bay hills due to their mix of scrub and conifer and eucalyptus stands. The risk becomes particularly pronounced during the periodic one- or two- day shifts from the normal northwesterly winds to 'Diablo' winds blowing in from the warm, dry regions to the east. Twentieth century Diablo wind fires have burned over ten times the acreage of normal wind condition fires, and include the firestorms of 1923 and 1991. The generally steep terrain and poor roads in the Oakland and Berkeley hills present enormous obstacles to fire response, and some areas such as Claremont Canyon, served by only a single road, may be indefensible in Diablo wind conditions. To reduce risks from and to campus lands, the campus conducts an annual fuel management program on campus properties. The program is designed and guided by the UC Fire Mitigation Committee, which is chaired by a campus forestry professor and staffed by a fire ecology consultant who co-chairs all committee meetings. The campus is also one of eight member agencies in the Hills Emergency Forum (HEF), a consortium of jurisdictions mutually concerned with fire and disaster risks in the East Bay area. The Campus coordinates its fire fuel management activities with all HEF members, which include the Cities of Oakland, Berkeley, and El Cerrito, the East Bay Regional Park District, the East Bay Municipal Utility District, the Lawrence Berkeley National Laboratory, and the California Department of Forestry and Fire Protection.

	Impact to be Analyzed in EIR	No Additional Analysis Required
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Development under the 2020 LRDP could potentially expose people or structures to risk of loss, injury or death due to wildland fires by bringing additional population to the area. The 2020 LRDP EIR will assess the effects of growth under the 2020 LRDP against the campus' ability to protect life and property threatened by wildland fire. At its urban Campus Park site the risk of wildland fires to the proposed Tien Center would be minimal, and this impact would not be studied further in project-specific analysis for the Tien Center.

d) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?   **L+T**

The campus Office of Emergency Preparedness (OEP) (http://public-safety.berkeley.edu/oepweb/) has prepared a Multi Hazard/Disaster Response handbook and regularly conducts trainings and updates rosters to maintain readiness in the event of an emergency. Development under the 2020 LRDP could potentially exceed the campus' emergency response capabilities, which could impair implementation of the disaster response plan. New development projects under the 2020 LRDP may have the potential to physically interfere with the campus response. The 2020 LRDP EIR will characterize the campus' emergency response plans and capabilities, and will assess the effects of growth under the 2020 LRDP on the campus' ability to manage emergencies. The 2020 LRDP EIR will also address the potential for the Tien Center to impair implementation of, or interfere with, emergency response efforts.

e) Result in inadequate emergency access?   **L+T**

The proposed 2020 LRDP would result in land use changes and cause roadway changes that could affect or hinder emergency access. The 2020 LRDP EIR will evaluate potential impacts to emergency access resulting from the 2020 LRDP, and will evaluate project-specific emergency access for the proposed Tien Center.

PUBLIC SERVICES
--Schools
Would the 2020 LRDP allow for development that would:

f) Result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, service times or other performance objectives for schools?   **L**   **T**

Increased student enrollment, combined with associated increases in faculty and staff, may increase the number of school-age children that could enroll in local schools. The 2020 LRDP EIR will evaluate potential effects of increased enrollment on the capacity of local schools, as well as the potential environmental impacts of new, expanded or altered facilties, if any are required to meet an increase in demand. The Tien Center would house existing campus staff and library services and could only house small incremental increases in staff. The Tien Center proposal would not support and is not associated with an increase in enrollment. Project-specific impacts of the Tien Center on schools would therefore not be analyzed further in the 2020 LRDP EIR.

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PUBLIC SERVICES
--Parks and Recreation
Would the 2020 LRDP allow for development that would:

g) Result in the need for new or physically altered parks and recreational facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, service times or other performance objectives?

       L   **T**

Campus recreational facilities, including gymnasiums, pools, sport fields, ball courts, and fitness centers, are primarily used by UC students, faculty and staff. The campus population also uses community facilities. Increased student enrollment, combined with the associated increase in faculty and staff, may increase demand for existing or planned neighborhood, community and regional parks. The 2020 LRDP EIR will evaluate the potential impacts of new, expanded and/or altered facilities, if they are needed to meet an increase in demand. The Tien Center would house existing campus staff and library services and could only house small incremental increases in staff. The Tien Center proposal would not support and is not associated with an increase in enrollment. Project-specific impacts of the Tien Center on parks and recreation would therefore not be analyzed further in the 2020 LRDP EIR.

h) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

       L   **T**

The 2020 LRDP EIR will evaluate whether the increase in campus population would exceed the capacity of existing neighborhood, community, and regional parks or other regional facilities, contributing to their substantial physical deterioration. The Tien Center would house existing campus staff and library services and could only house small incremental increases in staff. The Tien Center proposal would not support and is not associated with an increase in enrollment. Project-specific impacts of the Tien Center on parks and recreation would therefore not be analyzed further in the 2020 LRDP EIR.

i) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

       L   **T**

The 2020 LRDP would be a general land use plan intended to guide the pattern of campus development and would not articulate specific projects or structures other than those proposed as part of the Tien Center proposal. However, additional recreational uses may be developed as part of the implementation of the 2020 LRDP; therefore, the EIR will evaluate the potential effects of recreational uses within the context of the effects of general campus development. The Tien Center would house existing campus staff and library services and could only house small incremental increases in staff. The Tien Center proposal would not support and is not associated with an increase in enrollment. Project-specific impacts of the Tien Center on parks and recreation would therefore not be analyzed further in the 2020 LRDP EIR.

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12. TRANSPORTATION AND TRAFFIC

Would the 2020 LRDP allow for development that would:

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)?	**L**	**T**

Implementation of the proposed 2020 LRDP would increase the amount of campus building space, on-campus population, and the number of parking spaces on campus, which could result in increased vehicular traffic on local streets and the adjacent regional highway system. The EIR will analyze the impact of additional LRDP-related and cumulative traffic on the local street networks, including intersection capacity, and the regional highway network, including the impact on the capacity of Congestion Management Program designated roadways and freeway ramps and adjacent segments. The campus anticipates applying criteria that mirror criteria used in the City of Berkeley General Plan Draft EIR to measure this impact. The Tien Center would house existing campus staff and library services and could only house small incremental increases in staff. The Tien Center proposal would not support and is not associated with an increase in enrollment. Project-specific impacts of the Tien Center on traffic, circulation and parking would therefore not be analyzed further in the 2020 LRDP EIR.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	**L**	**T**

The EIR will analyze the impact of additional 2020 LRDP-related and cumulative traffic on the local street networks, including intersection capacity, the regional highway network, and including roads and highways designated by the Alameda County Congestion Management Agency. The Tien Center would house existing campus staff and library services and could only house small incremental increases in staff. The Tien Center proposal would not support and is not associated with an increase in enrollment. Project-specific impacts of the Tien Center on traffic, circulation and parking would therefore not be analyzed further in the 2020 LRDP EIR.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?		**L+T**

Development associated with the 2020 LRDP or the Tien Center is not anticipated to affect or contribute air traffic to existing patterns. No additional analysis is required.

d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Create unsafe conditions for pedestrians or bicyclists?	**L+T**	

The 2020 LRDP is a general land use plan intended to guide the pattern of campus development and does not articulate specific projects or structures other than the Tien Center. The EIR will evaluate the potential for future changes to the campus circulation system or development of incompatible uses to increase hazards to traffic, pedestrians or bicyclists. The 2020 LRDP EIR would include project-specific safety analysis of circulation considerations for the proposed Tien Center.

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L+T = LRDP and Tien Center Analysis	EIR	Required

e) Result in inadequate parking capacity?   **L+T**

The LRDP 2020 EIR will evaluate the adequacy of existing and proposed campus parking, 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 2020 LRDP to address trip and/or parking demand reduction strategies.   The Tien Center would house existing campus staff and library services and could only house small incremental increases in staff. The Tien Center proposal would not support and is not associated with an increase in enrollment. However, the site for initial phase construction of the Tien Center is located on an existing surface parking lot on the Campus Park; the project-specific analysis of the Tien Center parking impacts will rely on the program-level evaluation of the 2020 LRDP to address this issue.

f) Conflict with adopted policies, plans, or programs supporting   **L+T**
alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed 2020 LRDP will describe alternative transportation modes and include policies to promote and expand their use; the 2020 LRDP EIR will analyze whether the implementation of the 2020 LRDP would conflict with applicable LRDP policies supporting alternative transportation.   The 2020 LRDP EIR will also address the project-specific impacts of the proposed Tien Center.

13. UTILITIES AND SERVICE SYSTEMS
--Water
Would the 2020 LRDP allow for development that would:

a) Exceed the capacity of existing and planned water entitlements   **L+T**
and resources?

Implementation of the proposed 2020 LRDP would increase the amount of campus building space and the campus daytime and residential population, which could result in an increase in water usage. The 2020 LRDP EIR will evaluate whether possible water demand increases would exceed available or planned entitlements or capacity; the environmental impacts of new, expanded, or altered facilities , if any are required to meet the increased demand, would also be evaluated in the EIR. Using methodologies derived from California State Senate Bills 221 and 610, the 2020 LRDP EIR will address water supply assessments. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

b) Require or result in the construction of new or expansion of   **L+T**
existing water facilities, the construction of which could cause
significant adverse effects?

The 2020 LRDP EIR will evaluate whether projected water demand increases associated with increased population would exceed available or planned entitlements or capacity; the environmental impacts of new, expanded, or altered facilities , if any are required to meet this increased demand, would also be evaluated in the EIR. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

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UTILITIES AND SERVICE SYSTEMS
--Wastewater
Would the 2020 LRDP allow for development that would:

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

L+T

The East Bay Municipal Utility District operates a wastewater treatment plant that serves the Berkeley area. The 2020 LRDP EIR will characterize the capacity of the EBMUD plant and analyze the impact of projected increases due to development under the 2020 LRDP. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

d) Require or result in the construction of new or expansion of existing wastewater treatment facilities, the construction of which could cause significant adverse effects?

L+T

Growth under the 2020 LRDP could increase the quantity of wastewater discharged to wastewater treatment facilities. The 2020 LRDP EIR will evaluate the increased demand on wastewater treatment and conveyance facilities under the 2020 LRDP, and evaluate potential impacts associated with any new or expanded facilities, if any would be required to meet this demand.   The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

e) Exceed wastewater treatment requirements of the Regional Water Quality Control Board?

L+T

The 2020 LRDP EIR would examine the potential for growth under the 2020 LRDP to exceed wastewater treatment requirements of the Regional Water Quality Control Board.   The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

UTILITIES AND SERVICE SYSTEMS
--Stormwater
Would the 2020 LRDP allow for development that would:

f) Require or result in the construction of new or expansion of existing stormwater drainage facilities, the construction of which could cause significant adverse effects?

L+T

Development under the 2020 LRDP could increase impervious surfaces, which could increase the volume of stormwater drainage. The 2020 LRDP EIR will characterize campus-wide drainage, will evaluate the increased demand for stormwater drainage facilities under the 2020 LRDP, and will evaluate potential impacts associated with any new or altered drainage facilities, if any would be required to meet this demand. The 2020 LRDP EIR will also address the project-specific stormwater drainage improvements needed to serve the proposed Tien Center.

	Impact to be Analyzed in EIR	No Additional Analysis Required
L = LRDP Analysis		
T = Tien Center Analysis		
L+T = LRDP and Tien Center Analysis		

UTILITIES AND SERVICE SYSTEMS
-- Solid Waste
Would the 2020 LRDP allow for development that would:

g) Violate any applicable federal, state, and local statutes and regulations related to solid waste?   **L+T**

The EIR will evaluate the impact of implementation of the 2020 LRDP on campus compliance with applicable statutes and regulations related to solid waste. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

h) Exceed the permitted capacity of a landfill that serves the project's solid waste disposal needs?   **L+T**

Implementation of the proposed 2020 LRDP could result in an increase in campus solid waste generation, including debris from construction activities. The 2020 LRDP EIR will evaluate whether existing landfill capacity is sufficient to accommodate growth under the 2020 LRDP. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

UTILITIES AND SERVICE SYSTEMS
--Energy
Would the 2020 LRDP allow for development that would:

i) Require or result in the construction of new or expansion of existing energy production and/or transmission facilities, the construction of which could cause significant adverse effects?   **L+T**

Implementation of the 2020 LRDP could result in the consumption of additional energy, including electricity, natural gas and other fossil fuels. The EIR will quantify the potential net increase in campus-related energy usage and determine whether implementation of the LRDP would require new or expanded energy production and/or transmission facilities which may cause adverse effects. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

j) Would the project encourage the wasteful or inefficient use of energy?   **L+T**

Implementation of the 2020 LRDP could result in the consumption of additional energy, including electricity, natural gas and other fossil fuels. The 2020 LRDP would be responsive to Regents' policy on sustainability (http://www.ucop.edu/regents/regmeet/june03/102june.pdf). The EIR will quantify the potential net increase in campus-related energy usage and examine whether implementation of the LRDP would encourage wasteful or inefficient energy use. The project-specific analysis of the Tien Center will rely on the program-level evaluation of the 2020 LRDP to address this issue.

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UTILITIES AND SERVICE SYSTEMS
-- Steam and Chilled Water
Would the 2020 LRDP allow for development that would:

k) Require or result in the construction of new or expansion of existing steam and/or chilled water facilities, the construction of which could cause significant adverse effects?   **L+T**

The 2020 LRDP EIR will characterize existing steam and chilled water services, will evaluate the potential increased demand for these services under the 2020 LRDP, and will evaluate potential impacts associated with any new or altered facilities required to meet this demand. The 2020 LRDP EIR will also address the project-specific steam and chilled-water improvements that may be needed to serve the proposed Tien Center.

14. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?   **L+T**

As indicated above, implementation of the 2020 LRDP has the potential to result in significant impacts that could degrade the quality of the environment. Because the campus and its surrounds are densely developed, the potential for the 2020 LRDP to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal is considered low. The 2020 LRDP EIR will evaluate the 2020 LRDP and the Tien Center for their potential to result in significant impacts that could degrade the quality of the environment, reduce habitat for a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other projects, and the effects of probable future projects)?   **L+T**

The 2020 LRDP EIR will evaluate whether impacts associated with growth under the 2020 LRDP (including the proposed Tien Center), in combination with past, current, and reasonably foreseeable future projects, have the potential to be cumulatively considerable.

L = LRDP Analysis T = Tien Center Analysis L+T = LRDP and Tien Center Analysis	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?	**L+T**	

As discussed in the checklist sections above, the proposed 2020 LRDP and Tien Center have the potential to result in significant impacts. The 2020 LRDP EIR will evaluate if these impacts have the potential to result in substantial adverse effects on human beings, either directly or indirectly.

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GEOLOGY, SOILS AND SEISMICITY

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APPENDIX B.1
GEOLOGY, SOILS & SEISMICITY BACKGROUND

This appendix contains supplementary information about local geology, soils and faults within the 2020 LRDP area. Much of this information was previously published in the UC Berkeley *1990 Long Range Development Plan EIR*. Information has been updated where new information was available.

B.1.1 TOPOGRAPHY

UC Berkeley is located on the western slopes of the Berkeley Hills. Ground elevations in the 2020 LRDP area range from about 160 feet above mean sea level (+160 feet msl) in the west to about +1,200 feet msl at the Lawrence Hall of Science, and about +1,600 feet msl at Grizzly Peak Blvd. Elevations at the west end of the Campus Park are about +200 feet msl. Slopes in the Campus Park and adjacent areas are shallow, ranging from less than two percent west of Shattuck Avenue to about five percent west of Gayley Road. East of Gayley Road, slopes rise from about ten percent at the Greek Theatre to more than 50 percent in some areas at the heads of Strawberry and Claremont Creeks.[1]

The Campus Park and Hill Campus can be defined by two distinct landforms: most of the Campus Park is on an alluvial plain, and the Hill Campus (plus a portion of Southside east of the Hayward fault) is in the Berkeley Hills.

B.1.2 BEDROCK

The UC Berkeley campus is divided by the Hayward fault. Bedrock of the Cretaceous Franciscan assemblage has been mapped on the west side of the Hayward fault. This assemblage consists of sandstones, shales, and blue schists. On the east side of the Hayward fault, the bedrock consists of micaceous claystones, shale, sandstones and siltstones ranging in age from late Cretaceous to Tertiary.[2] Most of the underlying geologic material in the LRDP Housing Zone is Temescal formation.[3]

B.1.3 SEDIMENTS

West of the Hayward fault and overlying the bedrock is the Quaternary Temescal formation, consisting of alluvial fan deposits that originate from the Berkeley Hills. Composition of this material varies greatly, but is predominantly clayey gravel containing rocks of the Franciscan assemblage and of igneous origin. The Franciscan rocks are greywacke, shale, chert, conglomerate, schist and limestone. Foundation conditions of the Temescal formation typically are excellent to fair, with good to fair earthquake stability.[4]

East of the fault, colluvium and small alluvial fan deposits dominate the surficial geologic materials in the Berkeley Hills. Colluvium is the debris that moves downslope as soil creep, soil flows, small landslides, and slope wash. Within the developed part of the Campus Park, much of the natural surficial geologic materials have been covered by artificial fill.[5]

B.1.4 SOILS

West of the Hayward fault, most of the native soil has been covered, graded, or otherwise modified by campus development. Native soils still existing, although not necessarily exposed, include the Xerorthent, Millsholm, Los Osos, and Tierra associations.[6] A January 2000 geotechnical investigation of the Campus Park and its immediate area concluded that older alluvium overlies the Franciscan rocks across most of the Campus Park. The alluvium typically comprises very stiff sandy clay.[7] Over most of the Campus Park, the depth to rock is less than 50 feet.[8]

East of the Hayward fault, three different soils dominate the Hill Campus. Maymen loam covers about one-third of the steep upland slopes. It is a shallow acidic soil (10 to 20 inches deep over shale) in which runoff is rapid to very rapid and the risk of erosion is high to very high. The Maymen-Los Gatos complex covers about one-quarter of the steep upland slopes. These loamy soils are shallow to moderately deep (10 to 40 inches over shale and sandstone) and some are highly acidic. Runoff and erosion hazards are identified with the Maymen loam.[9]

The Xerorthent-Millsholm complex covers about one-fifth of steep upland slopes. Soil depths vary from shallow to moderately deep. They are moderately acidic to slightly alkaline loams, clays and silty clay loams, developed on sandstone, siltstone or alluvium, and have runoff and erosion characteristics identical with the Maymen loam.[10] Xerorthent-Millsholm and Maymen soils have a low shrink-swell potential.[11]

Most of the LRDP Housing Zone consists of Tierra-Urban land soils. These soils consist of moderately well drained loams.[12] Tierra and Azule soils cover a large portion of the LRDP Housing Zone. Tierra soils have low to high shrink-swell potential, while Azule has a moderate to high shrink-swell potential.[13]

B.1.5 SEISMICITY

BACKGROUND

The strength of an earthquake is generally expressed in two ways: *magnitude* and *intensity*. Magnitude, which is expressed in whole numbers and decimals (e.g. 7.1), is a measure that depends on the seismic energy radiated by the earthquake as recorded on seismographs. The original magnitude scale is the Richter scale.[14] Earthquakes with magnitude of about 2.0 or less on the Richter scale are usually called micro-earthquakes and are not commonly felt by people. Events with magnitudes of about 4 and up are felt by most people. The Richter Scale has no upper limit and is not used to express damage.[15]

The most commonly used magnitude scale today is the Moment Magnitude (Mw) scale, which is related to the physical size of fault rupture and the movement across a fault. Mw is based on the seismic moment at the source, or hypocenter, of the earthquake. [16] The Moment Magnitude scale is a way of rating the seismic moment of an earthquake with a simple, logarithmic numerical scale similar to the original Richter magnitude scale. Because it does not "saturate" the way local

magnitude does, it is used for large earthquakes – those that would have a local magnitude of about 6 or larger.[17]

The force of an earthquake at a particular place is measured on the Modified Mercalli Intensity Scale, which is a subjective ranking of earthquakes' effects on persons and structures. It is expressed in Roman numerals from I to XII. Lower numbers on the scale indicate less severe shaking. Table B.1-1 summarizes the Modified Mercalli Intensity Scale in relation to the Richter Scale.

TABLE B.1-1 **MODIFIED MERCALLI AND RICHTER SCALES**[18]

Richter Magnitude	Modified Mercalli Category	Expected Modified Mercalli Maximum Intensity at Epicenter
2	I-II	Usually detected only by instruments
3	III	Felt indoors
4	IV-V	Felt by most people Slight damage
5	VI-VII	Felt by all Many frightened and run outdoors Damage minor to moderate
6	VII-VIII	Everybody runs outdoors Damage moderate to major
7	IX-X	Major damage
8+	X-XII	Total and major damages

ACTIVE FAULTS

Active faults in the LRDP area are discussed in Chapter 4.5.

INACTIVE FAULTS

There are several inactive faults in the LRDP area. The Wildcat fault in the Hill Campus is a minor fault that cuts late Cenozoic strata, striking sub-parallel to the Hayward fault past the Botanical Garden and through the Field Station for Behavioral Research.[19] There have been no studies indicating Holocene activity on the Wildcat fault.[20] The California Division of Mines and Geology (CDMG) does not designate Wildcat Fault as an Alquist-Priolo Earthquake Fault Zone.

The Strawberry Canyon fault is a buried, east-west trending linear feature in the Cretaceous bedrock. It is cut off by the Hayward and the Wildcat faults.[21] It is unknown whether Holcene Activity studies have been done on the Strawberry Canyon Fault but, as it appears to be older than both the Wildcat and Hayward faults, it is not considered to be active.[22]

From a probabilistic standpoint,[23] the slip rates of the Wildcat and Strawberry Canyon fault would be so low as to not impact seismic hazard at all even if both were active. The only potential seismic hazards they would pose is ground rupture along the surface trace. In other words, only structures built directly on these faults would be potentially endangered. This is because of the large extent of seismic activity from other faults in the region. Even if one uses a deterministic model,[24] the ground motions at any site along the Wildcat or Strawberry Canyon faults will be dominated by ground motions from characteristic earthquakes on the Hayward fault, because of its proximity and its characteristic earthquake magnitude, which would be much larger than that of the other faults discussed here.[25]

The Lawrence Hall fault complex refers to a web of closely spaced, short, intersecting linear features northwest of the Lawrence Hall of Science. The area has been studied since the 1960s and 1970s, when the complex was originally postulated. Past investigation indicates the complex is a sheared contact zone between the Orinda and Moraga formations and is not a set of faults.[26]

Other short, discontinuous faults mapped in the Hill Campus during the 1970s are identified as sheared contact zones in the ancient bedrock. These faults are not active and pose no threat of surface rupture to the area.

EARTHQUAKE PROBABILITY

As stated in Chapter 4.5, the San Andreas fault, the Hayward-Rodgers Creek fault, and the Calaveras fault pose the greatest threat because they have high quake odds and run through the Bay Area's urban core.[27] The Hayward fault and the Calaveras fault are each capable of generating a maximum credible earthquake (MCE)[28] of M7.5 on the Richter scale,[29] and of producing maximum earthquakes ranging from Mw 6.9 to 7.5 and Mw 6.8 respectively.[30] The northern section of the San Andreas fault could generate an MCE of M8.3[31] and earthquakes of up to Mw 8.0.[32] The Rogers Creek fault, located about 20 miles northwest of the Campus Park, also has the potential to generate seismic activity in the City of Berkeley.[33] It is considered capable of producing a maximum magnitude earthquake of Mw 7.0.[34] Earthquakes of these magnitudes are sufficient to create ground accelerations in bedrock and unconsolidated deposits, and severe enough to cause major damage to structures, foundations and underground utility lines.[35] Other faults that are sources for earthquakes that may result in strong ground shaking in the Bay Area include the Concord-Green Valley, Northern Calaveras, West Napa, and Clayton-Marsh Creek-Greenville faults.

The Hayward fault is of particular concern at UC Berkeley because it crosses the campus and because of the density of urban development along it and the major infrastructure lines that cross it. The seismicity on the Hayward fault has been relatively low in the past 45 years, with only four earthquakes of M4.0 or greater; however, the fault has an extensively documented history of higher activity. At least ten earthquakes of M6.0 or greater have occurred within 20 miles of this fault since 1836. In 1868, an earthquake estimated at about M7 ruptured about 30 miles of the Hayward fault with a maximum reported offset of about three feet.[36]

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[2] California Geological Survey, *GIS Data for the Geologic Map of California,* DMG CD 2000-007, 2000.

[3] Jennings, C. W. and J. L. Burnett, "Geologic Map of California, San Francisco Sheet", in *Geologic Atlas of California*, O.P. Jenkins (ed.), California Division of Mines and Geology, Sacramento, 1961; Radbruch, D. H., *Areal and Engineering Geology of the Oakland East Quadrangle*, California, USGS, Geologic Quadrangle Map GQ-769, 1969, scale 1:24,000.

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[9] U.S. Department of Agriculture (USDA), Natural Resources Conservation Service, S*oil Survey of Alameda County, Western Part*, 1981, page 18-19. Map Sheets No. 1,2,7.

[10] U.S. Department of Agriculture (USDA), Natural Resources Conservation Service, S*oil Survey of Alameda County, Western Part*, 1981, page 29.

[11] U.S. Department of Agriculture (USDA), Natural Resources Conservation Service, S*oil Survey of Alameda County, Western Part*, 1981, page 99.

[12] U.S. Department of Agriculture (USDA), Natural Resources Conservation Service, *General Soils Map of Alameda County, Western Part*, 1981, General Soil Map, page 5.

[13] U.S. Department of Agriculture (USDA), Natural Resources Conservation Service, S*oil Survey of Alameda County, Western Part*, 1981, pages 98.

[14] California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002, http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/note_32/note_32.pdf, retrieved February 19, 2004.

[15] California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002.

[16] The seismic moment of an earthquake is determined by the strength or resistance of rocks to faulting multiplied by the area of the fault that ruptures and by the average displacement that occurs across the fault during the earthquake. (Source: California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002.)

[17] Southern California Earthquake Data Center, *Investigating Earthquakes through Regional Seismicity*, page 19, http://www.data.scec.org/Module/sec3pg19.html, retrieved on February 18, 2004.

[18] Association of Bay Area Governments (ABAG), "Modified Mercalli Intensity Scale", http://www.abag.ca.gov/bayarea/eqmaps/doc/mmi.html, retrieved on April 2, 2004.

[19] California Department of Conservation, Mines and Geology, *GIS Data for the Geologic Map of California,* DMG CD 2000-007, 2000; Wakabayashi, John, California Registered Geologist No. 5890. Personal communication with DC&E, November 22, 2003.

[20] Wakabayashi, John, California Registered Geologist No. 5890. Personal communication with DC&E, November 20, 2003.

[21] California Department of Conservation, Mines and Geology, *GIS Data for the Geologic Map of California,* DMG CD 2000-007, 2000.

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[23] A probabilistic model assumes that the hazard is dominated by the highest slip rate faults closest to the site of interest and those of such faults that produce the biggest earthquakes.

[24] A deterministic model assumes that all considered faults will rupture in characteristic earthquakes during the design lifetime, regardless of probability.

[25] Wakabayashi, John, California Registered Geologist No. 5890. Personal communication with DC&E, November 20, 2003.

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[27] U.S. Geological Survey (USGS), Fact Sheet 039-03, "Is a Powerful Quake Likely to Strike in the Next 30 Years?", 2003, http://geopubs.wr.usgs.gov/fact-sheet/fs039-03/fs039-03.pdf, retrieved April 4, 2004.

[28] The maximum credible earthquake is defined as the earthquake which produces the greatest levels of ground motion at the site as a result of the largest magnitude earthquake that could reasonably occur along the recognized faults or within a particular seismic source. (Source: http://www.usace.army.mil/publications/eng-pamphlets/ep1110-2-12/c-4.pdf, retrieved on February 18, 2004).

[29] UC Berkeley, *Long Range Development Plan Draft Environmental Impact Report*, January 1990, page 4.7-2.

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[31] UC Berkeley, *Long Range Development Plan Draft Environmental Impact Report*, January 1990, page 4.7-2.

[32] Geomatrix Consultants, *Appendix One: Geologic Hazards Investigation Central Campus, University of California at Berkeley*, January 2000, page 8, prepared as part of *Economic Benefits of a Disaster Resistant University* by Dr. Mary Comerio, Institute of Urban and Regional Development, UC Berkeley, April 2000.

[33] *City of Berkeley Draft General Plan EIR*, February 2001, page 197.

[34] Geomatrix Consultants, *Appendix One: Geologic Hazards Investigation Central Campus, University of California at Berkeley*, January 2000, page 7, prepared as part of *Economic Benefits of a Disaster Resistant University* by Dr. Mary Comerio, Institute of Urban and Regional Development, UC Berkeley, April 2000.

[35] UC Berkeley, *Long Range Development Plan Draft Environmental Impact Report*, January 1990, page 4.7-2.

[36] UC Berkeley, *Long Range Development Plan Draft Environmental Impact Report*, January 1990, page 4.7-11.

APPENDIX B.2
UNIVERSITY POLICY ON SEISMIC SAFETY

Original Issue/Approval Date: January 20, 1975
Latest Revision: January 17, 1995 [Editor's Revision: April 20, 2000]

B.2.1 POLICY

It is University policy – to the maximum extent feasible by present earthquake engineering practice – to acquire, build, maintain, and rehabilitate buildings and other facilities which provide an acceptable level of earthquake safety, as defined in this policy, for students, employees, and the public who occupy those buildings and other facilities at all locations where University operations and activities occur. It is also University policy to repair University buildings and other facilities damaged in an earthquake as set forth below in the section entitled Repair of Buildings and Other Facilities Damaged by Earthquakes. Feasibility is to be determined by weighing the practicability and cost of protective measures against the gravity and probability of injury resulting from a seismic occurrence.

- **Responsibility**. The President is responsible for overall administration of this policy and shall provide for (1) interpretation or clarification of the policy as may be required; (2) development of seismic safety criteria, standards, and guidelines supplementary to the policy; (3) evaluation of seismic safety programs and review of specific proposals for the abatement of seismic hazards; and (4) determination of University-wide priorities among seismic safety projects and other projects proposed for inclusion in the Capital Improvement Program.

The President shall assign specific duties and authority to individuals within the Office of the President who may engage professional consultants or other specialists to advise and assist them in matters involving seismic safety.

The Chancellors, Senior Vice President-Business and Finance, Vice President-Agriculture and Natural Resources, Director-Lawrence Berkeley Laboratory, Director-Lawrence Livermore Laboratory, and Director-Los Alamos Scientific Laboratory are the officials responsible for taking all reasonable steps to assure protection of persons under their respective jurisdictions against the effects of earthquakes which could result in the loss of life or injury to persons. Each responsible official shall assign specific duties and authority to individuals under his or her jurisdiction for the purpose of discharging this responsibility.

- **Program for Abatement of Seismic Hazards**. Each responsible official shall develop a program for abatement of seismic hazards in existing buildings and other facilities within their respective jurisdictions and shall establish priorities for seismic safety projects in accordance with this policy. Each responsible official shall coordinate proposed seismic correctional work with (1) proposed fire protection work (see University policy on fire protection, issued September 22, 1971) [Editor's Note: In place of the aforementioned policy on fire protection, the University currently follows, as policy, fire protection regulations of CCR, Title 24, Part 9.], (2) other proposed work involving environmental health and safety considerations, and (3) reasonable and prudent rehabilitation for functional and programmatic improvements.

The program for abatement of seismic hazards shall include identification and temporary and permanent correction of potential earthquake falling, sliding, or rupturing hazards such as, but not limited to, interior and exterior building elements, utilities, equipment, fixtures, furnishings, and other contents which could be dislodged, fall, overturn, slide, or rupture during seismic disturbances. Temporary measures to reduce the risks of injury pending permanent corrective action shall be considered and implemented if feasible.

- **The Consulting Structural Engineer**. Each responsible official shall secure the services of one or more consulting structural engineers experienced in field investigations and analyses of damage in earthquakes. The consulting structural engineer shall be required to examine existing buildings and other facilities as directed by the responsible official and to submit to the responsible official reports on the adequacy of the resistance of such campus buildings and other facilities to seismic forces based on (1) conformance to the current seismic provisions of California Code of Regulations (CCR), Title 24, California Building Standards Code, or local seismic requirements (e.g., city or county building regulations), whichever requirements are more stringent; and (2) the consulting structural engineer's professional evaluation of their anticipated seismic performance, expressed in terms of Good, Fair, Poor, or Very Poor, as defined in Appendix A, with respect to degree of risk of injury to persons but not necessarily in conformance with the above specific seismic provisions. For buildings and other facilities which are reported as Poor or Very Poor by the consulting structural engineer, the responsible official shall immediately consider alternatives to undiminished continued use and occupancy of the buildings and other facilities, including total or partial evacuation, temporary emergency measures, reductions in use, reconstruction, or combinations of these alternatives, and shall then take appropriate action.

The consulting structural engineer shall be required to include in all reports recommendations regarding priorities for abatement of seismic hazards and estimates of costs for correcting seismic deficiencies in accordance with this policy.

- **Standards for Seismic Rehabilitation Projects**. When evaluation by the consulting structural engineer of existing buildings or other facilities discloses conditions which do not afford an acceptable level of safety, proposed correctional work shall be incorporated in the program developed by the responsible official for abatement of seismic hazards and integrated in the University's proposed Capital Improvement Program. Seismic rehabilitation projects shall provide, as a minimum, an acceptable level of earthquake safety based on the sole consideration of the protection of life and prevention of personal injury, insofar as predictable, at a level of safety equivalent to that which would be established by compliance with the current seismic provisions of CCR, Title 24, California Building Standards Code, or local seismic requirements, whichever requirements are more stringent, disregarding, insofar as possible, potential building damage not jeopardizing life, which would be expected from one earthquake of the intensity of at least IX on the Modified Mercalli Intensity Scale (modified by Charles F. Richter in

1958, as shown in Appendix B), except that an intensity of VIII can be utilized for buildings on the Davis and San Diego Merced campuses. The intent of seismic rehabilitation shall be to reconstruct buildings and other structures so that they would have a Good seismic performance rating, as defined in Appendix A. based on the present state of the practice of earthquake engineering.

When funds for seismic rehabilitation are limited, the program developed by the responsible official may include a phased rehabilitation program for selected buildings. The first phase would have the goal of reducing the greatest life safety hazards of the structure such as reducing the potential of partial building collapse and/or reducing falling hazards at building entrances and along adjacent walkways. Later phases, to be performed when funds are available, would complete the seismic rehabilitation program of the structure. The consulting structural engineer shall assist the responsible official in establishing the scope of work in each phase of a phased rehabilitation program.

Preliminary plans for all seismic rehabilitation projects shall be reviewed by the consulting structural engineer, who shall verify the scope of the rehabilitation work and shall prepare any recommendations regarding any special criteria which should be considered in the project design. Upon completion of plans and specifications, the consulting structural engineer shall review the plans and structural calculations for completeness, general accuracy, appropriateness of details, and for compliance with any special criteria. The design structural engineer shall incorporate comments into the plans prior to bidding.

- **Repair of Buildings and Other Facilities Damaged by Earthquakes**. In addition to the requirements established elsewhere in the Policy pertaining to the construction, maintenance and rehabilitation of University buildings and facilities, the following standards shall apply to repair of University buildings and facilities which are damaged by earthquakes.

   1. Subject to the provisions of paragraph 2, below, when the lateral load resisting capacity for the building or facility as a whole is reduced by less than 10 percent, repairs shall be in conformity with the requirements of codes currently applicable to University construction. Related work required by currently applicable codes shall also be performed in areas affected by the repairs.

   2. When (i) the lateral load resisting capacity for the building or facility as a whole is reduced by 10 percent or more, or (ii) in the case of hospitals, skilled nursing facilities, intermediate-care facilities and essential service buildings as defined in Table 23-K of the 1991 California Code of Regulations, Title 24, California Building Standards Code, Part 2, California Building Code, the lateral load resisting capacity of the entire building or facility is reduced by 5 percent or more, or (iii) when the lateral load resisting capacity is reduced by less than 10 percent, but the estimated cost of repairs required to bring damaged elements into substantial compliance with the seismic performance objectives of current codes exceeds 10 percent of the replacement cost of the entire building or

facility, the entire building or facility shall be made to substantially comply with the seismic performance objectives of the codes currently applicable to University construction. Related work required by currently applicable codes shall also be performed in areas affected by the repairs. For purposes of this Policy, "replacement cost" is defined as construction cost of a like number of assignable square feet designed to house a like program on the same site and built in compliance with codes currently applicable to University construction.

3. When calculating the percentage reduction in total lateral load resisting capacity of any building or facility the construction of which was first completed prior to January 1, 1941, damage to all building or facility elements which served as lateral resisting elements shall be included, even if such elements were not originally designed or intended as lateral resisting elements, unless the building or facility possesses sufficient seismic resistance to substantially comply with the performance objectives of the codes currently applicable to University construction without these elements.

▪ **New Buildings and Other Facilities; Hospitals**. The design and construction of new buildings and other facilities on University premises shall, as a minimum, comply with the current seismic provisions of CCR, Title 24, California Building Standards Code, or local seismic requirements, whichever requirements are more stringent. In addition, provisions shall be made for adequate anchorage for seismic resistance of nonstructural building elements-including, but not limited to, glass, fixtures, furnishings, and other contents, equipment, material storage facilities, and utilities (gas, high-temperature water, steam, fire protection water, etc.) - with respect to potential hazards to persons in the event of seismic disturbances.

New University buildings shall not be constructed on the trace of an active geological fault.

Preliminary plans for new major capital improvement projects, except pre-engineered buildings, wood-framed buildings of less than 3,000 square feet, and buildings not intended for human occupancy other than hospitals proposed for construction shall be examined by the consulting structural engineer, who shall prepare recommendations regarding any special criteria that, in that engineer's opinion, should be recognized in providing adequate resistance to seismic forces to minimize the risk of injury to persons and damage to property. Upon completion of the final plans, the consulting structural engineer shall review the plans and structural calculations for completeness, general accuracy, structural details, and for compliance with any special criteria previously established. Should seismic design standards be revised during the period between completion of final plans and the date of advertisement for bids, the consulting structural engineer shall review again the plans and structural calculations before advertising for bids. The design structural engineer shall incorporate all comments into the plans prior to bidding.

Prior to the release of funds for structures other than hospital or for seismic rehabilitation projects, a letter or report from the campus consulting structural engineer shall be submitted, stating that the construction plans are in general conformance with the University policy on seismic safety.

The design and construction of new facilities or alterations for hospitals, skilled nursing facilities, and intermediate-care facilities as defined in Section 15001 of the California Health and Safety Code, on University premises or under University operation shall comply with CCR, Title 24, California Building Standards Code.

B.2.2 BACKGROUND

This policy was set forth in Vice President McCorkle's letter to the Chancellors et al., of January 20, l975. It was reported and accepted by The Regents' Committee on Grounds and Buildings on January 16, 1975. The policy was revised by President Gardner in his letter to the Chancellors et al., of May 17, 1988 and it was revised by President Peltason in his letter to the Chancellors et al., of January 17, 1995.

B.2.3 GUIDELINES

The Senior Vice President Business and Finance is responsible for coordination of seismic safety programs and may issue appropriate administrative guidelines as necessary.

B.2.4 APPENDIX A

MEANING OF GOOD, FAIR, POOR, OR VERY POOR SEISMIC PERFORMANCE RATINGS

"Good" seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance "is anticipated to result in some structural and/or nonstructural damage and/or falling hazards" that would not significantly jeopardize life. Buildings and other structures with a "Good " rating would have a level of seismic resistance such that funds need not be spent to improve their seismic resistance to gain greater life safety, and would represent an acceptable level of earthquake safety.

"Fair" seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in structural and nonstructural damage and/or falling hazards that would represent low life hazards. Buildings and other structures with a "Fair" seismic performance rating would be given a low priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified "Good."

"Poor" seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in significant structural and nonstructural damage and/or falling hazards that would represent appreciable life hazards. Such buildings or structures either would be given a high priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified as "Good," or would be considered for other abatement programs, such as reduction of occupancy.

"Very Poor" seismic performance rating would apply to buildings and other structures whose performance during a major seismic disturbance is anticipated to result in extensive structural and nonstructural damage, potential structural collapse, and/or falling hazards that would represent high life hazards. Such buildings or structures either would be given the highest priority for expenditures to improve their seismic resistance and/or to reduce falling hazards so that the building could be reclassified "Good," or would be considered for other abatement programs such as reduction of occupancy.

"Major seismic disturbance" is defined for the purposes of these seismic performance ratings as an earthquake at the site which would be given a Modified Mercalli Intensity Scale (modified by Charles F. Richter in 1958) rating of at least IX based on the description of the structural effects, except that an intensity of VIII can be utilized for buildings of the Davis and San Diego Merced campuses. It is assumed that the intensity of the ground shaking is not appreciably greater in areas rated MM X, MM XI, and MM XII than in areas rated MM IX. The damage descriptions in MM X, MM XI, and MM XII relate more to the geologic features and non-building structures.

"Falling Hazards" are defined for the purposes of these seismic performance ratings as potential falling or sliding hazards such as interior and exterior building elements including parapets, ornamentation, chimneys, walls, and partitions, but excluding equipment, fixtures, ceilings, furniture, furnishings, and other contents. The falling hazards in the excluded list above should not be used in the determination of the seismic performance rating of a building or structure but should be abated.

B.2.5   APPENDIX B

MODIFIED MERCALLI INTENSITY SCALE

I   Not felt. Marginal and long-period effects of large earthquakes.

II   Felt by persons at rest, on upper floors, or favorably placed.

III   Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.

IV   Hanging objects swing. Vibration like passing of heavy trucks, or sensation of a jolt like a heavy ball striking the walls. Standing motor cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of [intensity] IV, wooden walls and frames creak.

V   Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small, unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate.

VI   Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc. off shelves. Pictures off walls, Furniture moved or overturned. Weak plaster and masonry D cracked. Small bells ring (church, school). Trees, bushes shaken (visibly, or heard to rustle).

VII   Difficult to stand. Noticed by drivers of motor cars. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices (also unbraced parapets and architectural ornaments). Some cracks in masonry C. Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.

VIII   Steering of motor cars affected. Damage to masonry C; partial collapse. Some to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.

IX   General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. (General damage to foundations.) Frame structures, if not bolted, shifted off foundations. Frames racked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluviated areas, sand and mud ejected, earthquake fountains, sand craters.

X   Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.

XI   Rails bent greatly. Underground pipelines completely out of service.

XII   Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.

The version of the scale given above was published by Richter (1), and is a slight abridgment of the original scale. Richter also included the description of the types of construction included here. The original scale was published in 1931 by H.O. Wood and Frank Neumann (2).

B.2.6 DEFINITION OF MASONRY A, B, C, D

Masonry A. Good workmanship, mortar, and design; reinforced, especially laterally, and bound together by using steel, concrete, etc.; designed to resist lateral forces.

Masonry B. Good workmanship and mortar; reinforced, but not designed in detail to resist lateral forces.

Masonry C. Ordinary workmanship and mortar; no extreme weaknesses like failing to tie in at the corners, but neither reinforced nor designed against horizontal forces.

Masonry D. Weak materials, such as adobe; poor mortar; low standards of workmanship; weak horizontally.

B.2.7 BIBLIOGRAPHY

Richter, C.F., "Elementary Seismology" W.H. Freeman and Co. Inc., 1958, pp. 136-138.

Wood, H.O., and Neumann, "Modified Mercalli Intensity Scale of 1931," Bull. Seism. Soc. Am., 1931, 21:277-283.

Source: The University Policy on Seismic Safety can be downloaded at http://www.ucop.edu/facil/fmc/facilman/volume1/rpsafety.html.

A I R   Q U A L I T Y

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APPENDIX C
AIR QUALITY

This appendix includes supplemental information regarding the regulatory framework for air quality in the Bay Area (Subappendix C.1), technical information and supporting calculations for the "criteria" air pollutant analyses presented in Section 4.2 (Subappendix C.2), and technical information and supporting calculations for the health risk assessment for the current campus and future LRDP scenarios presented in Section 4.2 (Subappendix C.3).

C.1   CURRENT STATUS OF BAY AREA AIR QUALITY

This subappendix describes the current regulatory status of "criteria" air pollutants in the Bay Area. Historically, air quality laws and regulations have divided air pollutants into two broad categories: "criteria pollutants" and "toxic air contaminants." Federal and State air quality standards have been established for six ambient air pollutants, which are "criteria pollutants," so named because the U.S. Environmental Protection Agency (EPA) periodically publishes criteria documents to help establish these standards. These criteria pollutants have been regulated for more than three decades.

The criteria air pollutants for which federal and State ambient standards have been established include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in aerodynamic diameter (PM_{10}), and lead. In the analyses presented in Section 4.2, O_3 is evaluated by assessing emissions of O_3 precursors: reactive organic gases (ROG) and NO_2. Other pollutants, such as lead, also have federal and State ambient air quality standards, but they are not discussed in this document because emissions of these pollutants related to implementation of the 2020 LRDP Update are expected to be minimal. In the case of lead, this is primarily due to the phase out of lead in gasoline. Recently, particulate matter less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$) has been added to the list of criteria pollutants, which is further discussed later in this subappendix. National and State ambient air quality standards are listed in Table 4.2-2 of Section 4.2.

"Toxic air contaminants" (TACs) are airborne pollutants that have no air quality standards but are known to have adverse human health effects. They have been regulated under federal and State statutes for more than two decades, primarily by control technology requirements on stationary sources, mobile source control requirements, and mitigation established by human health risk assessment. The supporting information for the health risk assessment analyses presented in Section 4.2 for TACs associated with the 2020 LRDP Update can be found in Subappendix C.3.

In terms of criteria pollutants, the EPA has classified the Bay Area as a moderate nonattainment area for ozone, and a "maintenance" attainment area for carbon monoxide until at least 2008 (40 CFR 81.305). The California Air Resources Board (CARB) has given the area State-level nonattainment status for O_3 and PM_{10}.

The federally-required State Implementation Plan (SIP) for attainment of the federal ozone standard in the Bay Area was last revised in 1999 to respond to exceedances of the federal ozone standard during the mid to late 1990s. A 2001 ozone attainment plan was adopted by the Bay Area Air Quality Management District (BAAQMD) on October 26, 2001, and approved by the CARB on November 1, 2001. Along with the BAAQMD, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) also contribute to the ozone attainment plan. On November 30, 2001, the CARB submitted the 2001 ozone attainment plan to the EPA for approval as a revision to the California SIP. The 2001 ozone attainment plan includes a provision to provide a revised ozone attainment strategy to the EPA in 2004.

The Clean Air Plan (CAP) is a State-level requirement of the California Clean Air Act that specifies additional measures of emission control to achieve the more stringent State ambient air quality standards for ozone. The SIP required by the federal Clean Air Act is partially based on control measures from the CAP. The BAAQMD's 2000 CAP, which was adopted December 20, 2000, is the most recent version of the CAP for ozone.[1] The 2003 CAP is currently under development. The State PM_{10} standards are also exceeded in the region. However, no State plan is required to meet State PM_{10} standards.

The CAP is updated and reevaluated every three years. Updating the CAP allows the most up-to-date population, travel activity, and energy use fore-casts from the MTC and ABAG to be incorporated. The 2000 CAP is based on ABAG *Projections '98*.

Important components of the CAP for attaining the ozone standards are transportation control measures (TCMs) that may be implemented by local jurisdictions. The cities and counties of the Bay Area are responsible for implementing many of the TCMs identified in the CAP. Some TCMs relevant to the campus planning process are as follows:

- TCM 1: Support Voluntary Employer-Based Trip Reduction Programs
- TCM 9: Improve Bicycle Access and Facilities
- TCM 15: Local Clean Air Plans, Policies, and Programs
- TCM 17: Conduct Demonstration Projects
- TCM 19: Promote Pedestrian Travel
- TCM 20: Promote Traffic Calming Measures

In July 1997, the EPA adopted a number of changes to national ambient air quality standards for O_3 and particulate matter.[2] The new O_3 and $PM_{2.5}$ standards are shown in Table 4.2-2 in Section 4.2. These new standards are discussed separately because, from a regulatory standpoint, they have a different status than previously adopted standards. None of the new standards are fully effective at this time because the data and information needed to develop control programs will require several years to collect. The EPA has not yet designated any areas of the country as attainment or nonattainment for the new O_3 and $PM_{2.5}$ standards. Planning requirements and control programs will be phased in with a full set of supporting regulations scheduled for completion by 2008.

For O_3, the EPA adopted a new 8-hour standard that will eventually replace the existing 1-hour standard.[3] The new O_3 standard was adopted after the EPA found that the previous national 1-hour standard of 0.12 parts per million (ppm) did not adequately protect the public from adverse health effects. Of particular concern is evidence that exposure to O_3 levels below 0.12 ppm is associated with increased hospital admissions for people with respiratory ailments, including asthma, and with reductions in lung function in children and adults who are active outdoors.[4] Evidence also exists that long-term exposure can cause repeated inflammation of the lungs, impairment of lung defense mechanisms, and irreversible damage in lung structure, leading to premature aging of the lungs and chronic respiratory illnesses.[5]

For particulate matter, the EPA adopted a 24-hour standard and an annual average standard for the fine fraction of particulate matter, $PM_{2.5}$.[6] The EPA retained the existing PM_{10} standards, but slightly changed the form of the PM_{10} 24-hour standard.[7] The EPA's review of its particulate matter standard showed that "coarse" respirable particles, which are between 2.5 to 10 micrometers in size, can be inhaled and aggravate health problems such as asthma. Therefore, the EPA chose to retain PM_{10} standards. The EPA also reviewed studies providing epidemiological evidence that exposure to particulate matter at levels below the existing PM_{10} standards were associated with increased hospital admissions and premature mortality.[8] The EPA found that finer particles, which are less than 2.5 micrometers in diameter, can penetrate more deeply into lungs and are more likely than coarser particles to contribute to more severe health effects.[9] Therefore, the EPA established new standards for $PM_{2.5}$.

Soon after the promulgation of the new air quality standards, the EPA's authority to establish these new standards was challenged legally. On May 14, 1999, the federal D.C. Circuit Court of Appeals remanded both the new O_3 and $PM_{2.5}$ standards back to the EPA for failing to articulate adequately its authority to set the standards (*American Trucking Associations v. U.S. EPA*, 175 F.3d 1027, D.C. Cir. 1999). On January 27, 2000, the EPA petitioned the U.S. Supreme Court (*Browner v. American Trucking Associations*, No. 99-1257, Sup. Ct. 2000). On February 27, 2001, the U.S. Supreme Court held that the EPA had authority to issue the new standards (*Whitman v. American Trucking Associations*, No. 99-1257 and No. 99-1426, Sup. Ct. 2001) and remanded the case back to the D.C. Circuit and the EPA for proceedings consistent with their opinion. On March 26, 2002, the D.C. Circuit, on remand from the Supreme Court, rejected all remaining challenges (*American Trucking Associations, Inc., et al. v. USEPA*, No. 97-1441, D.C. Circuit 2001). The CARB is now in the process of monitoring these pollutants to evaluate the attainment status of the State's air basins with respect to the federal standards. The EPA, on remand from the Supreme Court, is developing a new eight-hour ozone standard implementation policy that is projected to be finalized in the near future.

C.2 TECHNICAL INFORMATION AND CALCULATIONS: CRITERIA AIR POLLUTANT ANALYSES

The pages that follow in this subappendix contain the URBEMIS modeling files for current campus and future LRDP area sources.

In addition, a spreadsheet is included that shows the calculation of criteria pollutant emissions from current campus and future LRDP emergency generator engines.

LRDP Academic and Support Bldgs.txt

URBEMIS 2002 For Windows   7.4.2

File Name: C:\CAV\UCBerkeley LRDP\Academic and Support.urb
Project Name: UC Berkeley Academic and Support Buildings
Project Location: San Francisco Bay Area
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	1.63	21.27	9.09	0.00	0.04

URBEMIS 2002 For Windows   7.4.2

File Name: C:\CAV\UCBerkeley LRDP\Academic and Support.urb
Project Name: UC Berkeley Academic and Support Buildings
Project Location: San Francisco Bay Area
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	1.54	21.27	8.51	–	0.04
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.08	0.01	0.58	0.00	0.00
Consumer Prdcts	0.00	–	–	–	–
TOTALS(lbs/day,unmitigated)	1.63	21.27	9.09	0.00	0.04

URBEMIS 2002 For Windows   7.4.2

File Name: C:\CAV\UCBerkeley LRDP\Housing.urb
Project Name: UC Berkeley Housing Area Source Emissions
Project Location: San Francisco Bay Area
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

                    SUMMARY REPORT
                (Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES
                              ROG   NOx   CO   SO2   PM10
    TOTALS (lbs/day,unmitigated) 69.39   10.56   5.08   0.00   0.02

URBEMIS 2002 For Windows   7.4.2

File Name: C:\CAV\UCBerkeley LRDP\Housing.urb
Project Name: UC Berkeley Housing Area Source Emissions
Project Location: San Francisco Bay Area
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

                    DETAIL REPORT
                (Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.82	10.56	4.49	–	0.02
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.08	0.01	0.58	0.00	0.00
Consumer Prdcts	68.49	–	–	–	–
TOTALS(lbs/day,unmitigated)	69.39	10.56	5.08	0.00	0.02

URBEMIS 2002 For Windows   7.4.2

File Name:
X:\x_env_aql\PROJECTS\UCBerkly\Lrdp-DCE\Impacts\Construction_1yr.urb
Project Name: UC Berkeley Construction Emissions
Project Location: San Francisco Bay Area
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

		ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2005 ***								
TOTALS (lbs/day,unmitigated)		138.58	1,103.55	991.94	0.01	165.72	50.67	115.05
TOTALS (lbs/day, mitigated)		15.84	570.05	124.06	0.01	10.85	0.58	10.27
*** 2006 ***								
TOTALS (lbs/day,unmitigated)		1,672.60	1,069.71	1,042.56	0.21	48.84	48.13	0.71
TOTALS (lbs/day, mitigated)		1,549.11	552.78	143.01	0.21	1.28	0.57	0.71

URBEMIS 2002 For Windows   7.4.2

File Name:
X:\x_env_aql\PROJECTS\UCBerkly\Lrdp-DCE\Impacts\Construction_1yr.urb
Project Name: UC Berkeley Construction Emissions
Project Location: San Francisco Bay Area
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2005
Construction Duration: 12
Total Land Use Area to be Developed: 45.9 acres
Maximum Acreage Disturbed Per Day: 11.5 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 1000000

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10	PM10

```
                                                          EXHAUST         DUST
*** 2005***
Phase 1 - Demolition Emissions
Fugitive Dust                       -           -           -           -       0.00
-        0.00
Off-Road Diesel                   0.00        0.00        0.00          -       0.00
0.00      0.00
On-Road Diesel                    0.00        0.00        0.00        0.00      0.00
0.00      0.00
Worker Trips                      0.00        0.00        0.00        0.00      0.00
0.00      0.00
    Maximum lbs/day               0.00        0.00        0.00        0.00      0.00
0.00      0.00


Phase 2 - Site Grading Emissions
Fugitive Dust                       -           -           -           -      10.22
-       10.22
Off-Road Diesel                   8.61      372.02       59.00          -       0.37
0.37      0.00
On-Road Diesel                    0.00        0.00        0.00        0.00      0.00
0.00      0.00
Worker Trips                      1.04        1.28       22.93        0.01      0.09
0.04      0.05
    Maximum lbs/day               9.65      373.30       81.93        0.01     10.68
0.41     10.27

Phase 3 - Building Construction
Bldg Const Off-Road Diesel       13.64      568.75       96.39          -       0.56
0.56      0.00
Bldg Const Worker Trips           2.20        1.30       27.67        0.00      0.37
0.02      0.35
Arch Coatings Off-Gas             0.00          -           -           -         -
-          -
Arch Coatings Worker Trips        0.00        0.00        0.00        0.00      0.00
0.00      0.00
Asphalt Off-Gas                   0.00          -           -           -         -
-          -
Asphalt Off-Road Diesel           0.00        0.00        0.00          -       0.00
0.00      0.00
Asphalt On-Road Diesel            0.00        0.00        0.00        0.00      0.00
0.00      0.00
Asphalt Worker Trips              0.00        0.00        0.00        0.00      0.00
0.00      0.00
    Maximum lbs/day              15.84      570.05      124.06        0.00      0.93
0.58      0.35

    Max lbs/day all phases       15.84      570.05      124.06        0.01     10.85
0.58     10.27


*** 2006***
Phase 1 - Demolition Emissions
Fugitive Dust                       -           -           -           -       0.00
-        0.00
Off-Road Diesel                   0.00        0.00        0.00          -       0.00
0.00      0.00
On-Road Diesel                    0.00        0.00        0.00        0.00      0.00
0.00      0.00
Worker Trips                      0.00        0.00        0.00        0.00      0.00
0.00      0.00
    Maximum lbs/day               0.00        0.00        0.00        0.00      0.00
0.00      0.00
```

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00
- 0.00					
Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00
0.00 0.00					

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	13.64	544.96	99.58	-	0.53
0.53 0.00					
Bldg Const Worker Trips	2.07	1.24	26.26	0.00	0.37
0.02 0.35					
Arch Coatings Off-Gas	1,528.93	-	-	-	-
- -					
Arch Coatings Worker Trips	1.86	0.86	21.57	0.00	0.37
0.02 0.35					
Asphalt Off-Gas	2.74	-	-	-	-
- -					
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
Asphalt On-Road Diesel	0.08	6.12	0.30	0.21	0.01
0.00 0.01					
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Maximum lbs/day	1,549.11	552.78	143.01	0.21	1.28
0.57 0.71					
Max lbs/day all phases	1,549.11	552.78	143.01	0.21	1.28
0.57 0.71					

Page: 3

Construction-Related Mitigation Measures

 Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
 Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
 Phase 2: Soil Disturbance: Water exposed surfaces - 3x daily
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 50.0%)
 Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
  Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
 Phase 2: Off-Road Diesel Exhaust: Use diesel particulate filter
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
 Phase 2: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
  Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
 Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
  Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
 Phase 2: On-Road Diesel Exhaust: Use diesel particulate filter
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
 Phase 2: On-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
  Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)

Phase 2: Stockpiles: Cover all stock piles with tarps
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 3x daily
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 45.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 2: Worker Trips: Use shuttle to retail establishments @lunch
  Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
  Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
  Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
  Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use diesel particulate filter
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
  Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
  Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use diesel particulate filter
  Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 80.0%)
Phase 3: On-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
  Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
  Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
  Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 3: Worker Trips: Use shuttle to retail establishments @lunch
  Percent Reduction(ROG 1.0% NOx 1.3% CO 1.3% SO2 1.3% PM10 1.3%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '05
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
20	Rubber Tired Dozers	352	0.590	8.0
20	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jul '05
Phase 3 Duration: 10.7 months
  Start Month/Year for SubPhase Building: Jul '05
  SubPhase Building Duration: 10.7 months
  Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
23	Concrete/Industrial saws	84	0.730	8.0
45	Other Equipment	190	0.620	8.0
23	Rough Terrain Forklifts	94	0.475	8.0

  Start Month/Year for SubPhase Architectural Coatings: Apr '06
  SubPhase Architectural Coatings Duration: 1.1 months
  Start Month/Year for SubPhase Asphalt: May '06
  SubPhase Asphalt Duration: 0.5 months
  Acres to be Paved: 11.5

Page: 4

Off-Road Equipment
No.   Type   Horsepower   Load Factor   Hours/Day

UC Berkeley Emergency Generator Emission Rates and Stack Parameters

Source Number (name-loc.)	Engine Make	Engine Model	Rated bhp	Engine Year	Engine Instal. Date	Fuel	Stack Ht. abv. grade (m)*	Stack diam. (m)	Exh. temp. (K)	Part. emissions factors g/hp/hr D-2 Test Cycle	Exit Velocity (m/s)	Load Factor	Annual Testing Hours	Annualized Emission Rate (g/s)	Cancer Risk Rate (for modeling file)	Chronic Exposure (for modeling file)
62 (Central Dining)	Caterpillar	3456	764	2000	Aug-02	diesel	4.6	0.13	800	0.1	146.0	25%	26	1.575E-05	4.724E-03	3.149E-06
63 (Barker)	Caterpillar	3456	764	2001	Jul-02	diesel	4.6	0.13	800	0.05	152.0	25%	26	7.874E-06	2.362E-03	1.575E-06
64 (Birge stationary)	Caterpillar	1004-40TW	117	2001	Oct-02	diesel	3.0	0.08	817	0.1	58.5	25%	26	2.412E-06	7.235E-04	4.823E-07
105 (Haas Pav)	Cummins	QST30-G2	1200	1998	Jun-99	diesel	4.6	0.23	811	1	70.1	25%	26	2.473E-04	7.420E-02	4.947E-05
106 (VLSB)	Detroit Diesel	5147541	1006	1992	May-92	diesel	30.5	0.20	811	1	70.1	25%	26	2.074E-04	6.221E-02	4.147E-05
107 (Koshland)	Cummins	VTA28G2/37116828	805	1987	Jan-88	diesel	0.0	0.18	811	1	70.1	25%	26	1.659E-04	4.978E-02	3.318E-05
108 (LSBA)	Cummins	YTA28G2	805	1986	Aug-86	diesel	7.6	0.18	811	1	70.1	25%	26	1.659E-04	4.978E-02	3.318E-05
109 (Tan)	Detroit Diesel	500R0ZD71	671	1996	Jun-96	diesel	3.0	0.15	811	0.4	70.1	25%	26	5.532E-05	1.660E-02	1.106E-05
110 (NWAF- S)	Allis Chalmers	3119-0955	335	1999	Oct-99	diesel	4.6	0.10	811	0.4	70.1	25%	26	2.762E-05	8.286E-03	5.524E-06
111 (Doe-Moffitt Stacks)	Detroit Diesel	CID 300	385	1995	Jun-95	diesel	3.0	0.11	811	1	70.1	25%	26	7.935E-05	2.381E-02	1.587E-05
112 (Res 1-1W)	Caterpillar V-8	3208	335	1993	Nov-93	diesel	3.0	0.10	811	1	70.1	25%	26	6.905E-05	2.071E-02	1.381E-05
113 (Res 1-2E)	Caterpillar V-8	3208	335	1993	Nov-93	diesel	3.0	0.10	811	1	70.1	25%	26	6.905E-05	2.071E-02	1.381E-05
114 (Res 2-1W)	Caterpillar V-8	3208	335	1995	Jun-95	diesel	3.0	0.10	811	1	70.1	25%	26	6.905E-05	2.071E-02	1.381E-05
115 (Res 2-2E)	Caterpillar V-8	3208	335	1995	Jun-95	diesel	3.0	0.10	811	1	70.1	25%	26	6.905E-05	2.071E-02	1.381E-05
116 (Tang)[1]	Detroit Diesel	80637405	335	1995	May-95	diesel	4.6	0.10	811	1	70.1	25%	26	6.905E-05	2.071E-02	1.381E-05
117 (Minor)	Detroit Diesel	80637405	335	1992	Aug-92	diesel	3.0	0.10	811	1	70.1	25%	26	6.905E-05	2.071E-02	1.381E-05
118 (NWAF-N)	Volvo Penta	TAD1030GE	400	1999	Oct-99	diesel	4.6	0.13	811	0.4	70.1	25%	26	3.298E-05	9.893E-03	6.596E-06
119 (Warren)	Allis Chambers	DES 200	235	1971	Jun-71	diesel	4.6	0.08	811	1	70.1	25%	26	4.844E-05	1.453E-02	9.687E-06
120 (Sproul)	John Deere	C5PG 6005-A	169	1981	Jun-81	diesel	3.0	0.08	811	1	70.1	25%	26	3.483E-05	1.045E-02	6.967E-06
121 (I- House)	Allis-Chalmers	12ST6	168	1977	Jun-77	diesel	3.0	0.08	811	1	70.1	25%	26	3.463E-05	1.039E-02	6.925E-06
122 (Silver Sp Science Add)[2]	John Deere	6059TF003	168	1998	Dec-98	diesel	3.0	0.08	811	0.4	70.1	25%	26	1.385E-05	4.155E-03	2.770E-06
123 (Stanley)	Cummins	GCT8.3-G 207HP	207	1991	Jul-91	diesel	3.0	0.08	811	1	70.1	25%	26	4.267E-05	1.280E-02	8.533E-06
124 (ABRS)[2]	Cummins	N-55-G	168	1977	Mar-78	diesel	3.0	0.08	811	1	70.1	25%	26	3.463E-05	1.039E-02	6.925E-06
125 (EHS/HMF)	Caterpillar	27D6	166	1999	Jun-99	diesel	3.0	0.08	811	0.4	70.1	25%	26	1.369E-05	4.106E-03	2.737E-06
126 (GBCR)	Cummins	6BT5.9-GC	134	1998	Dec-98	diesel	0.0	0.08	811	0.4	70.1	25%	26	1.105E-05	3.314E-03	2.210E-06
128 (Donner)	John Deere	4030TF001	67	1994	Aug-94	diesel	3.0	0.05	811	1	70.1	25%	26	1.381E-05	4.143E-03	2.762E-06
129 (Birge port)	Cummins	KW50	67	1984	Jan-85	diesel	2.4	0.05	811	1	70.1	25%	26	1.381E-05	4.143E-03	2.762E-06
130 (Hildebrand)	Cummins	6CTA8.3-G2	277	2001	Oct-02	diesel	2.4	0.08	815	0.15	134.5	25%	26	8.564E-06	2.569E-03	1.713E-06
131 (Haas Rec. Sports CEV)	Caterpillar	1004-40TW	117	2001	Feb-03	diesel	1.8	0.08	817	0.1	58.5	25%	26	2.412E-06	7.235E-04	4.823E-07
132 (Mulford CEV)	Caterpillar	1004-40TW	117	2001	May-03	diesel	1.8	0.08	817	0.1	58.5	25%	26	2.412E-06	7.235E-04	4.823E-07
133 (HMMB)	Cummins	QSX15-G9	755	2001	Jul-02	diesel	3.0	0.13	769	0.4	135.1	25%	26	6.225E-05	1.867E-02	1.245E-05
New LRDP Engines																
Stanley Hall (NEQSS)	N/A	N/A	750	Future	Future	diesel	2.1336	0.1778	769.26	0.15	76.14	25%	26	2.319E-05	6.956E-03	4.638E-06
Davis Hall North (NEQSS)	N/A	N/A	750	Future	Future	diesel	2.1336	0.1778	769.26	0.15	76.14	25%	26	2.319E-05	6.956E-03	4.638E-06
McCone	N/A	N/A	300	Future	Future	diesel	2.1336	0.127	810.93	0.15	59.08	25%	26	9.275E-06	2.783E-03	1.855E-06
SRB1	N/A	N/A	300	Future	Future	diesel	2.1336	0.127	810.93	0.15	59.08	25%	26	9.275E-06	2.783E-03	1.855E-06
New Lab	N/A	N/A	750	Future	Future	diesel	2.1336	0.1778	769.26	0.15	76.14	25%	26	2.319E-05	6.956E-03	4.638E-06
Music Library	N/A	N/A	300	Future	Future	diesel	2.1336	0.127	810.93	0.15	59.08	25%	26	9.275E-06	2.783E-03	1.855E-06
Unit 1 Infill Housing	N/A	N/A	300	Future	Future	diesel	2.1336	0.127	810.93	0.15	59.08	25%	26	9.275E-06	2.783E-03	1.855E-06
Unit 2 Infill Housing	N/A	N/A	300	Future	Future	diesel	2.1336	0.127	810.93	0.15	59.08	25%	26	9.275E-06	2.783E-03	1.855E-06
Unit 3	N/A	N/A	300	Future	Future	diesel	2.1336	0.127	810.93	0.15	59.08	25%	26	9.275E-06	2.783E-03	1.855E-06
116 Tang Center[1]	N/A	N/A	635	Future	Future	diesel	2.1336	0.1524	810.93	0.15	87.63	25%	26	1.963E-05	5.890E-03	3.926E-06

[1] The HP value represents 300 HP of additional power for the LRDP. The existing Tang Center generator operates at 335 HP.

[2] Not included in the modeling analysis.

C.3   TECHNICAL INFORMATION AND CALCULATIONS: TOXIC AIR CONTAMINANT HEALTH RISK ASSESSMENT

A baseline health risk assessment (HRA) for current campus operations was prepared on June 28, 2000.[10] A protocol for this HRA was transmitted to the Bay Area Air Quality Management District (BAAQMD) on August 24, 1999, which was included as Appendix A in the June 28, 2000 HRA, along with the BAAQMD's September 7, 1999 approval. Since the June 28, 2000 HRA was conducted, there have been some changes in modeled sources, emission factors, and toxicity factors. Therefore, the June 28, 2000 HRA has been updated, as summarized below, in the current campus HRA. A discussion of a future LRDP HRA then follows, which presents projected health risks associated with the 2020 LRDP (current baseline plus LRDP development).

CURRENT CAMPUS (BASELINE) HEALTH RISK ASSESSMENT

BACKGROUND AIR TOXICS CONCENTRATIONS

The BAAQMD has updated background air toxics concentration estimates since publication of the June 28, 2000 HRA. As of March 2004, the most currently available data are from the 2001 reporting year. The BAAQMD reports a calculated lifetime cancer risk from measured concentrations of TACs in 2001 to be about 173 in one million averaged over all Bay Area locations.[11] Using the same calculation methods with the ambient TAC data reported from the Davie Stadium monitoring station[12] (about 4 miles south of UC Berkeley), an average annual cancer risk of 163 in one million is estimated at that location. This calculation is presented at the end of this subappendix. Because diesel particulate matter (DPM) can not be directly monitored in the ambient air, the BAAQMD uses CARB estimates of the population-weighted average ambient DPM concentration for the Bay Area to estimate an average cancer risk from DPM exposure at about 440 in one million (which adds to the estimated risks from the other TACs). These calculated average cancer risk values from ambient air exposure in the Bay Area can be compared against the lifetime probability of being diagnosed with cancer in the United States from all causes, which is about 40 percent, or 400,000 in one million.[13] Thus the risk of being diagnosed with cancer from ambient TACs in the Bay Area is quite small when compared against the overall background cancer risk.

BASELINE HRA EMISSION SOURCES

More details on the emissions calculations are presented in Section 3.0 of the June 28, 2000 *Central Campus Human Health Risk Assessment*. A descriptive summary follows.

The emission sources included in the original June 28, 2000 HRA were:

- Campus-wide laboratories
- Cogeneration plant (combustion turbines and duct burners)
- Three central plant boilers
- Lithographic and envelope printing operations
- Campus-wide painting and solvent cleaning operations
- Hazardous Materials Facility

Upon further assessment, the following emission sources were <u>excluded</u> as having an insignificant impact:

- Natural-gas-fired boilers less than 10 MMBtu/hr[14]
- Mechanical Engineering Engine Laboratory (infrequent testing of engines)
- Sandblasting operation

The recent revision to the baseline HRA added existing emergency generators. The emission estimation methodologies for each of the emission sources listed above and the emergency generators are summarized next.

CAMPUS LABORATORIES. Laboratory chemicals were selected for inclusion in the HRA based on a "snapshot" of the UC Berkeley (UCB) chemical inventory on May 10, 1999, and comparison against the BAAQMD TAC list, as well as an examination of past laboratory fume hood studies. A further analysis of candidate chemicals was then conducted against annual chemical usage records for 1998 from the following campus databases:

- Chemical Inventory Safety and Information System (CISIS)
- College of Chemistry Purchase Order Tracking System (POTS)

These databases track chemical purchases per building on the UCB campus. Upon consideration of the annual purchase amounts and emissions potential versus intrinsic toxicity, 31 chemicals were ultimately selected for the June 28, 2000 HRA. The baseline HRA modeled laboratory emissions on a per building basis,[15] which were estimated by applying evaporative loss factors to the annual chemical usages per building. The evaporative loss factors were derived from previous work performed at Stanford University,[16] which is described further in the June 28, 2000 HRA. Since the wet laboratory square footage per building was also available, emission factors in terms of grams per second per wet laboratory square foot (g/s per ft²) were calculated for use in subsequent HRAs. These emission factors were calculated across three different laboratory types:

- Lab Type I: Chemistry and Chemical Engineering
- Lab Type II: General Biological Sciences
- Lab Type III: Physical Sciences/Other (Engineering, Geology, Physics, etc.)

Table C.3-1 summarizes the calculated emission factors per Lab Type.[17] Annualized emissions were based on the annual chemical usage. The data collection effort did not provide enough information to directly calculate potential short-term hourly emissions. The ratios between peak hourly and annual average emissions reported in other studies were examined, and an average ratio of 5.18 was calculated, as described further in the June 28, 2000 HRA. Thus, maximum hourly emissions were assessed at 5.18 times the annual average emission estimates for the purposes of the baseline HRA. Note that if the calculated annual emissions were assumed to be emitted 8 hours per day, 5 days per week for 52 weeks, each operating hour would have 4.2 times the annual average emission rate if all hours were assumed to emit the same amount.

In a later HRA performed for the UC Davis campus, emissions of two radioisotopes were included as potential emissions from experiments involving radioactive tracers – tritium (H-3) and iodine 125 (I-125). [18] The June 28, 2000 HRA for UCB did not include any laboratory emissions of radioisotopes. Radioisotopes are not tracked in the UCB CISIS or POTS databases, but rather by the UCB Office of Environment, Health & Safety (EHS) under UCB's Department of Health Services (DHS) Broadscope license. The types of experimental procedures involving radioisotopes are similar between UCB and UC Davis; therefore, the laboratory emission factors for H-3 and I-125 used in the 2003 UC Davis HRA have now been included in the updated baseline HRA for UCB. These emission factors are included in Table C.3-1.

COGENERATION PLANT AND CENTRAL PLANT BOILERS. Actual fuel use data (natural gas and fuel oil) from 1998 were obtained from UCB and applied to EPA emission factors contained in AP-42.[19] Specifically, Section 1.3, Table 1.3-9 (September 1998), Section 1.4, Tables 1.4-3 and 1.4-4 (July 1998), and Section 3.1, Table 3.1-3 (April 2000) of AP-42 were used. Emissions calculated from annual fuel use were divided by 8760 hours to estimate annual average emissions. Maximum hourly emissions were based on the rated capacities of each unit.

LITHOGRAPHIC/ENVELOPE PRINTING OPERATIONS. UCB staff provided 1998 annual throughput data for fountain solutions, clean-up solvents, and other chemical products used in these operations, as well as the chemical composition of these materials from Material Data Safety Sheets (MSDSs). It was assumed that 100 percent of the calculated volatile chemicals evaporate. Annual average emissions were estimated by dividing the annual evaporation totals by 8760 hours. Maximum hourly emissions were assessed by dividing the annual totals by 40 hours per week, 52 weeks per year.

PAINTING/SOLVENT CLEANING. UCB staff provided 1998 annual throughput data for the usage of paints and solvent cleaners, as well as the chemical composition of these materials from MSDSs. It was assumed that 100 percent of the calculated volatile chemicals evaporate. Annual average emissions were estimated by dividing the annual evaporation totals by 8760 hours. Maximum hourly emissions were assessed by dividing the annual totals by 40 hours per week, 52 weeks per year.

HAZARDOUS MATERIALS FACILITY (HMF). A previous 1994 study on the UCB HMF was consulted and the following surrogate chemicals from that study were used to characterize potential health risks: carbon tetrachloride, chloroform, formaldehyde, and methylene chloride.[20] An EPA equation for the volatilization of liquids as a result of airflow over a exposed liquid surface was used, which is described in the June 28, 2000 HRA. The HMF has a carbon filter at its vent that captures at least 95 percent of the emissions.

TABLE C.3-1

LABORATORY EMISSION FACTORS (GRAMS PER SECOND PER SQUARE FOOT OF WET LABORATORY FLOOR SPACE) FROM UC BERKELEY BASELINE HRA[a]

Chemical	Annual Emissions (g/s per ft^2) Lab Type I	Annual Emissions (g/s per ft^2) Lab Type II	Annual Emissions (g/s per ft^2) Lab Type III	Max Hourly Emissions (g/s per ft^2) Lab Type I	Max Hourly Emissions (g/s per ft^2) Lab Type II	Max Hourly Emissions (g/s per ft^2) Lab Type III
Acetonitrile	1.265E-08	5.359E-09	4.673E-10	6.553E-08	2.776E-08	2.420E-09
Benzene	2.250E-09	1.051E-10	7.319E-11	1.165E-08	5.443E-10	3.791E-10
Bromine and compounds	2.142E-10	8.506E-12	3.629E-11	1.110E-09	4.406E-11	1.880E-10
t-Butyl alcohol	1.089E-10	4.575E-08	1.218E-10	5.640E-10	2.370E-07	6.307E-10
Carbon tetrachloride	2.005E-10	6.178E-10	4.811E-10	1.039E-09	3.200E-09	2.492E-09
Chloroform	2.730E-08	8.272E-09	9.796E-10	1.414E-07	4.285E-08	5.074E-09
Dimethylformamide	5.496E-10	3.110E-10	3.315E-12	2.847E-09	1.611E-09	1.717E-11
Dioxane, 1,4-	2.614E-09	1.966E-10	2.276E-11	1.354E-08	1.018E-09	1.179E-10
Epichlorohydrin	2.460E-11	3.217E-13	0.000E+00	1.274E-10	1.666E-12	0.000E+00
Ethanol	9.952E-08	7.687E-07	3.011E-08	5.155E-07	3.982E-06	1.560E-07
Ethyl acetate	6.504E-08	7.945E-10	2.041E-11	3.369E-07	4.115E-09	1.057E-10
Ethyl Ether	3.555E-08	3.174E-10	3.159E-10	1.841E-07	1.644E-09	1.636E-09
Formaldehyde	9.349E-11	7.771E-09	9.832E-10	4.843E-10	4.025E-08	5.093E-09
Glutaldehyde	3.999E-11	2.441E-10	9.405E-11	2.072E-10	1.264E-09	4.872E-10
n-Hexane	1.751E-10	4.214E-10	8.073E-10	9.068E-10	2.183E-09	4.182E-09
Hydrazine	1.185E-11	6.773E-12	5.874E-13	6.136E-11	3.509E-11	3.043E-12
Hydrochloric acid	9.452E-10	1.998E-08	8.539E-09	4.896E-09	1.035E-07	4.423E-08
Hydrofluoric acid	3.195E-12	1.508E-10	1.790E-09	1.655E-11	7.814E-10	9.270E-09
Isopropanol	3.679E-09	2.523E-08	1.751E-08	1.906E-08	1.307E-07	9.071E-08
Methyl alcohol	1.155E-07	8.950E-08	4.387E-08	5.982E-07	4.636E-07	2.272E-07
Methyl bromide	2.911E-10	6.261E-08	0.000E+00	1.508E-09	3.243E-07	0.000E+00
Methylene chloride	1.074E-07	1.237E-09	2.839E-10	5.564E-07	6.410E-09	1.471E-09
Phosgene	7.735E-11	0.000E+00	0.000E+00	4.007E-10	0.000E+00	0.000E+00
Pyridine	4.676E-10	1.395E-10	5.244E-11	2.422E-09	7.224E-10	2.716E-10
Tetrachloroethylene	9.834E-11	5.741E-12	4.900E-11	5.094E-10	2.974E-11	2.538E-10
Tetrahydrofuran	1.720E-08	1.220E-10	5.176E-13	8.908E-08	6.322E-10	2.681E-12
Toulene	7.734E-09	7.746E-10	4.114E-10	4.006E-08	4.013E-09	2.131E-09
1,1,1-Trichloro-ethane	2.118E-11	2.374E-11	1.374E-09	1.097E-10	1.230E-10	7.117E-09
Trichloroethylene	0.000E+00	6.249E-11	3.906E-10	0.000E+00	3.237E-10	2.023E-09
Triethylamine	6.538E-10	1.315E-10	0.000E+00	3.387E-09	6.814E-10	0.000E+00
Xylenes	2.696E-10	1.543E-09	8.420E-10	1.397E-09	7.994E-09	4.362E-09
Hydrogen-3 (Tritium)	0.000E+00	3.100E-14	0.000E+00	0.000E+00	8.600E-14	0.000E+00
Iodine-125	0.000E+00	1.240E-14	0.000E+00	0.000E+00	3.500E-14	0.000E+00

[a] Exceptions are emission factors for the two radioisotopes, hydrogen-3 and iodine-125, which were obtained from the Air Toxics Health Risk Assessment for the University of California Davis 2003 Long Range Development Plan (URS, April 2003).

EXISTING EMERGENCY GENERATORS. During the development of the June 28, 2000 HRA, diesel-fired emergency generators were exempt from air permitting requirements, and thus, were not included the June 28, 2000 HRA. Since publication of the June 28, 2000 HRA, diesel-fired emergency generators have became a larger statewide issue. The California Air Resources Board (CARB) issued permitting guidance for stationary diesel-fueled engines in October 2000.[21] Since then, health risk evaluations for emergency diesel engines have become commonplace. Health risk toxicity factors for diesel emissions are based on the diesel particulate matter (DPM) in the exhaust. Thus, in the updated baseline HRA runs summarized below, existing emergency generators have now been included.

For existing generators, data on the make, model/engine year, and capacity of 21 on-campus diesel-fired emergency generators and nine off-campus diesel-fired emergency generators operated by UCB were provided by UCB EH&S. The off-campus generators are associated with student residence halls and three off-campus academic buildings. For recently permitted newer generators, the permitted DPM emission rates were used in the analysis, which ranged from 0.05-0.15 grams per brake horsepower per hour (g/bhp-hr), with one exception at 0.4 g/bhp-hr. For older engines, specific emissions information was not available. However, for six of these engines (all 1996-1999 model years), a CARB emission standard of 0.4 g/bhp-hr was in effect, thus this value was used. For all other existing engines, an emission factor of 1 g/bhp-hr from the EPA AP-42 *Compilation of Air Pollutant Emission Factors* was used.

Total emissions per year from the routine testing and maintenance of existing emergency generators were calculated assuming an average of 30 minutes per week (or 26 hours per year) per generator at a load factor of 25 percent. Since DPM health risks are long-term (cancer risk and chronic non-cancer health effects), annualized emission rates in grams per second were calculated by dividing the total annual DPM emissions per generator by the number of seconds in one year.

SUMMARY OF BASELINE HRA MODELING METHODOLOGY
Section 4.0 of the June 28, 2000 HRA should be consulted for more modeling details. A summary description follows.

DISPERSION MODELING. Atmospheric dispersion modeling was performed with ISCST3. In the recent updated runs with the existing diesel-fired emergency generators, the most current version if ISCST3 was used (Version 02035). Eighty-five point sources were used to represent rooftop vents and stacks for laboratory emissions. This is two less than in the June 28, 2000 HRA because stacks for Calvin and Donner labs were removed since they are included in the Lawrence Berkeley National Laboratories (LBNL) LRDP HRA. To represent horizontal laboratory vent releases from Morgan Hall and (the former) Stanley Hall, two volume sources were used. In addition, eight point sources were used to represent the cogeneration turbine, three Central Plant boilers, three UCB Printing Services stacks, and one HMF building vent. Finally, four volume sources were placed in four different campus locations to represent campus-wide painting and solvent cleaning operations. To account for potential pollutant plume "downwash" from

the effect of campus structures, campus building dimensions and heights were input with building and stack locations in Universal Transverse Mercator (UTM) coordinates into the EPA Building Profile Input Program (BPIP). BPIP creates an input file for ISCST3 to perform the downwash calculations.

METEOROLOGICAL DATA. The closest location of available meteorological data to UCB is the meteorological station at Lawrence Berkeley National Laboratories (LBNL). UCB operates a meteorological station near the corner of Oxford and Bancroft Way, but meteorological data are not yet available from this station for dispersion modeling. The June 28, 2000 HRA presented a comparison of raw data collected at both stations over a selected 23-day period. The data collected include temperature, wind speed, wind direction, and standard deviation of the wind direction ("sigma theta"). The data showed comparable temperatures and wind directions, but wind speeds and sigma thetas were generally greater for the LBNL site than the UCB site over this limited timeframe. However, given its proximity and very similar wind direction patterns, the LBNL data were considered representative of UCB. A one-year data set from LBNL for the 1997 meteorological year was used in the baseline HRA.

RECEPTORS. Receptors were placed at 50-meter increments along the Central Campus boundary. Additional receptors were placed at 100-meter increments to a distance of one kilometer (km) and at 500-meter increments to a distance of approximately 5 km from the Central Campus boundary. Sensitive receptors, such as schools, hospitals and daycare centers were also identified. Appendix C of the June 28, 2000 HRA contains a report produced by Environmental Data Resources, Inc. (EDR), on July 30, 1999, identifying the sensitive receptors used in the June 28, 2000 UCB HRA. An updated review of current sensitive receptors has since been conducted in coordination with LBNL. A table of the current sensitive receptors included in this updated baseline HRA (and in the future 2020 LRDP HRA) appears at the end of this subappendix.

ASSESSMENT OF HEALTH RISKS. The approach in the June 28, 2000 HRA involved the following dispersion model inputs to estimate cancer risk and non-cancer hazard indices (non-cancer risk) from the inhalation pathway:

- *Cancer Risk:* Stack Emission = Σ [(Emission of chemical i) $\times$ (URF for chemical i)]
- *Non-Cancer Risk:* Stack Emission = Σ [(Emission of chemical i) $\div$ (REL for chemical i)]

That is, the emission inputs are the sums of emissions for each chemical either multiplied by its unit risk factor (URF) or divided by its reference exposure level (REL). For the cancer risk and chronic hazard index calculations, the annual average emission rates of each chemical i were used in these summations, and for the acute hazard index calculations, maximum hourly emission rates were used. In this approach, the model inputs are in terms of cancer risk and hazard index, not emission rates, yielding a direct model calculation of cancer risk and hazard index via the inhalation pathway at each receptor point. This analysis was used to identify the maximum points of impact.

The URLs and RELs used were the most currently available toxicity factors published by OEHHA[24]. For chemicals without OEHHA, CAPCOA[26] factors were used. For chemicals without OEHHA or CAPCOA factors, toxicity factors derived from EPA literature or occupational exposure standards were used, as described in Section 6.0 of the June 28, 2000 HRA. These toxicity factors have been updated since the publication of the June 28, 2000 HRA. A table of the toxicity factors used in the updated baseline and future LRDP HRAs is included at the end of this subappendix. As discussed above, the June 28, 2000 HRA for UCB did not include any laboratory emissions of radioisotopes, thus in the current updated baseline HRA, emission factors for tritium (H-3) and iodine 125 (I-125) used in a recent HRA performed for the UC Davis campus[27] have been included. The cancer URFs used for these radioisotopes in the 2003 UC Davis HRA, derived from EPA *1993 Health Effects Assessment Summary Tables* (HEAST), are included in the toxicity factor table found at the end of this subappendix.

Subsequent calculations were performed in the June 28, 2000 HRA to assess exposures to toxic air contaminants through the following non-inhalation exposure pathways: dermal absorption, incidental soil ingestion, mother's milk, and consumption of locally-grown produce (i.e., home gardens). Since the combustion sources (cogeneration turbine and campus boilers) are the only particulate sources,[28] ISCST3 was re-run with only those sources and the location of maximum deposition determined. The point of maximum deposition was not collocated with the maximum inhalation health risk location, but non-inhalation health risks calculated at this location were added to the maximum inhalation health risk calculations in a conservative assessment. Non-inhalation health risks were estimated by spreadsheets programmed with the non-inhalation pathway algorithms..[29] This analysis showed the contribution of the non-inhalation pathways to be an insignificant addition to overall health risks. Therefore, in the updated baseline HRA and future LRDP HRA results presented below, only the inhalation pathway calculations are used to assess health risks.

SUMMARY OF BASELINE HRA RESULTS

FINDINGS OF JUNE 28, 2000 HRA. The maximum lifetime cancer risk from existing stationary campus sources (excluding diesel-fired emergency generators) calculated at a residential maximally exposed individual (MEI) exposure location was estimated to be **1.30 in one million** in the Strawberry Canyon area. This location is situated in higher terrain than the campus and in the prevailing downwind direction from the campus. Therefore, sources with elevated release points, such as the cogeneration plant and campus laboratories, dominated the calculated maximum cancer risk. Also, this location is close to the College of Chemistry laboratories, which increases the contribution from laboratory emissions relative to off-campus locations farther away. The residential MEI calculation assumed continuous exposure over a 70-year period and an average adult body weight of 70 kilograms (154 pounds).

Non-cancer health risk from TACs was also assessed by the "hazard index", which is the sum of the ratios of each chemical's actual exposures to acceptable exposures. Hazard indices are calculated for both long-term (chronic) and short-term (acute) health effects. Hazard indices less than 1.0 indicate an acceptable non-cancer health risk. The highest calculated hazard indices for existing campus operations were calculated to be **0.074** for chronic exposures and **0.62** for acute exposures.

The maximum cancer risk calculated for any sensitive receptor was **0.22 in one million** for an employee at the on-campus day care center at Girton Hall, near Gayley Road. An incremental cancer risk of **0.17 in one million** was calculated for a child at the Girton Hall on-campus day care center, assuming an average child's body weight of 15 kilograms (33 pounds) and inhalation rate of 10 cubic meters of air per day, which is approximately half that of an adult's inhalation rate.

FINDINGS OF THE 2003 BASELINE HRA RE-RUN. To support the 2003 UCB LRDP, the baseline HRA was re-run with the same inputs used in the 2000 HRA, but in addition, the 30 existing diesel-fired emergency generators described above (on- and off-campus) were added, as well as the other adjustments discussed in the previous sections of this subappendix. This caused a shift in the cancer risk MEI location from the Strawberry Canyon area to the north campus boundary along Hearst Avenue and an increase in the cancer risk values.

The maximum lifetime cancer risk from existing stationary campus sources calculated at a residential MEI exposure location was estimated to be **4.3 in one million** along Spruce Street, north of Hearst Street. The residential MEI calculation assumed continuous exposure over a 70-year period and an average adult body weight of 70 kilograms (154 pounds). Diesel-fired emergency generators dominate the MEI cancer risk. Emergency generators are 89 percent of the MEI cancer risk, laboratories are 10 percent, and all other sources including cogeneration plant/central boilers comprise the remaining 1 percent. The maximum cancer risk considering diesel generators in Strawberry Canyon is now predicted to be about 3.0 in one million, with 55 percent coming from the diesel generators, 37 percent from the cogeneration plant/central boilers, and 8 percent for the laboratories.

The highest calculated hazard indices for existing operations in the 2003 HRA re-run with diesel generators were **0.075** for chronic exposures and **0.15** for acute exposures. The maximum cancer risk calculated for any sensitive receptor was **0.61 in one million** for an employee at the on-campus day care center at Girton Hall, near Gayley Road. An incremental cancer risk of **0.47 in one million** was calculated for a child at the Girton Hall on-campus day care center, assuming an average child's body weight of 15 kilograms (33 pounds), an inhalation rate of 10 cubic meters of air per day (which is approximately half that of an adult's inhalation rate), and an exposure of 10 hours per day, 240 days per year for 12 years. Child exposure results for all other schools and day care centers in the surrounding area were lower. The calculation of adjustment factors to a 70-year

risk calculation for these types of receptors is shown at the end of this subappendix.

Dispersion modeling input and output files, and tables showing the emission calculations for the 2003 Baseline HRA are presented at the end of this subappendix.

FUTURE 2020 LRDP HRA

The following description provides a summary of the methods used to estimate future 2020 UCB LDRP health risks.

FUTURE 2020 LRDP HRA EMISSION SOURCES

Same source types as the baseline HRA:
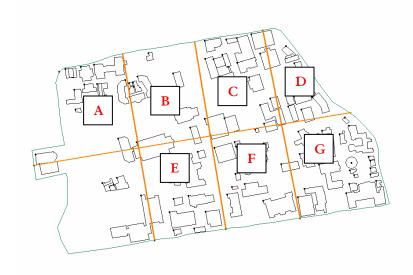
- Campus-wide laboratories
- Cogeneration plant (combustion turbines and duct burners)
- Three central plant boilers
- Lithographic and envelope printing operations
- Campus-wide painting and solvent cleaning operations
- Hazardous Materials Facility
- Diesel-fired emergency generators

CAMPUS LABORATORIES. Existing laboratory emissions were modeled as they were in the 2003 re-run of the baseline UCB HRA. That is, by the chemicals estimated on a building-per-building basis. As shown in Table C.3-2 below, the total wet laboratory square footage in the existing campus was estimated at 454,952 square feet (after deletion of Calvin and Donner labs from the UCB HRA, as described above). To maintain flexibility in the analysis of future laboratory space under the LRDP, the future laboratory emissions were estimated using the maximum emission factor per chemical across all Lab Types. In this way, future laboratory space was not designated as Lab Type I, II, or III, as the maximum emission factor per chemical was used for all new laboratory space. It is recognized that future laboratory space may occur outside the Campus Park under the LRDP. For the purposes of defining maximum potential health risk, modeling all future laboratory emissions as originating from the Campus Park should maintain a conservative analysis.

A December 8, 2003 memo from Kerry O'Banion, Principal Planner with UCB Facility Services, projected a net assignable square footage (ASF) of 383,620 square feet of new laboratory space under the 2020 LRDP, and an estimate of 50% of this space being wet laboratory space, or 191,810 square feet. This was assumed to be all wet laboratory space. This square footage is based on estimated increases in Laboratory Categories D and F, which includes Engineering, Computer Science, Chemistry, Biology, Physics Environmental Science, and Psychology. It does not include laboratory space associated with the Northeast Quadrant Science and Safety (NEQSS) Projects, which was already approved under the 1990 LRDP but not yet operational thus not included in the June 28, 2000 HRA. The NEQSS Projects include a reduction in laboratory space with the demolition of old

Stanley Hall, and the inclusion of new laboratory space with the new Stanley Hall and Davis Hall North addition.

The placement of new laboratory emission release points was correlated with the locations of existing laboratory locations. This was accomplished by first splitting the campus into eight "campus zones", as shown in the figure below.

The existing laboratory space was then broken down according to the section of the campus in which each building is located. Note that the southwest corner of the campus has not been identified as a "zone", as there are no existing wet laboratories within this area. Table C.3-2 summarizes existing laboratory space by zone. This breakdown was used to calculate the percent of existing laboratory space in each zone. To allocate the assumed new laboratory space per campus "zone", the percentages per zone based on the existing laboratory space were applied to the sum of the 2020 LRDP wet laboratory space (191,810 ft^2) and the NEQSS wet laboratory space (147,035 ft^2). The NEQSS wet laboratory space included 44,685 ft^2 for Davis Hall and 102,350 ft^2 for Stanley Hall, as described in the NEQSS EIR.[30] Wet laboratory space per zone attributable to the 2020 LDRP was then calculated by subtracting the Davis Hall and Stanley Hall laboratory space estimates from the new laboratory space estimates for Campus Zones C and D, since these new laboratory spaces were approved under the 1990 LRDP. The total cumulative wet laboratory space modeled for the 2020 LDRP was then the sum of the existing, NEQSS, and 2020 LRDP wet laboratory space estimates, or 793,797 ft^2.

TABLE C-3-2
EXISTING UC BERKELEY LABORATORY SPACE PER CAMPUS "ZONE"

Building	Lab Type	Lab Size (ft²)	Campus Zone
Barker	II	20,461	A
Hilgard	II	16,748	A
Koshland	II	49,455	A
Morgan	II	12,119	A
Mulford	II	5,461	A
NWAF	II	1,147	A
NWAF	III	1,213	A
Warren	II	7,063	A
LSA	II	37,766	Aª
Lab Space Total for Section A		**151,433**	**Percent of total 33.28%**
VLSB	II	24,351	B
Wellman	II	6,356	B
Lab Space Total for Section B		**30,707**	**Percent of total 6.75%**
Cory	III	9,970	C
Le Conte	III	17,039	C
Davis (existing)	III	11,615	C
Etcheverry	III	9,193	C
Hesse	III	12,648	C
McCone	III	7,828	C
O'Brien	III	8,811	C
Lab Space Total for Section C		**77,104**	**Percent of total 16.95%**
Giauque	I	7,372	D
Gillman	I	6,797	D
Hildebrand	I	24,348	D
Latimer	I	54,524	D
Lewis	I	14,342	D
Stanley (former)	I	917	D
Stanley (former)	II	14,733	D
Tan	I	23,518	D
Lab Space Total for Section D		**146,551**	**Percent of total 32.21%**
VLSB		24,351	E
Lab Space Total for Section E		**24,351**	**Percent of total 5.35%**
Birge	III	19,275	F
Lab Space Total for Section F		**19,275**	**Percent of total 4.24%**
Minor	III	4,710	G
Minor Add.	III	821	G
Lab Space Total for Section G		**5,531**	**Percent of total 1.22%**
Total Square Feet		**454,952**	**100.00%**

ª This building is actually half in the southwestern section. For purposes of this analysis, the entire building is assumed in the northwestern section (ID = A).

TABLE C.3-3
CUMULATIVE LABORATORY SQUARE FOOTAGE FOR FUTURE LRDP HRA

Campus Zone	Existing Wet Lab Space (ASF)	Assumed Wet Lab Space (ASF) under 2020 LRDP	Wet Lab Space Increase (ASF) under NEQSS EIR	Total Assumed Cumulative Wet Lab Space (ASF) in 2020 LDRP HRA
A	151,433	112,802	0	264,233
B	30,707	22,872	0	53,579
C	77,104	12,749	44,685	134,538
D	146,551	6,792	102,350	255,693
E	24,351	18,128	0	42,479
F	19,275	14,367	0	33,642
G	5,531	4,134	0	9,665
	454,952	191,810	147,035	793,797

Table C.3-3 summarizes the estimated total laboratory space for each campus zone used in the future 2020 LRDP HRA modeling. Please note that because total laboratory space estimates were used with calculated rounded percentages to assess laboratory space per campus zone, there are rounding errors causing the individual campus zone values not to sum exactly to the totals. These rounding errors are fractions of one percent.

COGENERATION PLANT AND CENTRAL PLANT BOILERS. Future campus steam demand is estimated to be accommodated by the current cogeneration turbine and central plant boiler capacity. Therefore, maximum hourly emissions were assessed as in the baseline HRA by assuming the turbine and boilers all operate at capacity in a given hour, which is an overestimate of actual expected operations. These maximum fuel uses were multiplied by the same AP-42 emission factors described for the baseline HRA for the acute hazard index calculations. To assess average annual fuel use for the cancer risk and chronic hazard index calculations, the following assumptions were made.

The actual annual fuel use modeled in the June 28, 2000 HRA (which was also used in the 2003 HRA re-run) was 75.6 percent of the cogeneration turbine/duct burner heat input capacity and about 9.7 percent of the annual heat input capacity of the three central plant boilers. According to UCB Physical Plant staff (Paul Black, July 31, 2003), the current campus peak steam demand is about 240,000 pounds per hour (pph). The cogeneration turbine's heat recovery steam generator (HRSG) has a steam capacity of approximately 170,000 pounds per hour (pph), of which approximately 30,000 pph is needed for turbine NOx control and other auxiliary equipment; the capacity of the three steam boilers is approximately 240,000 pph (Paul Black, UCB Physical Plant staff, July 31, 2003). Although this implies that the current peak campus steam demand is about 63 percent of the current system capacity, for the purposes of the future LRDP HRA, the turbine, duct burners, and three boilers were each modeled at maximum capacity for short-term emissions.

To represent potential long-term emissions under the 2020 LRDP, UCB Physical Planning staff provided an estimate of an additional 8,181,000 pounds per year (lb/yr) of steam demand under the 2020 LRDP representing a 9 percent increase over the current annual campus steam use (Billi Romain, UCB Physical and Environmental Planning, November 24, 2003). Under typical operating conditions, the cogeneration turbine operates near capacity most of the time, but the duct burners are used sporadically (40 percent to 60 percent of the time at varying levels). This is the reason for potential additional HRSG capacity on an annual basis; however, it is difficult to predict the actual increased duct burner use to meet additional steam demand. The only other current sources of campus steam are the existing central plant boilers.

It is very likely that over the course of development under the 2020 LRDP, one or more of the three currently operating central plant boilers will be replaced with more efficient boilers. However, for the purposes of this 2020 LRDP, it is assumed that the estimated annual increase of 8,181,000 lb/yr in campus steam demand (or an hourly average of 934 pph) will be met by increased operation of one of the existing central boilers. Based on information from UCB, Boiler #2 has the highest heat input capacity (0.137 MMBtu/hr) and the lowest steam production potential (80,000 pph), thus it was selected as the boiler for this analysis (i.e., less efficient). An increase of approximately 1,000 pph on an annual basis represents a 1.25 percent increase in annual Boiler #2 firing. This increases the overall use of the three central plant boilers from 9.7 percent to 10.2 percent. Therefore, annual average emissions under the 2020 LRDP assume the current use of 75.6 percent of capacity for the turbine/duct burners, and an increase in Boiler #2 emissions of 1.25 percent on an annual basis.

LITHOGRAPHIC/ENVELOPE PRINTING OPERATIONS. These operations were assumed to be at the same rate per building square footage as in the 2003 baseline HRA. The current academic and support building space of the UCB campus is 11,600,000 gross square feet (GSF), and the growth under the 2020 LRDP is projected at 2,200,000 GSF, or approximately 19 percent (round up to 20 percent). Therefore, for the purposes of the LRDP HRA, the emissions for lithographic/envelope printing operations in the 2003 baseline HRA were increased by 20 percent.

PAINTING/SOLVENT CLEANING. These operations were assumed to be at the same rate per building square footage as in the 2003 baseline HRA. The current academic and support building space of the UCB campus is 11,600,000 gross square feet (GSF), and the growth under the 2020 LRDP is projected at 2,200,000 GSF, or approximately 19 percent (round up to 20 percent). Therefore, for the purposes of the LRDP HRA, the emissions for painting/solvent cleaning operations in the 2003 baseline HRA were increased by 20 percent.

HAZARDOUS MATERIALS FACILITY (HMF). These operations were assumed to be at the same rate per laboratory square footage as in the 2003 baseline HRA. The estimated laboratory square footage in the 2003 baseline HRA was 454,952 square feet, and the total estimated laboratory square footage in the future 2020 LRDP HRA was estimated at 793,797 square feet, an increase of 75 percent. Therefore, for the purposes of the LRDP HRA, the emissions from the HMF in the 2003 baseline HRA were increased by 75 percent.

EMERGENCY GENERATORS. The 30 existing diesel-fired emergency generators modeled in the 2003 baseline HRA were modeled in the future 2020 LRDP HRA at the same locations and emissions levels. The total capacity of these 30 existing emergency generators is about 12,000 brake horsepower (bhp). New emergency generators were placed at 10 estimated locations under the 2020 LRDP. Emergency generators associated with research use were assumed to be sized at 750 bhp, and emergency generators associated with increased student housing and other general building emergency power and lighting use were assumed to be sized at 300 bhp. The total new capacity of the ten assumed emergency generators was calculated to be 4,350 bhp, or about a 36 percent increase.

For the purposes of the future 2020 LRDP HRA, the modeled new emergency generators were placed in reasonable locations relative to projected new growth. All new emergency generators were assumed to meet the currently proposed CARB DPM emission standard of 0.15 g/bhp-hr for emergency standby engines.[32] Total emissions per year from the routine testing and maintenance of the future emergency generators were calculated assuming an average of 30 minutes per week (or 26 hours per year) per generator at a load factor of 25 percent. Since DPM health risks are long-term (cancer risk and chronic non-cancer health effects), annualized emission rates in grams per second were calculated by dividing the total annual DPM emissions per generator by the number of seconds in one year.

SUMMARY OF FUTURE 2020 LRDP HRA MODELING METHODOLOGY

The modeling methodology, meteorological data and receptors used in the baseline HRA (described above) were identical in the future 2020 LRDP HRA. The differences between the 2003 baseline HRA and the 2020 LRDP HRA are the emission input differences described above for the central plant boilers, the assumed new laboratory emissions, and assumed future emergency generators. Seven new point sources were added to represent the increased laboratory emissions (one hypothetical stack per campus zone depicted in Table 2 and described above), emission points for Stanley Hall and Davis Hall were revised to be consistent with the new buildings under NEQSS, and 10 new point sources to represent future emergency generators.

SUMMARY OF FUTURE 2020 LRDP HRA RESULTS

FINDINGS OF THE 2020 LRDP HRA. The maximum lifetime cancer risk from stationary campus sources from 2020 emission sources (existing, NEQSS, and 2020 LRDP) at a residential MEI exposure location was estimated to be **5.4 in one million** along Hearst Avenue, east of Arch Street. The residential MEI calculation assumed continuous exposure over a 70-year period and an average adult body weight of 70 kilograms (154 pounds). Because the new diesel-fired generators were assumed to meet current clean engine standards, the assumed increase in laboratory emissions relative to the baseline HRA resulted in a greater contribution from laboratories than in the 2003 baseline HRA (29 percent in the 2020 LRDP HRA versus 10 percent in the 2003 baseline HRA). Diesel-fired emergency generators were still the majority of the MEI cancer risk, at 69 percent. All other sources (including the cogeneration/central plant) contributed less than 1 percent each.

The highest calculated hazard indices for the 2020 LRDP HRA were **0.13** for chronic exposures and **0.29** for acute exposures. The maximum cancer risk calculated for any sensitive receptor was **0.75 in one million** for an employee at the on-campus day care center at Girton Hall, near Gayley Road. An incremental cancer risk of **0.58 in one million** was calculated for a child at the Girton Hall on-campus day care center, assuming an average child's body weight of 15 kilograms (33 pounds) and inhalation rate of 10 cubic meters of air per day (which is approximately half that of an adult's inhalation rate), and an exposure of 10 hours per day, 240 days per year for 12 years. Child exposure results for all other schools and day care centers in the surrounding area were lower. The calculation of adjustment factors to a 70-year risk calculation for these types of receptors is shown at the end of this subappendix.

Dispersion modeling input and output files, and tables showing the emission calculations for the 2020 LRDP HRA are presented at the end of this subappendix.

Average Ambient Concentrations of Toxic Air Contaminants
Measured in Oakland, Oak Road (Davie Stadium) in 2001

COMPOUND	CONCENTRATION		UNIT RISK	CANCER RISK (Chances in
	(ppb)	($\mu g/m^3$)	($\mu g/m^3$)$^{-1}$	one million)
Gaseous TACs*				
Acetaldehyde	*0.70*	*1.27*	2.70E-06	*3.4*
1,3-Butadiene	*0.14*	*0.31*	1.70E-04	*52.7*
Benzene	0.45	1.46	2.90E-05	42.4
Carbon Tetrachloride	0.10	0.64	4.20E-05	26.9
Formaldehyde	*2.04*	*2.51*	6.00E-06	*15.1*
Perchloroethylene	0.05	0.34	5.90E-06	2.0
Methylene Chloride***	0.32	1.15	1.00E-06	1.2
MTBE	0.45	1.65	2.60E-07	0.4
Chloroform	0.01	0.05	5.30E-06	0.3
Trichloroethylene	*0.02*	*0.10*	2.00E-06	0.2

COMPOUND	CONCENTRATION		UNIT RISK	CANCER RISK (Chances in
	(ng/m^3)	($\mu g/m^3$)	($\mu g/m^3$)$^{-1}$	one million)
Particulate TACs*				
Chromium (Hexavalent)	*0.11*	*1.11E-04*	1.50E-01	*16.7*
*Polycyclic Aromatic Hydrocarbons***	*0.52*	*5.22E-04*	1.10E-03	*0.6*
Nickel	*3.46*	*3.46E-03*	2.60E-04	*0.9*
Lead	*7.28*	*7.28E-03*	1.20E-05	*0.1*
Total Risk for All TACs				**163**

* All values are from BAAQMD monitoring equipment (BAAQMD 2003), *except those in italics* which come from the average of the five ARB monitoring sites (San Francisco, San Jose, Fremont, San Pablo, and Concord). ARB values are from 2000, except for the Concord and San Pablo sites at which sampling was suspended in 2000. The concentrations used from these two sites are the means of daily samples collected during the period March 1, 1999 through February 29, 2000. In calculating average concentrations, samples less than the limits of detection (LOD) were assumed to equal one half the LOD. Risks are calculated for the carcinogenic TACs for which routine sampling was performed by the BAAQMD and ARB, except for ethylene dibromide, ethylene dichloride, and vinyl chloride, which were excluded because none of these compounds were detected in any of the air samples taken in the Bay Area.

** The PAH concentration represents the sum of the following species collected as PM10: benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h) anthracene, and indeno(1,2,3-cd)pyrene.

*** For methylene chloride, measurements at Davie Stadium were all non-detect with an LOD of 0.50 ppb. The average methylene chloride reported as a Bay Area average from other monitoring stations was 0.32 ppb in 2001, therefore this value is used rather than 1/2 LOD of 0.25 ppb.

UC Berkeley Baseline and LRDP Health Risk Assessment:
Sensitive Receptors Description and Location

UTM Coordinates (Meters)		Receptor Description
x	y	
560631.8	4195979.1	ADVANTAGE PLUS CHILD DEVELOPMENT CENTER
562243.3	4194420.9	ALBANY HIGH SCHOOL
564315.1	4190755.4	Alta Bates Med Cntr: D/P Snf
566137.3	4190103.5	Alta Bates Med. Cntr.: Herrick
563584.3	4187272.7	ANNA YATES ELEMENTARY SCHOOL
564160.4	4192207.6	ARTS MAGNET (BERKELEY) ELEM
564976.7	4189900.9	ASHBY CARE CENTER
564272.9	4191222.3	BERKELEY HIGH SCHOOL
565506.6	4193655.4	BERKELEY HILLS NURSERY SCHOOL
564228.3	4192049.3	BERKELEY MONTESSORI SCHOOL
565202.3	4192629.0	BERKELEY MONTESSORI SCHOOL
564982.4	4189910.6	BERKELEY PINES SKILLED NURSING FACILITY
563995.7	4189168.5	BERKELEY YMCA - HARMON STREET HEAD START PROGRAM
563752.5	4189957.0	BERKELEY YMCA - MCGEE CENTER HEADSTART
562625.1	4190858.5	BERKELEY YMCA HEAD START - BANCROFT WAY #1
562781.3	4190899.4	BERKELEY YMCA HEAD START - BANCROFT WAY #2
563176.8	4189856.4	BERKELEY YMCA HEAD START - SAN PABLO PARK
562664.9	4191391.4	BERKELEY YMCA HEAD START-PARENT & CHILD CNT.
564065.6	4187698.4	BLOSSOM DAY SCHOOL
561017.0	4197223.2	BRIGHT STAR MONTESSORI SCHOOL
565787.7	4185459.7	BROADWAY CHILDREN'S SCHOOL
562902.8	4185149.9	BUNCHE CENTER FOR REDIRECTION
565212.1	4187427.6	CARTER MIDDLE SCHOOL
561270.8	4196434.9	CASA CERRITO NEIGHBORHOOD CENTER
561082.1	4197015.6	CASTRO ELEMENTARY SCHOOL
563194.4	4192167.8	CEDAR CREEK MONTESSORI DAY CARE INCORPORATED #1
564487.4	4192391.3	CEDAR STREET CHILDCARE CENTER
565870.7	4186942.3	CENTRAL LUTHERAN PRE-SCHOOL
561868.5	4192360.3	CENTRO VIDA BILINGUAL CHILDCARE CENTER
566688.0	4189282.9	CHABOT ELEMENTARY SCHOOL
562954.6	4191109.9	CHAPARRAL HOUSE
563142.1	4192535.6	CHILD EDUCATION CENTER
564474.4	4187853.5	CHILDREN'S HOSPITAL – OAKLAND
565801.4	4185099.9	CIRCLE CHILDREN'S CENTER
566308.6	4186223.4	CIRCLE PRESCHOOL
562425.7	4194213.4	CITY OF ALBANY "FRIENDSHIP CLUB"
561371.4	4195413.4	CITY OF EL CERRITO COMM SVCS: FAIRMONT SCH-A CCC
560960.2	4196990.1	CITY OF EL CERRITO COMM SVCS:CASTRO SCHOOL-AGE CCC
562140.4	4194897.2	CITY OF EL CERRITO COMM SVCS:HARDING PARK SCH-A CC
565433.4	4189971.1	CLAREMONT CONVALESCENT HOSPITAL
566108.9	4189697.2	CLAREMONT DAY NURSERIES INC
565882.4	4188869.0	CLAREMONT DAY NURSERIES INC
562706.9	4194719.4	CLAREMONT DAY NURSERIES, INC
565888.6	4188770.4	CLAREMONT MIDDLE SCHOOL
562180.6	4195139.7	CLUBHOUSE ENRICHMENT CENTER (THE)
564735.8	4192658.0	CONGREGATION BETH EL
562112.1	4193651.6	CORNELL ELEMENTARY SCHOOL

UC Berkeley Baseline and LRDP Health Risk Assessment:
Sensitive Receptors Description and Location

UTM Coordinates (Meters)		Receptor Description
x	**y**	
564437.1	4194158.3	CRAGIVIONT PRIMARY SCHOOL
559497.6	4196504.9	CRESCENT PARK CHILDREN'S CENTER
567662.4	4184990.0	CROCKER HIGHLAND CHILD CARE
568170.0	4184957.9	CROCKER HIGHLANDS ELEMENTARY
563659.7	4193678.8	DANDELION NURSERY SCHOOL, INC
564872.5	4184634.0	DENTAL BEN PROVIDERS OF CA INC
564577.6	4185622.6	DOWLING CONVALESCENT HOSPITAL
566503.0	4187222.2	DUCK'S NEST PIEDMONT
562633.0	4189669.4	EAST BAY FRENCH AMERICAN SCHOOL/ECOLE BILINGUE EAST BAY FRENCH-AMERICAN SCH
564808.1	4186810.1	EAST BAY SURGERY CENTER, L.P.
564238.7	4190426.3	EAST CAMPUS, BERKELEY HIGH
561481.7	4196356.6	EL CERRITO SCHOOL-AGE CENTER
562126.3	4195410.7	EL CERRITO SENIOR HIGH SCHOOL
565961.7	4190495.6	EMERSON ELEMENTARY SCHOOL
563359.0	4187647.6	EMERY HIGH SCHOOL
563035.5	4187751.1	EMERYVILLE CHILD DEVELOPMENT CENTER
564298.1	4189214.8	EPHESIAN CHILDREN'S CENTER
561579.2	4194896.1	EYE CTR OF N CA SURGICENTER
561245.1	4195523.9	FAIRMONT ELEMENTARY SCHOOL
566199.7	4187855.9	FAR WEST SENIOR HIGH ALTERN ED
565070.2	4191077.6	FIRST PRESB. CHURCH OF BERKELEY/CORNERSTONE C.C.
564021.7	4185776.5	FOSTER MIDDLE SCHOOL
571646.4	4192662.7	FOUNTAINHEAD MONTESSORI SCHOOL ORINDA CAMPUS
563898.6	4185015.4	FOUR C'S CHILD DEVELOPMENT CENTER
565882.8	4185227.6	GAN AVRAHAM NURSERY SCHOOL
563302.6	4192786.5	GAY AUSTIN SCHOOL (THE)
565700.1	4191711.3	Girton Hall On campus Daycare Center
563691.0	4187865.4	GRACE CHILDREN'S ACADEMY
567374.9	4184957.8	GRAND LAKE MONTESSORI
565207.4	4189685.6	GRIFFIN NURSERY SCHOOL
564270.2	4195182.5	GRIZZLY PEAK EARLY CHILDHOOD CENTER
564226.4	4193190.4	GROWING LIGHT MONTESSORI SCHOOL
564581.7	4190093.3	GUARDIAN-ELMWOOD
563281.8	4190172.7	HARMONY PRESCHOOL
567535.9	4186554.1	HAVENS ELEMENTARY SCHOOL
567639.1	4188168.9	HILLCREST ELEMENTARY SCHOOL
564937.4	4185837.5	HILLHAVEN CONVALESCENT HOSPITAL
567736.1	4188041.2	HOLY NAMES HIGH SCHOOL
565595.2	4185634.3	HOME DAY NURSERY
563988.9	4185642.8	HOMEPLACE FAMILY CENTER – PRESCHOOL
563985.0	4186049.5	HONEY BEAR CHILD CARE CENTER
563893.1	4186275.3	HOOVER ELEMENTARY SCHOOL
563644.5	4193029.3	HOPKINS STREET CHILDCARE CENTER
562958.7	4192432.5	JEFFERSON PRIMARY SCHOOL
567693.0	4189595.6	KAISER ELEMENTARY SCHOOL
565399.3	4186394.0	KAISER FOUNDATION HOSPITAL

UC Berkeley Baseline and LRDP Health Risk Assessment:
Sensitive Receptors Description and Location

UTM Coordinates (Meters)		Receptor Description
x	y	
560217.9	4196662.7	KATHMANDU CHILD CARE CENTER
559059.6	4197593.7	KENNEDY HIGH SCHOOL
561603.7	4196643.3	KEYSTONE MONTESSORI SCHOOL
562011.4	4193709.7	KIDS CLUB YMCA – CORNELL
565233.7	4192604.9	KIDS CLUB YMCA – HILLSIDE
561883.2	4193619.7	KIDS' CLUB YMCA- ALBANY
565936.9	4190529.1	KIDS'CLUB YMCA - EMERSON SCHOOL
563659.3	4192666.1	KING JUNIOR HIGH SCHOOL
564635.9	4190499.8	KYAKAMEENA SKILLED NURSING FACILITY
563498.5	4184860.3	LAFAYETTE ELEMENTARY SCHOOL
566192.8	4184609.1	LAKE MERRITT CHILD CARE
566935.0	4185044.7	LAKESHORE CHILDREN'S CENTER
566278.9	4184925.9	LAKEVIEW ELEMENTARY SCHOOL
566638.9	4185059.2	LAKEVIEW PRESCHOOL
564966.7	4190044.6	LECONTE PRIMARY SCHOOL
567724.7	4186407.3	LINDA BEACH COOPERATIVE PLAY SCHOOL
565227.9	4186485.2	LITTLE FOLKS DAY CARE
564158.2	4186964.0	LONGFELLOW ELEMENTARY SCHOOL
563417.7	4190190.1	LONGFELLOW INTERMEDIATE
563289.9	4184722.3	LOWELL MIDDLE SCHOOL
562136.6	4194531.6	MACGREGOR HIGH (CONTINUATION)
561396.9	4197776.7	MADERA ELEMENTARY SCHOOL
563987.5	4189468.9	MALCOLM X INTERMEDIATE
562657.0	4193515.3	MARIN ELEMENTARY SCHOOL
564669.1	4185721.9	MCCLURE CONVALESCENT HOSPITAL
563647.9	4185670.9	MCCLYMONDS SENIOR HIGH SCHOOL
563862.9	4191261.3	MCGEE'S FARM PRESCHOOL
566494.3	4185707.2	MISS WEIR'S PLAYSCHOOL
565118.2	4189666.7	MODEL SCHOOL COMPREHENSIVE HUMANISTIC LEARNING CTR
569462.6	4187613.5	MONTCLAIR COMMUNITY PLAY CENTER
569368.3	4187228.9	MONTCLAIR ELEMENTARY SCHOOL
569766.9	4186388.4	MONTCLAIR VILLAGE CHILDREN'S CENTER
566015.7	4185572.5	MONTESSORI CASA DEI BAMBINI
566289.0	4188338.5	MONTESSORI CHILDREN'S HOUSE OF ROCKRIDGE
560678.7	4195800.4	MONTESSORI COMMUNITY SCHOOL
564591.6	4192414.8	MONTESSORI FAMILY PRE-SCHOOL
564945.6	4192065.4	MONTESSORI FAMILY SCHOOL
564412.5	4189368.0	MORNING GLORY PRESCHOOL
566443.5	4190046.0	MUIR (JOHN) ELEMENTARY SCHOOL
567269.6	4189942.7	MULBERRY SCHOOL (THE)
563485.8	4192904.7	MUSTARD SEED PRESCHOOL
565768.2	4188769.0	MY OWN MONTESSORI SCHOOL
563226.6	4196284.5	NEIGHBORHOOD PRE-SCHOOL
564556.9	4185014.6	NEW DAY PRESCHOOL & LEARNING CTR., METROPOLITAN
564068.1	4192320.9	NEW SCHOOL OF BERKELEY, THE
562268.3	4190918.2	NIA HOUSE LEARNING CENTER
562043.3	4195329.8	NOMURA PRESCHOOL-CLAYTON AVENUE SITE

UC Berkeley Baseline and LRDP Health Risk Assessment:
Sensitive Receptors Description and Location

UTM Coordinates (Meters)		Receptor Description
x	y	
560342.4	4195812.1	NOMURA SCHOOL (THE)
563216.5	4188753.6	O.U.S.D. - GOLDEN GATE CHILD DEVELOPMENT CENTER
563059.3	4188659.5	O.U.S.D. - GOLDEN GATE SCHOOL CDC
564123.0	4186292.6	O.U.S.D. - HARRIET TUBMAN CHILD DEVELOPMENT CTR.
564021.3	4187002.3	O.U.S.D. - LONGFELLOW CHILD DEVELOPMENT CENTER
563911.3	4184506.9	O.U.S.D. - MARTIN LUTHER KING, JR. CHILD DEV. CTR.
566266.0	4186777.9	O.U.S.D. - PIEDMONT AVE. CHILD DEVELOPMENT CTR.
561879.7	4184529.7	O.U.S.D. - PRESCOTT CHILD DEVELOPMENT CENTER
563961.8	4187953.9	O.U.S.D. - SANTA FE CHILD DEVELOPMENT CENTER
564992.1	4188961.9	O.U.S.D. - WASHINGTON CHILD DEVELOPMENT CENTER
562983.1	4184739.9	OAK CENTER CHRISTIAN ACADEMY
564697.2	4188181.3	OAKLAND HEAD START - FANNIE WALL
565849.9	4187477.9	OAKLAND TECHNICAL SENIOR HIGH
571335.5	4193099.6	ORINDA PRE-SCHOOL (THE)
571732.1	4192766.4	ORINDA REHABILITATION & CONVALESCENT HOSPITAL
564399.7	4193464.8	OXFORD PRIMARY SCHOOL
563878.7	4184766.0	P,C.D.C.I. - LITTLE LEARNERS CHILD DEVELOPMENT CTR
564848.9	4185382.7	P.C.D.C,I.-FIRST PRESBYTERIAN CHILD DEV. CTR.
563275.0	4188025.9	P.C.D.C.I.-SCHOOL-AGE CHILD DEVELOPMENT CENTER
565797.5	4187618.0	PACIFIC COAST MONTESSORI PROGRAM
562891.7	4187885.5	PACIFIC RIM INTERNATIONAL SCHOOL
561277.1	4197207.2	PETER PAN PARENT NURSERY
560721.4	4197112.5	PICCOLI
567642.6	4186311.9	PIEDMONT AVENUE ELEMENTARY
		PIEDMONT CONTINUATION HIGH
565944.6	4186636.6	PIEDMONT GARDENS HEALTH FACILITY
567577.1	4186240.6	PIEDMONT MIDDLE SCHOOL
567469.8	4185843.3	PIEDMONT SCHOOLMATES – WILDWOOD
566428.3	4186331.8	PIEDMONT SCHOOLMATES –BEACH
		PIEDMONT SCHOOLMATES HAVENS
561654.2	4196569.6	PORTOLA JUNIOR HIGH SCHOOL
566472.2	4184903.8	PRANA INSTITUTE
561947.1	4184637.6	PRESCOTT ELEMENTARY SCHOOL
564073.7	4189074.8	PROGRESSIVE CHRISTIAN DAY CARE CENTER
565681.2	4186926.5	PUMPKIN PATCH PLAYSCHOOL
564746.8	4184977.9	QUALMED PLANS FOR HEALTH
566495.1	4188479.6	RAINBOW SCHOOL, THE
563069.8	4192391.5	RICHARDS FAMILY PRESCHOOL & DEVELOPMENT CENTER
562487.5	4192171.4	ROSE STREET COMMUNITY CHILD CARE CENTER
563658.5	4188958.2	ROSEMARIE'S MOTIVATION PRESCHOOL NURSERY, #3
564468.4	4187103.9	SACRED HEART SCHOOL
564068.9	4193116.0	SCHOOL OF THE MADELEINE
561265.8	4194963.0	SHIELDS NURSING CENTER
563130.5	4196735.5	SKYTOWN PARENT COOPERATIVE PRESCHOOL
570616.4	4195655.4	SLEEPY HOLLOW ELEMENTARY
569253.2	4187380.6	SMILES DAY SCHOOL
565547.6	4186287.4	SNOW WHITE PRESCHOOL

UC Berkeley Baseline and LRDP Health Risk Assessment:
Sensitive Receptors Description and Location

UTM Coordinates (Meters)		Receptor Description
x	y	
563635.6	4191542.6	SNUGGERY, THE
565430.6	4189317.7	ST AUGUSTINE SCHOOL
563172.8	4188930.4	ST COLUMBA SCHOOL
562512.4	4195099.5	ST JEROME SCHOOL
563537.0	4191458.4	ST JOSEPH SCHOOL
563086.1	4192762.3	ST MARY S COLLEGE HIGH SCHOOL
565230.5	4184942.5	ST PAUL S EPISCOPAL SCHOOL
567764.7	4187730.2	ST THERESA SCHOOL
565787.9	4190436.5	ST. JOHN'S INFANT CARE PROGRAM
565998.8	4186907.1	ST. LEO'S PRE-KINDERGARTEN
559584.3	4196955.8	STEGE ELEMENTARY SCHOOL
564179.8	4194995.9	STEP ONE SCHOOL
563043.1	4185033.2	STEPPING STONES GROWTH CENTER
564773.1	4185692.2	STREET ACADEMY SENIOR HIGH (AL
563727.9	4186241.3	SUPPORTING FUTURE GROWTH #1
563926.1	4185963.1	SUPPORTING FUTURE GROWTH #2
564816.9	4185541.9	TEMPLE SINAI PRESCHOOL
564231.2	4188816.5	THERAPEUTIC NURSERY SCHOOL
569486.0	4187742.7	THORNHILL ELEMENTARY SCHOOL
563367.2	4194008.9	THOUSAND OAKS BAPTIST CHURCH PRE-SCHOOL THOUSAND OAKS PRIMARY SCHOOL
569338.5	4187472.3	TODDLER FAMILY
565328.3	4191032.4	U.C.B. - ANNA HEAD I U.C.B. - SMYTH III AFTER SCHOOL PROGRAM
566093.4	4191024.8	U.C.B.-CLARK KERR CAMPUS CHILDREN'S CENTER
564786.8	4191021.3	UCB HAROLD E. JONES STUDY CNT. INST. OF HUMAN DEV.
569802.0	4194400.8	VILLAGE PRESCHOOL
561976.5	4187894.7	VIST NRS ASSN AND HSP OF N CA
564807.7	4188943.6	WASHINGTON ELEMENTARY SCHOOL
565661.1	4186720.2	WAYNE ROUNSEVILLE MEMORIAL CONVALESCENT HOSPITAL
565154.8	4185177.9	WESTLAKE JUNIOR HIGH SCHOOL
565442.4	4190333.6	WILLARD JUNIOR HIGH SCHOOL
569665.3	4187831.8	WOODS EDGE SCHOOL
564859.8	4191226.0	WOOLLY MAMMOTH CHILD CARE
560688.5	4198324.8	YELLOW BRICK ROAD SCHOOL
565294.0	4189135.3	YMCA - Y KIDS - EMERALD CITY, PERALTA SITE
566208.9	4186965.4	YMCA OF THE EAST BAY - Y-KIDS PIEDMONT SITE
564839.9	4191259.7	Arrowsmith Academy-College Preparatory School
563881.5	4193775.5	Baby Academy
565678.4	4189832.8	Benvenue Children's House
563564.1	4192019.9	Brown House Preschool
564204.5	4190240.4	BUSD-Kings Childrens Center
564031.4	4191217.3	BUSD-Vera Casey Parent-Child E
564525.1	4192613.7	Cedar Spruce Preschool
564294.5	4193345.3	Children's Community Center
565009.0	4192130.1	Church Div School
564926.7	4192158.7	Community School of the East Bay

UC Berkeley Baseline and LRDP Health Risk Assessment:
Sensitive Receptors Description and Location

UTM Coordinates (Meters)		Receptor Description
x	y	
564079.9	4192117.5	East Bay Science and Arts Middle
564556.5	4190078.0	Elmwood Nursing Rehabilitation Hospital
565698.5	4190594.9	Elmwood School Kindergarten
563528.3	4191154.6	Gan Shalom Preschool
563632.5	4192748.8	Garfield Junior High School
564598.3	4189986.6	I Can Before & After School
566063.3	4190799.7	K-2 UC Berkeley Afterschool Program Bldg 15
564933.2	4191275.2	Maybeck High School
564729.7	4192662.2	Midrasha Berkeley
565729.0	4190469.2	Monteverde School
563822.1	4193189.9	New House Day School
563985.8	4189792.8	North Berkeley Senior Center
566729.0	4190469.2	Our School
565085.2	4190282.7	Sheffield Preschool Program
563849.5	4193192.5	Sprouts Pre-School
565584.9	4190497.7	The Academy Elem. School
564040.9	4192285.0	The New School of Berkeley
564040.9	4192285.0	The New School of Berkeley-School
564294.5	4192948.9	Toddler Family
563972.9	4190801.1	Walden Center School
563882.6	4191099.5	Berkwood Hedge Elementary School
566166.6	4190836.2	California School for Blind and Deaf
564479.1	4194120.8	Cragmont School
565508.4	4193697.4	Hillside Primary School
565144.6	4192620.5	Hillside School
565130.2	4190916.1	McKinley School
564249.9	4192208.0	Whiffler School
563634.2	4192669.1	Martin Luther King Jr. Middle

FACTORS TO ADJUST 70-YEAR CANCER RISK VALUES

To Employee Exposures:

Assume the following from the California Air Pollution Control Officers Association (CAPCOA) *Air Toxics "Hot Spots" Program Revised 1992 Risk Assessment Guidelines* (December 1993). This leads to a slightly more conservative factor than the more recent Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Risk Assessment Guidelines* (Part IV, 2000):

Employee works 8 hours per day, 240 days per year, for 46 years.

$$\frac{8\ hr/day}{24\ hr/day} \quad x \quad \frac{240\ days/year}{365\ days/year} \quad x \quad \frac{46\ years}{70\ years} \quad = \quad \textbf{0.144}$$

To Child Exposures at Daycare/Schools:

Assume child at daycare/school location for10 hours per day, 240 days per year for 12 years. Assume child body weight is 15 kg (33 pounds) versus adult body weight of 70 kg (154 pounds). Assume child breathing rate is 10 cubic meters per day versus an adult rate of 20 cubic meters per day.

$$\frac{10m^3/day}{20m^3/day} \quad x \quad \frac{70\ kg}{15\ kg} \quad x \quad \frac{(10 \times 240)\ hr/year}{8760\ hr/year} \quad x \quad \frac{12\ years}{70\ years} \quad = \quad \textbf{0.110}$$

Toxicity Factors Used in the Existing Campus and LRDP Health Risk Assessments[1]

CHEMICAL	Cancer URF (1/[ug/m³])	Chronic Inhalation REL (ug/m³)	Acute Inhalation REL (ug/m³)
Laboratory Chemicals			
Acetonitrile	------	25.5 [3]	6700 [5]
Benzene	2.9E-05	60	1300
Bromine and compounds	------	1.7 [5]	66 [5]
t-Butyl alcohol	------	714 [5]	30000 [5]
Carbon tetrachloride	4.2E-05	40	1900
Chloroform	5.3E-06	300	150
Dimethylformamide	------	80	3000 [5]
1,4-Dioxane	7.7E-06	3000	3000
Epichlorohydrin	2.3E-05	3	1300
Ethanol	------	4480 [5]	188000 [5]
Ethyl acetate	------	1350 [3]	140000 [5]
Ethyl ether	------	300 [3]	120000 [5]
Formaldehyde	6.0E-06	3	94
Glutaraldehyde	------	0.08	20 [5]
n-Hexane	------	7000	17600 [5]
Hydrazine	4.9E-03	0.2	1.3 [5]
Hydrochloric acid	------	9	2100
Hydrofluoric acid	------	5.9 [5]	240
Hydrogen-3 (Tritium)	4.0E-02 [2]	------	------
Iodine-125 (I-125)	2.7E+00 [2]	------	------
Isopropanol	------	7000	3200
Methyl alcohol	------	4000	28000
Methyl bromide	------	5	3900
Methylene chloride	1.0E-06	400	14000
Phosgene	------	1 [5]	4
Pyridine	------	1.5 [3]	1500 [5]
Tetrachloroethylene	5.9E-06	35	20000
Tetrahydrofuran	------	129 [3]	59000 [5]
Toluene	------	300	37000
1,1,1-Trichloroethane	------	1000	68000
Trichloroethylene	2.0E-06	600	26900 [5]
Triethylamine	------	200	2800
Xylenes	------	700	22000

Toxicity Factors Used in the Existing Campus and LRDP Health Risk Assessments[1]

CHEMICAL	Cancer URF (1/[ug/m³])	Chronic Inhalation REL (ug/m³)	Acute Inhalation REL (ug/m³)
Additional Combustion Chemicals			
Acetaldehyde	2.7E-06	9	**4500** [5]
Acrolein	------	0.06	0.19
1,3-Butadiene	1.7E-04	20	**221** [5]
p-Dichlorobenzene	1.1E-05	800	6000
Diesel particulate matter	3.0E-04	5	------
Ethylbenzene	------	2000	**43400** [5]
Naphthalene	------	9	**5000** [5]
PAHs (BaP equivalents)	1.1E-03	**0.48** [5,6]	**20** [5,6]
PAHs (pyrene equivalents)	------	**45** [5,6]	**5000** [5,6]
Propylene oxide	3.7E-06	30	3100
Arsenic	3.3E-03	0.03	0.19
Beryllium	2.4E-03	0.007	**0.2** [5]
Cadmium	4.2E-03	0.02	**0.5** [5]
Chromium	**1.2E-02** [1]	**1.02** [7]	**0.1** [7]
Cobalt	------	**0.05** [5]	**2** [5]
Copper	------	**2.4** [4]	100
Lead	1.2E-05	**1.5** [8]	**5** [5]
Manganese	------	0.2	**20** [5]
Mercury	------	0.09	1.8
Nickel	2.6E-04	0.05	6
Selenium	------	20	**20** [5]
Vanadium	------	**0.12** [5]	30
Zinc	------	**35** [4]	**500** [5]

Notes:

[1] Unless otherwise noted, basis of cancer URFs is OEHHA (2002), chronic RELs is OEHHA (2003), and acute RELs is OEHHA (1999), as summarized at http://www.arb.ca.gov/toxics/healthval/contable.pdf

[2] Taken from 2003 UC Davis LRDP EIR.

[3] Developed from inhalation reference dose from U.S. EPA PRG (EPA 2002) and "child only" exposure factors (breathing rate = 10 m³/day, body weight = 15 kg).

[4] Taken from 1993 CAPCOA Air Toxics "Hot Spots" Program Revised 1992 Risk Assessment Gudielines.

[5] Acute: Lower of OSHA PEL or ACGIH TLV divided by 10; Chronic: Lower of OSHA PEL or ACGIH TLV divided by 420. Conversions from ppmv to ug/m³ done at 25°C.

[6] For benzo(a)pyrene equivalents, used OSHA PEL for coal tar pitch volatiles for chronic and acute. For pyrene equivalents, used EPA PRG (EPA 2002) for chronic, and OSHA PEL for naphthalene.

[7] **Chromium:** Acute REL based on ACGIH TLV of 500 ug/m³ for total Cr, divided by 10 and multiplied by 6/7 to account for Cr+6 to Cr+3 ratio per EPA PRG (2002) Guidance. Chronic REL = acute REL times 10 divided by 420.

[8] **Lead:** National and California Ambient Air Quality Standard used for chronic REL.

UC Berkeley Emergency Generator Emission Rates

Source Number (name-loc.)	Engine Make	Engine Model	Rated bhp	Part. emissions factors g/hp/hr D-2 Test Cycle	Load Factor	Annual Testing Hours	Annualized Emission Rate (g/s)	Cancer Risk Rate (for modeling file)	Chronic Exposure (for modeling file)
Existing Engines									
62 (Central Dining)	Caterpillar	3456	764	0.1	25%	26	1.575E-05	4.724E-03	3.149E-06
63 (Barker)	Caterpillar	3456	764	0.05	25%	26	7.874E-06	2.362E-03	1.575E-06
64 (Birge stationary)	Caterpillar	1004-40TW	117	0.1	25%	26	2.412E-06	7.235E-04	4.823E-07
105 (Haas Pav)	Cummins	QST30-G2	1200	1	25%	26	2.473E-04	7.420E-02	4.947E-05
106 (VLSB)	Detroit Diesel	5147541	1006	1	25%	26	2.074E-04	6.221E-02	4.147E-05
107 (Koshland)	Cummins	VTA28G2/37116828	805	1	25%	26	1.659E-04	4.978E-02	3.318E-05
108 (LSBA)	Cummins	YTA28G2	805	1	25%	26	1.659E-04	4.978E-02	3.318E-05
109 (Tan)	Detroit Diesel	500R0ZD71	671	0.4	25%	26	5.532E-05	1.660E-02	1.106E-05
110 (NWAF- S)	Allis Chalmers	3119-0955	335	0.4	25%	26	2.762E-05	8.286E-03	5.524E-06
111 (Doe-Moffitt Stacks)	Detroit Diesel	CID 300	385	1	25%	26	7.935E-05	2.381E-02	1.587E-05
112 (Res 1-1W)	Caterpillar V-8	3208	335	1	25%	26	6.905E-05	2.071E-02	1.381E-05
113 (Res 1-2E)	Caterpillar V-8	3208	335	1	25%	26	6.905E-05	2.071E-02	1.381E-05
114 (Res 2-1W)	Caterpillar V-8	3208	335	1	25%	26	6.905E-05	2.071E-02	1.381E-05
115 (Res 2-2E)	Caterpillar V-8	3208	335	1	25%	26	6.905E-05	2.071E-02	1.381E-05
116 (Tang)1	Detroit Diesel	80637405	335	1	25%	26	6.905E-05	2.071E-02	1.381E-05
117 (Minor)	Detroit Diesel	80637405	335	1	25%	26	6.905E-05	2.071E-02	1.381E-05
118 (NWAF-N)	Volvo Penta	TAD1030GE	400	0.4	25%	26	3.298E-05	9.893E-03	6.596E-06
119 (Warren)	Allis Chambers	DES 200	235	1	25%	26	4.844E-05	1.453E-02	9.687E-06
120 (Sproul)	John Deere	C5PG 6005-A	169	1	25%	26	3.483E-05	1.045E-02	6.967E-06
121 (I- House)	Allis-Chalmers	12ST6	168	1	25%	26	3.463E-05	1.039E-02	6.925E-06
123 (Stanley)	Cummins	GCT8.3-G 207HP	207	1	25%	26	4.267E-05	1.280E-02	8.533E-06
124 (ABRS)2	Cummins	N-55-G	168	1	25%	26	3.463E-05	1.039E-02	6.925E-06
125 (EHS/HMF)	Caterpillar	27D6	166	0.4	25%	26	1.369E-05	4.106E-03	2.737E-06
126 (GBCR)	Cummins	6BT5.9-GC	134	0.4	25%	26	1.105E-05	3.314E-03	2.210E-06
128 (Donner)	John Deere	4030TF001	67	1	25%	26	1.381E-05	4.143E-03	2.762E-06
129 (Birge port)	Cummins	KW50	67	1	25%	26	1.381E-05	4.143E-03	2.762E-06
130 (Hildebrand)	Cummins	6CTA8.3-G2	277	0.15	25%	26	8.564E-06	2.569E-03	1.713E-06
131 (Haas Rec. Sports CEV)	Caterpillar	1004-40TW	117	0.1	25%	26	2.412E-06	7.235E-04	4.823E-07
132 (Mulford CEV)	Caterpillar	1004-40TW	117	0.1	25%	26	2.412E-06	7.235E-04	4.823E-07
133 (HMMB)	Cummins	QSX15-G9	755	0.4	25%	26	6.225E-05	1.867E-02	1.245E-05
New LRDP Engines									
Stanley Hall (NEQSS)	N/A	N/A	750	0.15	25%	26	2.319E-05	6.956E-03	4.638E-06
Davis Hall North (NEQSS)	N/A	N/A	750	0.15	25%	26	2.319E-05	6.956E-03	4.638E-06
McCone	N/A	N/A	300	0.15	25%	26	9.275E-06	2.783E-03	1.855E-06
SRB[1]	N/A	N/A	300	0.15	25%	26	9.275E-06	2.783E-03	1.855E-06
New Lab	N/A	N/A	750	0.15	25%	26	2.319E-05	6.956E-03	4.638E-06
Music Library	N/A	N/A	300	0.15	25%	26	9.275E-06	2.783E-03	1.855E-06
Unit 1 Infill Housing	N/A	N/A	300	0.15	25%	26	9.275E-06	2.783E-03	1.855E-06
Unit 2 Infill Housing	N/A	N/A	300	0.15	25%	26	9.275E-06	2.783E-03	1.855E-06
Unit 3	N/A	N/A	300	0.15	25%	26	9.275E-06	2.783E-03	1.855E-06
116 Tang Center[1]	N/A	N/A	635	0.15	25%	26	1.963E-05	5.890E-03	3.926E-06

[1] The HP value represents 300 HP of additional power for the LRDP. The existing Tang Center generator operates at 335 HP.

SOURCE PARAMETERS (EXISTING)

Building and Modeling Source ID	UTM Coordinates (m)	(m)	Base Elevation (m)	Stack Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Inner Stack Diameter (m)
Warren Hall							
WHSTL1_8	564704.44	4191782.75	67	31.70	293.15	7.12	0.19
WHSTK10	564724.44	4191826	67	8.60	293.15	7.12	0.34
NW Animal Facility							
NWAF9	564718.81	4191791.25	67	29.57	293.15	16.48	0.74
Morgan Hall							
MHSTK1	564794.44	4191795.75	75	7.61	293.15	17.25	0.34
MHSTK2	564798.56	4191843	75	10.89	293.15	17.25	0.29
MHSTK3	564794.06	4191843	75	10.89	293.15	17.25	0.48
MHSTK4	564800.94	4191787.25	75	15.61	293.15	17.25	0.33
MHSTK6	564801.31	4191808.25	75	10.94	293.15	17.25	0.34
Koshland Hall							
KHSTK1	564761.13	4191879.75	73	18.45	293.15	1.28	2.76
KHSTK2	564759.38	4191891.75	73	18.45	293.15	1.28	2.76
KHSTK3	564732.38	4191877.5	73	18.45	293.15	1.28	2.76
KHSTK4	564731.38	4191889	73	18.45	293.15	1.28	2.76
Barker Hall							
BHSTK1	564678.94	4191889	67	27.85	293.15	2.78	1.26
BHSTK2	564675	4191896.75	67	29.68	293.15	2.78	1.26
BHSTK3	564704.5	4191898	67	29.68	293.15	2.78	1.26
BHSTK4	564707.38	4191887.75	67	33.34	293.15	2.78	0.37
BHSTK5	564691.63	4191888	67	33.34	293.15	2.78	0.37
Valley Life Sciences Building							
VLSBSTK1	564933.56	4191633.25	64	27.04	293.15	3.97	1.22
VLSBSTK2	564954	4191566.5	64	27.04	293.15	3.97	1.22
VLSBSTK3	565051.31	4191594.75	64	27.04	293.15	3.97	1.22
VLSBSTK4	565030.63	4191662.25	64	27.04	293.15	3.97	1.22
Life Sciences Addition							
LSASTK1	564892.19	4191637.25	64	28.31	293.15	5.18	1.22
LSASTK2	564875.88	4191632.75	64	28.31	293.15	5.18	1.22
LSASTK3	564907.56	4191580.5	64	28.31	293.15	5.18	1.22
LSASTK4	564897.06	4191578	64	28.31	293.15	5.18	1.22
LSASTK5	564908.63	4191576.25	64	28.31	293.15	5.18	1.22
LSASTK6	564899.06	4191573.5	64	28.31	293.15	5.18	1.22
LSASTK7	564900.75	4191572.25	64	28.31	293.15	5.18	0.30
Lewis Hall							
LEWHSTK1	565605.75	4191772	107	12.80	293.15	3.11	0.36
LEWHSTK2	565591.5	4191786	107	12.80	293.15	3.11	0.36
LEWHSTK3	565585.88	4191792.25	107	12.80	293.15	3.11	0.36
LEWHSTK4	565583.13	4191800	107	12.80	293.15	3.11	0.36
LEWHSTK5	565598.06	4191787.75	107	12.80	293.15	3.11	0.36
LEWHSTK6	565619.38	4191775.75	107	12.80	293.15	3.11	0.36
LEWHSTK7	565608.75	4191787.25	107	12.80	293.15	3.11	0.36
LEWHSTK8	565597.63	4191800.5	107	12.80	293.15	3.11	0.30
LEWHSTK9	565593.31	4191808.25	107	12.80	293.15	3.11	0.36
Latimer Hall							
LATHSTK1	565555.06	4191799.25	105	42.37	293.15	6.28	0.34
LATHSTK2	565561.06	4191812	105	36.88	293.15	6.28	0.70
LATHSTK3	565531.56	4191800.25	105	36.88	293.15	6.28	0.48
LATHSTK4	565515.06	4191799.5	105	37.19	293.15	6.28	0.96
LATHSTK5	565539.69	4191794.25	105	42.37	293.15	6.28	0.70
LATHSTK6	565527.31	4191776	105	38.40	293.15	6.28	0.74
LATHSTK7	565544.94	4191781.5	105	38.40	293.15	6.28	0.31
LATHSTK8	565562.31	4191787	105	38.40	293.15	6.28	0.70
Tan Hall							
TANHSTKA	565492.06	4191793	101	39.32	293.15	2.94	1.69
TANHSTKB	565496.75	4191794	101	39.32	293.15	2.94	1.69
TANHSTKC	565494.13	4191787.25	101	39.32	293.15	2.94	1.69
TANHSTKD	565499.06	4191788.25	101	39.32	293.15	2.94	1.69

SOURCE PARAMETERS (EXISTING)

Building and Modeling Source ID	UTM Coordinates (m)	(m)	Base Elevation (m)	Stack Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Inner Stack Diameter (m)
Hildebrand/Giaque/Minor/Minor Addition Hall							
HHSTKA	565540.75	4191749.5	104	20.12	293.15	4.15	1.52
HHSTKB	565565.63	4191756.75	104	20.12	293.15	4.15	1.52
HHSTKC	565576.81	4191717.75	104	20.12	293.15	4.15	1.52
HHSTKD	565553.25	4191710.5	104	20.12	293.15	4.15	1.52
HHSTKE	565543.44	4191746.5	104	20.12	293.15	4.15	0.81
Stanley Hall1[1]							
STHSTK1	565530.31	4191891.75	113	13.87	293.15	2.17	0.27
STHSTK2	565522	4191918.25	113	13.87	293.15	2.17	0.34
STHSTK3	565537.88	4191871	113	17.56	293.15	2.17	0.34
STHSTK4	565529.5	4191871.75	113	13.87	293.15	2.17	0.34
STHSTK5	565530.94	4191870	113	14.02	293.15	2.17	0.34
STHSTK6	565530.13	4191869.5	113	14.02	293.15	2.17	0.27
STHSTK7	565532.56	4191866.5	113	14.02	293.15	2.17	0.39
STHSTK8	565538.25	4191864	113	14.02	293.15	2.17	0.27
STHSTK9	565525.88	4191880.5	113	14.02	293.15	2.17	0.53
STHSTK11	565519	4191907.5	113	13.87	293.15	2.17	0.34
Gilman/Birge/LeConte Hall							
GHSTK1	565507.13	4191756	104	16.06	293.15	5.92	0.30
GHSTK2	565510.56	4191744.75	104	16.06	293.15	5.92	0.25
GHSTK3	565512.44	4191739	104	16.37	293.15	5.92	0.30
GHSTK4	565514.69	4191737.75	104	15.91	293.15	5.92	0.31
GHSTK5	565514.88	4191732.25	104	16.06	293.15	5.92	0.30
GHSTK6	565500.25	4191755.25	104	16.12	293.15	5.92	0.30
GHSTK7	565501.13	4191753	104	16.37	293.15	5.92	0.84
GHSTK8	565503.69	4191744.25	104	16.00	293.15	5.92	0.30
GHSTK9	565505.25	4191740.25	104	16.37	293.15	5.92	0.26
GHSTK10	565506.94	4191735.25	104	16.06	293.15	5.92	0.30
GHSTK11	565509.69	4191728.25	104	16.22	293.15	5.92	0.30
GHSTK12	565509	4191725.5	104	16.06	293.15	5.92	0.30
GHSTK13	565516.94	4191725.75	104	15.91	293.15	5.92	0.40
Cory Hall							
CHSTK1	565393.94	4192008.75	110	26.85	293.15	2.00	1.00
Davis /Etcheverry Hall[1]							
DHSTK1	565329.44	4191982	107	16.36	293.15	2.00	1.00
Hess/McCone/O'Brien Hall							
HESSTK1	565234.56	4191926.25	98	15.39	293.15	2.00	1.00
Hilgard Hall							
HILSTK1	564874.56	4191815	80	14.96	293.15	2.00	1.00
Mulford Hall							
MULSTK1	564779.69	4191737.75	74	17.24	293.15	2.00	1.00
Wellman Hall							
WELSTC1	564933.69	4191795.25	82	5.89	293.15	2.00	1.00
Printing Operations							
PRINTA	564584.69	4191553.25	60	8.91	293.15	2.70	0.84
PRINTB	564614.44	4191520.75	60	8.91	293.15	2.70	0.84
PRINTC	564643.13	4191525.5	60	8.91	293.15	2.70	0.60
Cogeneration Plant							
COGEN (Turbine)	564876	4191492	72	12.77	430.37	10.45	2.28
BOILER#2	564863.56	4191499.5	72	8.80	522.82	7.97	1.52
BOILER#3	564881.94	4191505.75	72	8.80	554.11	10.53	1.52
BOILER#4	564885.81	4191495.75	72	8.80	566.65	12.63	1.52
Hazardous Materials Facility							
POURING	564847.81	4191467	70	14.94	293.15	4.62	0.56

SOURCE PARAMETERS (EXISTING)

Building and Modeling Source ID	UTM Coordinates (m)	(m)	Base Elevation (m)	Stack Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Inner Stack Diameter (m)
Diesel Generators							
62 (Central Dining)	565567.63	4191086.5	85.1	4.6	800	146.0	0.13
63 (Barker)	564668.25	4191897.5	70.2	4.6	800	152.0	0.13
64 (Birge stationary)	565452.94	4191687	98.2	3.0	817	58.5	0.08
105 (Haas Pav)	564939.13	4191457.75	71.1	4.6	811	70.1	0.23
106 (VLSB)	564991.56	4191614.5	73.6	30.5	811	70.1	0.20
107 (Koshland)	564767.38	4191906.75	76.2	0.0	811	70.1	0.18
108 (LSBA)	564930.63	4191564.25	68.8	7.6	811	70.1	0.18
109 (Tan)	565615.81	4191801.25	111.7	3.0	811	70.1	0.15
110 (NWAF- S)	564655.88	4191874.5	68.4	4.6	811	70.1	0.10
111 (Doe-Moffitt Stacks)	565091.13	4191757.75	78.9	3.0	811	70.1	0.11
112 (Res 1-1W)	565542.81	4191208.25	85.7	3.0	811	70.1	0.10
113 (Res 1-2E)	565673.63	4191194.75	92	3.0	811	70.1	0.10
114 (Res 2-1W)	565601.44	4191014.25	86	3.0	811	70.1	0.10
115 (Res 2-2E)	565702.94	4190991.75	91.4	3.0	811	70.1	0.10
117 (Minor)	565575.94	4191609	99.3	3.0	811	70.1	0.10
118 (NWAF-N)	564654.81	4191890.5	68.6	4.6	811	70.1	0.13
119 (Warren)	564728.81	4191771	70.5	4.6	811	70.1	0.08
120 (Sproul)	565318	4191422.5	86.1	3.0	811	70.1	0.08
121 (I- House)	565926.25	4191443	118.9	3.0	811	70.1	0.08
123 (Stanley)	565259.44	4191652.75	88.3	3.0	811	70.1	0.08
125 (EHS/HMF)	564811.19	4191460.75	67.7	3.0	811	70.1	0.08
126 (GBCR)	565137.94	4191441.5	77.6	0.0	811	70.1	0.08
128 (Donner)	565469.25	4191955.25	109.8	3.0	811	70.1	0.05
129 (Birge port)	565383.13	4191740.25	97	2.4	811	70.1	0.05
130 (Hildebrand)	565533.31	4191713.5	98.9	2.4	815	134.5	0.08
131 (Haas Rec. Sports CEV)	564970.31	4191484.25	71.3	1.8	817	58.5	0.08
132 (Mulford CEV)	564800.31	4191781.75	74.3	1.8	817	58.5	0.08
133 (HMMB)	565380	4191939.25	104.3	3.0	769	135.1	0.13

Volume Source Parameters					
Building and Modeling Source ID	UTM Coordinates (m)	(m)	Base Elevation (m)	Stack Height (m)	Initial Vertical Dimension (m)
Morgan Hall					
MHSTK5	564821.19	4191842.75	75	6.95	2.42
Stanley Hall					
STHSTK10	565522.63	4191880.75	113	14.02	5.39
s Painting Acitvities					
PAINT1	564917.13	4191432.5	72	4.57	4.25
PAINT2	565322.69	4191834.75	96	4.57	4.25
PAINT3	565541.5	4191525.75	97	4.57	4.25
PAINT4	564865.69	4191751	77	4.57	4.25

[1] These parameters were used for the existing conditions modeling for Stanley and Davis Hall. New design parameters were used for LRDP modeling.

SOURCE PARAMETERS (LRDP)

Building and Modeling Source ID	UTM Coordinates (m)	(m)	Base Elevation (m)	Stack Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Inner Stack Diameter (m)
Laboratories							
NEQSS Projects (currently under construction)							
NEW STANLEY 1	565533.9	4191903.9	112.9	41.9012	293.15	17.249	0.762
NEW STANLEY 2	565535.5	4191899.1	112.9	41.9012	293.15	17.249	0.762
NEW STANLEY 3	565537.2	4191894.4	112.9	41.9012	293.15	17.249	0.762
NEW STANLEY 4	565538.8	4191889.7	112.9	41.9012	293.15	17.249	0.6096
NEW STANLEY 5	565545.4	4191891.5	112.9	41.9012	293.15	17.249	0.762
NEW STANLEY 6	565543.61	4191896.3	112.9	41.9012	293.15	17.249	0.762
NEW STANLEY 7	565542	4191901.1	112.9	41.9012	293.15	17.249	0.762
NEW STANLEY 8	565540.3	4191905.8	112.9	41.9012	293.15	17.249	0.762
NEW DAVIS 1	565340.58	4191981.1	108.9	33.7895	293.15	12.656	1.6255
NEW DAVIS 2	565338.69	4191980.6	108.9	33.7895	293.15	12.656	1.6255
NEW DAVIS 3	565329.47	4191986.6	109.2	33.7895	293.15	13.617	0.8636
NEW DAVIS 4	565328.36	4191986.3	109.2	33.7895	293.15	13.617	0.8636
Assumed LRDP Laboratory Emission Locations							
Zone A	564808.75	4191708.3	70.5	6.096	293.15	3.97	1
Zone B	565047	4191787.5	77.9	6.096	293.15	3.97	1
Zone C	565301.88	4191832	90.7	6.096	293.15	3.97	1
Zone D	565490.25	4191861.5	106.7	6.096	293.15	3.97	1
Zone E	565089.5	4191460.8	73.6	6.096	293.15	3.97	1
Zone F	565368.75	4191521.8	86.7	6.096	293.15	3.97	1
Zone G	565641.69	4191569.5	102.4	6.096	293.15	3.97	1
Emergency Generators							
Stanley Hall (NEQSS)	565539.13	4191905.3	114.2	2.1336	769.26	76.14	0.1778
Davis Hall North (NEQSS)	565364.13	4191990.5	109.8	2.1336	769.26	76.14	0.1778
McCone	565176.38	4191928.8	93.8	2.1336	810.93	59.08	0.127
SRB1	564595.25	4191928.3	67.3	2.1336	810.93	59.08	0.127
New Lab	564559.25	4191851	64.9	2.1336	769.26	76.14	0.1778
Music Library	565510.94	4191488.8	94.8	2.1336	810.93	59.08	0.127
Unit 1 Infill Housing	565595.56	4191185	87.9	2.1336	810.93	59.08	0.127
Unit 2 Infill Housing	565647	4191033.3	88.8	2.1336	810.93	59.08	0.127
Unit 3	565112.13	4191138.8	72.6	2.1336	810.93	59.08	0.127
116 Tang Center1	564775.81	4191177.5	63.2	2.1336	810.93	87.63	0.1524

ANNUAL LABORATORY EMISSIONS BY BUILDING UNDER EXISTING CONDITIONS

Chemical	Barker Hall	Cory Hall	Davis/ Etcheverry Hall (Existing)[1]	Gillman/ Birge/ LeConte Hall	Hesse/ McCone/ O'Brien	Hildebrand/ Giauque/ Minor/ Minor Add Hall	Hilgard Hall	Koshland Hall	Latimer Hall	Lewis Hall	LSA	Morgan Hall	Mulford Hall	Northwest Animal Facilty	Stanley Hall (Existing)[1]	Tan Hall	Valley Life Sciences Building	Warren Hall	Wellman Hall
	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)
Tier I																			
Acetonitrile	1.83E-04	0.00E+00	4.82E-05	6.39E-05	0.00E+00	2.98E-04	3.18E-04	2.45E-04	5.12E-04	1.35E-04	1.71E-04	5.20E-05	0.00E+00	0.00E+00	4.37E-04	2.21E-04	1.05E-05	4.95E-05	0.00E+00
Benzene	1.21E-06	0.00E+00	6.86E-07	1.60E-05	6.18E-06	7.13E-05	1.06E-05	1.48E-06	1.23E-04	3.22E-05	6.02E-06	5.81E-07	0.00E+00	0.00E+00	2.22E-06	5.29E-05	7.39E-07	2.64E-07	0.00E+00
Carbon tetrachloride	1.14E-05	0.00E+00		3.94E-05	1.15E-05	5.86E-06	6.01E-06	8.20E-05	1.01E-05	2.65E-06	2.94E-05	4.49E-06	0.00E+00	0.00E+00	2.25E-06	4.35E-06	3.45E-07	0.00E+00	0.00E+00
Chloroform	2.61E-04	1.17E-05	6.21E-07	2.59E-04	2.31E-06	8.62E-04	1.99E-05	7.99E-04	1.48E-03	3.88E-04	5.92E-04	5.92E-05	1.78E-07	8.88E-06	5.34E-05	6.37E-04	1.90E-05	4.62E-06	2.40E-06
Dioxane, 1,4-	1.17E-06	0.00E+00	0.00E+00	1.76E-05	1.17E-06	8.34E-05	8.03E-07	2.72E-06	1.41E-04	3.72E-05	1.79E-06	3.16E-05	0.00E+00	0.00E+00	5.07E-06	6.10E-05	0.00E+00	0.00E+00	6.18E-08
Formaldehyde	5.05E-05	2.88E-07	6.67E-06	1.67E-07	9.60E-08	2.84E-06	6.33E-06	5.72E-05	1.34E-06	3.51E-07	9.88E-04	9.88E-06	0.00E+00	9.23E-05	9.12E-06	5.76E-07	4.87E-04	9.55E-06	4.80E-08
n-Hexane	9.90E-06	0.00E+00	1.63E-05	6.29E-05	5.15E-07	1.77E-06	1.58E-05	5.11E-06	3.05E-06	8.02E-07	2.81E-05	0.00E+00	3.96E-06	1.58E-05	1.32E-06	8.35E-06	1.03E-06	0.00E+00	
Hydrazine	0.00E+00	0.00E+00	0.00E+00	7.48E-08	0.00E+00	4.10E-07	0.00E+00	1.03E-06	6.00E-07	1.58E-07	2.18E-07	1.21E-07	0.00E+00	1.21E-07	2.59E-07	0.00E+00	0.00E+00	0.00E+00	
Hydrogen chloride	8.89E-05	3.73E-05	1.55E-05	2.04E-05	8.05E-04	2.90E-05	3.82E-04	1.19E-03	4.11E-05	1.08E-05	1.01E-04	8.43E-05	0.00E+00	2.81E-06	2.59E-05	1.77E-05	2.51E-03	4.36E-06	5.57E-06
Isopropyl alcohol	1.35E-03	1.42E-04	2.79E-04	5.20E-04	6.35E-04	9.62E-05	8.89E-05	7.78E-04	1.45E-04	3.80E-05	2.48E-03	2.38E-04	3.79E-07	2.36E-04	1.38E-04	6.23E-05	1.77E-04	6.01E-05	4.17E-06
Methanol	2.64E-03	1.46E-04	3.17E-04	7.19E-04	1.08E-04	7.72E-04	1.17E-04	5.04E-04	1.32E-03	3.47E-04	5.45E-04	8.05E-05	4.75E-05	1.85E-06	6.35E-04	5.70E-04	8.69E-05	2.48E-04	1.38E-05
Methylene chloride	6.97E-05	0.00E+00	1.25E-05	7.41E-04	8.38E-06	3.42E-03	3.99E-06	4.28E-05	5.88E-03	1.55E-03	5.62E-05	2.55E-05	4.39E-06	0.00E+00	4.42E-05	2.54E-03	2.53E-05	0.00E+00	1.60E-07
Tetrachloroethylene (Perch)	0.00E+00	0.00E+00	1.94E-07	6.73E-07	4.86E-06	3.14E-06	1.26E-06	0.00E+00	5.40E-06	1.42E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.33E-06	0.00E+00	0.00E+00	0.00E+00
Toulene	1.76E-05	0.00E+00	8.45E-06	6.90E-05	1.13E-05	2.47E-04	4.10E-05	5.42E-05	4.24E-04	1.12E-04	2.44E-05	1.85E-05	0.00E+00	6.57E-06	8.35E-06	1.83E-04	7.36E-06	0.00E+00	0.00E+00
Trichloroethane (1,1,1-)	0.00E+00	1.31E-04	0.00E+00	8.58E-06	2.09E-06	6.77E-07	0.00E+00	0.00E+00	1.16E-06	3.06E-07	9.64E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.02E-07	8.04E-06	4.18E-06	0.00E+00
Trichloroethylene	0.00E+00	1.16E-05	9.19E-06	1.26E-05	6.92E-06	0.00E+00	0.00E+00	9.19E-06	0.00E+00	0.00E+00	4.55E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	6.26E-06	0.00E+00	1.25E-06	9.42E-06	4.96E-06	3.02E-05	1.22E-05	9.33E-05	1.44E-05	3.79E-06	1.42E-04	6.68E-06	1.04E-07	5.12E-05	9.39E-07	6.22E-06	1.18E-05	1.41E-05	5.22E-07
Tier II																			
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	0.00E+00	1.12E-06	0.00E+00	3.90E-06	1.87E-07	6.84E-06	0.00E+00	7.49E-07	1.18E-05	3.09E-06	0.00E+00	1.12E-06	0.00E+00	0.00E+00	0.00E+00	5.07E-06	0.00E+00	0.00E+00	0.00E+00
Butyl alcohol, tert-	1.27E-05	1.23E-06	9.48E-08	4.55E-07	1.12E-05	2.12E-06	1.22E-05	1.00E-02	3.65E-06	9.60E-07	7.11E-07	7.11E-07	0.00E+00	0.00E+00	5.59E-06	1.57E-06	0.00E+00	0.00E+00	0.00E+00
Dimethylformamide	5.07E-06	0.00E+00	0.00E+00	3.69E-06	3.42E-07	1.72E-05	1.14E-07	3.76E-06	2.96E-05	7.78E-06	4.99E-05	1.20E-06	0.00E+00	0.00E+00	1.48E-06	1.28E-05	0.00E+00	6.84E-06	1.14E-07
Epichlorohydrin	0.00E+00	0.00E+00	0.00E+00	1.65E-07	0.00E+00	7.69E-07	0.00E+00	0.00E+00	1.32E-06	3.47E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.08E-08	5.70E-07	0.00E+00	0.00E+00	0.00E+00
Ethanol	6.39E-02	0.00E+00	9.15E-04	1.97E-03	7.28E-04	3.30E-03	5.89E-04	5.02E-03	4.97E-03	1.31E-03	1.93E-02	2.14E-03	7.82E-05	1.25E-03	7.75E-03	2.14E-03	1.38E-01	1.39E-03	1.46E-02
Ethyl acetate	2.89E-05	0.00E+00	7.02E-05	4.45E-04	0.00E+00	2.08E-03	4.94E-05	3.11E-05	3.57E-03	9.38E-04	2.69E-05	1.39E-05	0.00E+00	0.00E+00	8.10E-06	1.54E-03	5.83E-06	2.81E-06	7.77E-06
Ethyl ether	1.83E-05	0.00E+00	0.00E+00	2.43E-04	2.81E-05	1.13E-03	4.26E-07	8.39E-06	1.95E-03	5.13E-04	2.48E-05	2.47E-06	2.13E-06	4.47E-06	6.17E-06	8.41E-04	2.43E-06	2.13E-07	4.26E-08
Glutaraldehyde	1.39E-06	0.00E+00	1.32E-07	9.95E-09	0.00E+00	5.26E-06	0.00E+00	2.80E-05	7.99E-08	2.10E-08	1.38E-05	7.26E-07	0.00E+00	4.35E-06	5.08E-06	3.44E-08	3.30E-07	0.00E+00	0.00E+00
Hydrogen fluoride	0.00E+00	1.39E-04	0.00E+00	9.26E-07	4.41E-05	1.02E-07	2.09E-07	4.52E-07	1.75E-07	4.61E-08	8.70E-07	0.00E+00	4.17E-07	0.00E+00	0.00E+00	7.57E-08	3.12E-05	0.00E+00	0.00E+00
Methyl bromide	0.00E+00	0.00E+00	0.00E+00	1.99E-06	0.00E+00	9.30E-06	1.38E-02	0.00E+00	1.60E-05	4.20E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.89E-06	0.00E+00	0.00E+00	0.00E+00
Phosgene	0.00E+00	0.00E+00	0.00E+00	5.29E-07	0.00E+00	2.47E-06	0.00E+00	0.00E+00	4.25E-06	1.12E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-06	0.00E+00	0.00E+00	0.00E+00
Pyridine	3.12E-06	0.00E+00	0.00E+00	7.84E-06	7.64E-07	1.49E-05	3.88E-06	1.19E-05	2.56E-05	6.74E-06	6.76E-06	9.99E-07	0.00E+00	0.00E+00	1.18E-07	1.11E-05	3.88E-06	5.88E-08	
Tetrahydrofuran	6.94E-07	0.00E+00	5.34E-08	1.18E-04	0.00E+00	5.49E-04	0.00E+00	4.43E-06	9.44E-04	2.48E-04	2.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.07E-04	0.00E+00	0.00E+00	5.34E-08
Triethylamine	9.85E-06	0.00E+00	0.00E+00	4.35E-06	0.00E+00	2.03E-05	0.00E+00	9.94E-06	3.49E-05	9.19E-06	2.71E-06	0.00E+00	0.00E+00	0.00E+00	2.32E-06	1.51E-05	5.69E-07	8.76E-08	3.46E-06
Hydrogen-3 (Tritium)	9.12E-15	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.47E-15	2.21E-14	0.00E+00	0.00E+00	1.68E-14	5.40E-15	2.43E-15	5.11E-16	4.09E-16	0.00E+00	2.17E-14	3.15E-15	2.83E-15
Iodine-125	3.65E-15	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-15	8.82E-15	0.00E+00	0.00E+00	6.74E-15	2.16E-15	9.74E-16	2.05E-16	1.64E-16	0.00E+00	8.69E-15	1.26E-15	1.13E-15

[1] These emissions used for existing modeling only. The LRDP modeling accounts for the buildings under construction.

HOURLY LABORATORY EMISSIONS BY BUILDING UNDER EXISTING CONDITIONS

Chemical	Barker Hall (g/s)	Cory Hall (g/s)	Davis/ Etcheverry Hall (Existing)[1] (g/s)	Gillman/ Birge/ LeConte Hall (g/s)	Hesse/ McCone/ O'Brien (g/s)	Hildebrand/ Giauque/ Minor/ Minor Add Hall (g/s)	Hilgard Hall (g/s)	Koshland Hall (g/s)	Latimer Hall (g/s)	Lewis Hall (g/s)	LSA (g/s)	Morgan Hall (g/s)	Mulford Hall (g/s)	Northwest Animal Facilty (g/s)	Stanley Hall (Existing)[1] (g/s)	Tan Hall (g/s)	Valley Life Sciences Building (g/s)	Warren Hall (g/s)	Wellman Hall (g/s)
Tier I																			
Acetonitrile	9.46E-04	0.00E+00	2.50E-04	3.31E-04	0.00E+00	1.54E-03	1.65E-04	1.27E-03	2.65E-03	6.98E-04	8.85E-04	2.69E-04	0.00E+00	0.00E+00	2.27E-03	1.14E-03	5.43E-05	2.57E-04	0.00E+00
Benzene	6.29E-06	0.00E+00	3.55E-06	8.27E-05	3.20E-05	3.69E-04	5.50E-05	7.66E-06	6.35E-04	1.67E-04	3.12E-05	3.01E-06	0.00E+00	0.00E+00	1.15E-05	2.74E-04	3.83E-06	1.37E-06	0.00E+00
Carbon tetrachloride	5.93E-05	0.00E+00	0.00E+00	2.04E-04	5.94E-05	3.04E-05	3.11E-05	4.25E-04	5.22E-05	1.37E-05	1.52E-04	2.33E-05	0.00E+00	0.00E+00	1.16E-05	2.25E-05	1.79E-06	0.00E+00	0.00E+00
Chloroform	1.35E-03	6.07E-05	3.22E-06	1.34E-03	1.20E-05	4.46E-03	1.03E-04	4.14E-03	7.65E-03	2.01E-03	3.07E-03	3.07E-04	9.20E-07	4.60E-05	2.77E-04	3.30E-03	9.84E-05	2.39E-05	1.24E-05
Dioxane, 1,4-	6.08E-06	0.00E+00	0.00E+00	9.13E-05	6.08E-06	4.32E-04	4.16E-06	1.41E-05	7.32E-04	1.93E-04	9.28E-05	1.64E-04	0.00E+00	0.00E+00	2.62E-05	3.16E-04	0.00E+00	0.00E+00	3.20E-07
Formaldehyde	2.61E-04	1.49E-06	3.45E-05	8.63E-07	4.97E-07	1.47E-05	3.28E-04	2.96E-04	6.92E-06	1.82E-06	5.12E-03	5.12E-05	0.00E+00	4.78E-04	4.72E-05	2.98E-06	2.52E-03	4.95E-05	2.49E-07
n-Hexane	5.13E-05	0.00E+00	8.43E-05	3.26E-04	2.67E-06	9.19E-06	8.20E-05	2.65E-05	1.58E-05	4.15E-06	2.42E-05	1.46E-04	0.00E+00	2.05E-05	8.16E-05	6.81E-06	4.33E-05	5.33E-06	0.00E+00
Hydrazine	0.00E+00	0.00E+00	0.00E+00	3.87E-07	0.00E+00	2.12E-06	0.00E+00	5.33E-06	3.11E-06	8.17E-07	1.13E-06	6.28E-07	0.00E+00	0.00E+00	6.28E-07	1.34E-06	0.00E+00	0.00E+00	0.00E+00
Hydrogen chloride	4.60E-04	1.93E-04	8.02E-05	1.06E-04	4.17E-03	1.50E-04	1.98E-03	6.16E-03	2.13E-04	5.60E-05	5.21E-04	4.37E-04	0.00E+00	1.46E-05	1.34E-04	1.30E-02	9.18E-05	2.26E-05	2.89E-05
Isopropyl alcohol	6.98E-03	7.35E-04	1.45E-03	2.69E-03	3.29E-03	4.98E-04	4.60E-04	4.03E-03	7.49E-04	1.97E-04	1.29E-02	1.23E-03	1.96E-06	1.22E-03	7.15E-04	3.23E-04	9.19E-04	3.11E-04	2.16E-05
Methanol	1.37E-02	7.59E-04	1.64E-03	3.72E-03	5.59E-04	4.00E-03	6.06E-04	2.61E-03	6.84E-03	1.80E-03	2.82E-03	4.17E-04	2.46E-04	9.57E-06	3.29E-03	2.95E-03	4.50E-04	1.28E-03	7.14E-05
Methylene chloride	3.61E-04	0.00E+00	6.49E-05	3.84E-03	4.34E-05	1.77E-02	2.07E-05	2.22E-04	3.05E-02	8.01E-03	2.91E-04	1.32E-04	2.27E-05	0.00E+00	2.29E-04	1.31E-02	1.31E-04	0.00E+00	8.26E-07
Tetrachloroethylene (Perch)	0.00E+00	0.00E+00	1.01E-06	3.49E-06	2.52E-05	1.63E-05	6.54E-06	0.00E+00	2.80E-05	7.36E-06	1.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-05	0.00E+00	0.00E+00	0.00E+00
Toulene	9.11E-05	0.00E+00	4.38E-05	3.58E-04	5.84E-05	1.28E-03	2.12E-04	2.81E-04	2.20E-03	5.78E-04	1.26E-04	9.60E-05	0.00E+00	3.41E-05	4.32E-06	9.48E-04	3.81E-05	0.00E+00	
Trichloroethane (1,1,1-)	0.00E+00	6.79E-04	0.00E+00	4.45E-05	1.08E-05	3.50E-06	0.00E+00	0.00E+00	6.02E-06	1.58E-06	5.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.60E-06	4.16E-07	2.16E-05	0.00E+00
Trichloroethylene	0.00E+00	5.99E-05	4.76E-05	6.53E-05	3.58E-05	0.00E+00	0.00E+00	4.76E-05	0.00E+00	0.00E+00	2.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	3.24E-05	0.00E+00	6.49E-06	4.88E-05	2.57E-05	1.56E-04	6.32E-05	4.83E-04	7.47E-05	1.96E-05	7.38E-04	3.46E-05	5.41E-07	2.65E-04	4.87E-06	3.22E-05	6.11E-05	7.30E-05	2.70E-06
Tier II																			
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	0.00E+00	5.82E-06	0.00E+00	2.02E-05	9.69E-07	3.54E-05	0.00E+00	3.88E-06	6.09E-05	1.60E-05	0.00E+00	5.82E-06	0.00E+00	0.00E+00	0.00E+00	2.63E-05	0.00E+00	0.00E+00	0.00E+00
Butyl alcohol, tert-	6.60E-05	6.38E-06	4.91E-07	2.36E-06	5.82E-05	1.10E-05	6.33E-05	5.20E-02	1.89E-05	4.97E-06	3.68E-06	3.68E-06	0.00E+00	0.00E+00	2.90E-05	8.15E-06	0.00E+00	0.00E+00	0.00E+00
Dimethylformamide	2.63E-05	0.00E+00	0.00E+00	1.91E-05	1.77E-06	8.91E-05	5.90E-07	1.95E-05	1.53E-04	4.03E-05	2.58E-04	6.20E-06	0.00E+00	0.00E+00	7.67E-06	6.61E-05	0.00E+00	3.54E-05	5.90E-07
Epichlorohydrin	0.00E+00	0.00E+00	0.00E+00	8.53E-07	0.00E+00	3.98E-06	0.00E+00	0.00E+00	6.84E-05	1.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.67E-07	2.95E-06	0.00E+00	0.00E+00	0.00E+00
Ethanol	3.31E-01	0.00E+00	4.74E-03	1.02E-02	3.77E-03	1.71E-02	3.05E-03	2.60E-02	2.57E-02	6.77E-03	1.00E-01	1.11E-02	4.05E-04	6.48E-03	4.02E-02	1.11E-02	7.13E-01	7.20E-03	7.58E-02
Ethyl acetate	1.50E-04	0.00E+00	3.64E-06	2.30E-03	0.00E+00	1.08E-02	2.56E-04	1.61E-04	1.85E-02	4.86E-03	1.39E-04	7.21E-05	0.00E+00	0.00E+00	4.19E-05	7.97E-03	3.02E-05	1.45E-05	4.03E-05
Ethyl ether	9.49E-05	0.00E+00	0.00E+00	1.26E-03	1.46E-04	5.87E-03	2.21E-06	4.35E-05	1.01E-02	2.66E-03	1.28E-04	1.28E-05	1.10E-05	2.32E-05	3.20E-05	4.36E-03	1.26E-05	1.10E-06	2.21E-07
Glutaraldehyde	7.18E-06	0.00E+00	6.84E-07	5.16E-08	0.00E+00	2.72E-05	0.00E+00	1.45E-04	4.14E-07	1.09E-07	7.14E-05	3.76E-06	0.00E+00	2.26E-05	2.63E-05	1.78E-07	1.71E-06	0.00E+00	0.00E+00
Hydrogen fluoride	0.00E+00	7.23E-04	0.00E+00	4.80E-06	2.29E-04	5.29E-07	1.08E-06	2.34E-06	9.09E-07	2.39E-07	4.50E-06	0.00E+00	2.16E-06	0.00E+00	0.00E+00	3.92E-07	1.62E-04	0.00E+00	0.00E+00
Methyl bromide	0.00E+00	0.00E+00	0.00E+00	1.03E-05	0.00E+00	4.82E-05	7.14E-02	0.00E+00	8.28E-05	2.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.57E-05	0.00E+00	0.00E+00	0.00E+00
Phosgene	0.00E+00	0.00E+00	0.00E+00	2.74E-06	0.00E+00	1.28E-05	0.00E+00	0.00E+00	2.20E-05	5.79E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.49E-06	0.00E+00	0.00E+00	0.00E+00
Pyridine	1.61E-05	0.00E+00	0.00E+00	4.06E-05	3.96E-06	7.72E-05	2.01E-05	6.15E-05	1.33E-04	3.49E-05	3.50E-05	5.18E-06	0.00E+00	0.00E+00	6.09E-07	5.73E-05	2.01E-05	3.04E-07	0.00E+00
Tetrahydrofuran	3.59E-06	0.00E+00	2.77E-07	6.10E-04	0.00E+00	2.85E-03	0.00E+00	2.30E-05	4.89E-03	1.29E-03	1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	2.77E-07
Triethylamine	5.10E-05	0.00E+00	0.00E+00	2.26E-05	0.00E+00	1.05E-04	0.00E+00	5.15E-05	1.81E-04	4.76E-05	1.41E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-05	7.80E-05	2.95E-06	4.54E-07	1.79E-05
Hydrogen-3 (Tritium)	4.73E-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.87E-14	1.14E-13	0.00E+00	0.00E+00	8.72E-14	2.80E-14	1.26E-14	2.65E-15	2.12E-15	0.00E+00	1.12E-13	1.63E-14	1.47E-14
Iodine-125	1.89E-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-14	4.57E-14	0.00E+00	0.00E+00	3.49E-14	1.12E-14	5.05E-15	1.06E-15	8.47E-16	0.00E+00	4.50E-14	6.53E-15	5.87E-15

[1] These emissions used for existing modeling only. The LRDP modeling accounts for the buildings under construction.

ANNUAL EMISSION RATES FOR LRDP PROPOSED WET LABORATORIES

Chemical	A - Northwest Area	B - Northwest-Center Area	C - Northeast-Center Area	D - Northeast Area	E - Southwest Center Area	F - Southeast-Center Area	G - Southeast-Area	Davis Hall - Additional Labs[1]	Stanley - Additional Labs[1]
					(g/s)				
Tier I									
Acetonitrile	1.43E-03	2.89E-04	1.61E-04	8.59E-05	2.29E-04	1.82E-04	5.23E-05	7.12E-04	1.49E-03
Benzene	2.54E-04	5.15E-05	2.87E-05	1.53E-05	4.08E-05	3.23E-05	9.30E-06	1.27E-04	2.65E-04
Carbon tetrachloride	6.97E-05	1.41E-05	7.88E-06	4.20E-06	1.12E-05	8.88E-06	2.55E-06	3.48E-05	7.29E-05
Chloroform	3.08E-03	6.25E-04	3.48E-04	1.85E-04	4.95E-04	3.92E-04	1.13E-04	1.54E-03	3.22E-03
Dioxane, 1,4-	2.95E-04	5.98E-05	3.33E-05	1.78E-05	4.74E-05	3.75E-05	1.08E-05	1.47E-04	3.08E-04
Formaldehyde	8.77E-04	1.78E-04	9.91E-05	5.28E-05	1.41E-04	1.12E-04	3.21E-05	4.42E-04	9.17E-04
n-Hexane	9.11E-05	1.85E-05	1.03E-05	5.48E-06	1.46E-05	1.16E-05	3.34E-06	5.12E-05	9.53E-05
Hydrazine	1.34E-06	2.71E-07	1.51E-07	8.05E-08	2.15E-07	1.70E-07	4.90E-08	6.67E-07	1.40E-06
Hydrogen chloride	2.25E-03	4.57E-04	2.55E-04	1.36E-04	3.62E-04	2.87E-04	8.26E-05	1.13E-03	2.36E-03
Isopropyl alcohol	2.85E-03	5.77E-04	3.22E-04	1.71E-04	4.57E-04	3.63E-04	1.04E-04	1.52E-03	2.98E-03
Methanol	1.30E-02	2.64E-03	1.47E-03	7.84E-04	2.09E-03	1.66E-03	4.77E-04	6.52E-03	1.36E-02
Methylene chloride	1.21E-02	2.46E-03	1.37E-03	7.30E-04	1.95E-03	1.54E-03	4.44E-04	6.06E-03	1.27E-02
Tetrachloroethylene (Perch)	1.11E-05	2.25E-06	1.25E-06	6.68E-07	1.78E-06	1.41E-06	4.07E-07	5.54E-06	1.16E-05
Toulene	8.72E-04	1.77E-04	9.86E-05	5.25E-05	1.40E-04	1.11E-04	3.20E-05	4.35E-04	9.13E-04
Trichloroethane (1,1,1-)	1.55E-04	3.14E-05	1.75E-05	9.33E-06	2.49E-05	1.97E-05	5.68E-06	7.74E-05	1.62E-04
Trichloroethylene	4.41E-05	8.93E-06	4.98E-06	2.65E-06	7.08E-06	5.61E-06	1.61E-06	3.12E-05	4.61E-05
Xylenes	1.74E-04	3.53E-05	1.97E-05	1.05E-05	2.80E-05	2.22E-05	6.38E-06	8.76E-05	1.82E-04
Tier II									
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	2.42E-05	4.90E-06	2.73E-06	1.46E-06	3.88E-06	3.08E-06	8.86E-07	1.21E-05	2.53E-05
Butyl alcohol, tert-	5.16E-03	1.05E-03	5.83E-04	3.11E-04	8.29E-04	6.57E-04	1.89E-04	2.58E-03	5.40E-03
Dimethylformamide	6.20E-05	1.26E-05	7.01E-06	3.73E-06	9.96E-06	7.90E-06	2.27E-06	3.09E-05	6.49E-05
Epichlorohydrin	2.77E-06	5.63E-07	3.14E-07	1.67E-07	4.46E-07	3.53E-07	1.02E-07	1.38E-06	2.90E-06
Ethanol	8.67E-02	1.76E-02	9.80E-03	5.22E-03	1.39E-02	1.10E-02	3.18E-03	4.41E-02	9.07E-02
Ethyl acetate	7.34E-03	1.49E-03	8.29E-04	4.42E-04	1.18E-03	9.34E-04	2.69E-04	3.66E-03	7.67E-03
Ethyl ether	4.01E-03	8.13E-04	4.53E-04	2.41E-04	6.44E-04	5.11E-04	1.47E-04	2.00E-03	4.19E-03
Glutaraldehyde	2.75E-05	5.58E-06	3.11E-06	1.66E-06	4.43E-06	3.51E-06	1.01E-06	1.39E-05	2.88E-05
Hydrogen fluoride	2.02E-04	4.09E-05	2.28E-05	1.22E-05	3.24E-05	2.57E-05	7.40E-06	1.01E-04	2.11E-04
Methyl bromide	7.06E-03	1.43E-03	7.98E-04	4.25E-04	1.14E-03	9.00E-04	2.59E-04	3.53E-03	7.39E-03
Phosgene	8.73E-06	1.77E-06	9.86E-07	5.25E-07	1.40E-06	1.11E-06	3.20E-07	4.35E-06	9.13E-06
Pyridine	5.27E-05	1.07E-05	5.96E-06	3.18E-06	8.48E-06	6.72E-06	1.93E-06	2.63E-05	5.52E-05
Tetrahydrofuran	1.94E-03	3.93E-04	2.19E-04	1.17E-04	3.12E-04	2.47E-04	7.11E-05	9.68E-04	2.03E-03
Triethylamine	7.37E-05	1.50E-05	8.34E-06	4.44E-06	1.19E-05	9.39E-06	2.70E-06	3.68E-05	7.71E-05
Hydrogen-3 (Tritium)	3.50E-09	7.09E-10	3.95E-10	2.11E-10	5.62E-10	4.45E-10	1.28E-10	1.75E-09	3.66E-09
Iodine-125	1.40E-09	2.84E-10	1.58E-10	8.42E-11	2.25E-10	1.78E-10	5.13E-11	6.98E-10	1.46E-09

[1] These laboratories are replacements to those represented in the existing conditions modeling.

HOURLY EMISSION RATES FOR LRDP PROPOSED WET LABORATORIES

Chemical	New Laboratories	A - Northwest Area	B - Northwest-Center Area	C - Northeast-Center Area	D - Northeast Area	E - Southwest Center Area	F - Southeast-Center Area	G - Southeast-Area	Davis Hall - Additional Labs	Stanley - Additional Labs
					(g/s)					
Tier I										
Acetonitrile	2.22E-02	7.39E-03	1.50E-03	8.35E-04	4.45E-04	1.19E-03	9.41E-04	2.71E-04	3.69E-03	7.73E-03
Benzene	3.95E-03	1.31E-03	2.67E-04	1.49E-04	7.92E-05	2.11E-04	1.67E-04	4.82E-05	6.56E-04	1.38E-03
Carbon tetrachloride	1.08E-03	3.61E-04	7.32E-05	4.08E-05	2.17E-05	5.80E-05	4.60E-05	1.32E-05	1.80E-04	3.78E-04
Chloroform	4.79E-02	1.60E-02	3.23E-03	1.80E-03	9.61E-04	2.56E-03	2.03E-03	5.85E-04	7.96E-03	1.67E-02
Dioxane, 1,4-	4.59E-03	1.53E-03	3.10E-04	1.73E-04	9.20E-05	2.45E-04	1.95E-04	5.60E-05	7.62E-04	1.60E-03
Formaldehyde	1.36E-02	4.54E-03	9.21E-04	5.13E-04	2.73E-04	7.30E-04	5.78E-04	1.66E-04	2.29E-03	4.75E-03
n-Hexane	1.42E-03	4.72E-04	9.56E-05	5.33E-05	2.84E-05	7.58E-05	6.01E-05	1.73E-05	2.65E-04	4.93E-04
Hydrazine	2.08E-05	6.92E-06	1.40E-06	7.82E-07	4.17E-07	1.11E-06	8.82E-07	2.54E-07	3.45E-06	7.24E-06
Hydrogen chloride	3.51E-02	1.17E-02	2.37E-03	1.32E-03	7.03E-04	1.88E-03	1.49E-03	4.28E-04	5.83E-03	1.22E-02
Isopropyl alcohol	4.43E-02	1.47E-02	2.99E-03	1.67E-03	8.88E-04	2.37E-03	1.88E-03	5.40E-04	7.88E-03	1.54E-02
Methanol	2.03E-01	6.75E-02	1.37E-02	7.63E-03	4.06E-03	1.08E-02	8.59E-03	2.47E-03	3.38E-02	7.06E-02
Methylene chloride	1.89E-01	6.28E-02	1.27E-02	7.09E-03	3.78E-03	1.01E-02	7.99E-03	2.30E-03	3.14E-02	6.57E-02
Tetrachloroethylene (Perch)	1.73E-04	5.75E-05	1.17E-05	6.49E-06	3.46E-06	9.23E-06	7.32E-06	2.11E-06	2.87E-05	6.01E-05
Toulene	1.36E-02	4.52E-03	9.16E-04	5.11E-04	2.72E-04	7.26E-04	5.76E-04	1.66E-04	2.26E-03	4.73E-03
Trichloroethane (1,1,1-)	2.41E-03	8.03E-04	1.63E-04	9.07E-05	4.83E-05	1.29E-04	1.02E-04	2.94E-05	4.01E-04	8.40E-04
Trichloroethylene	6.86E-04	2.28E-04	4.63E-05	2.58E-05	1.37E-05	3.67E-05	2.91E-05	8.36E-06	1.62E-04	2.39E-04
Xylenes	2.71E-03	9.02E-04	1.83E-04	1.02E-04	5.43E-05	1.45E-04	1.15E-04	3.30E-05	4.54E-04	9.43E-04
Tier II										
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	3.76E-04	1.25E-04	2.54E-05	1.41E-05	7.54E-06	2.01E-05	1.59E-05	4.59E-06	6.25E-05	1.31E-04
Butyl alcohol, tert-	8.03E-02	2.67E-02	5.42E-03	3.02E-03	1.61E-03	4.30E-03	3.40E-03	9.80E-04	1.33E-02	2.80E-02
Dimethylformamide	9.65E-04	3.21E-04	6.51E-05	3.63E-05	1.93E-05	5.16E-05	4.09E-05	1.18E-05	1.60E-04	3.36E-04
Epichlorohydrin	4.32E-05	1.44E-05	2.91E-06	1.62E-06	8.65E-07	2.31E-06	1.83E-06	5.27E-07	7.17E-06	1.50E-05
Ethanol	1.35E+00	4.49E-01	9.11E-02	5.08E-02	2.70E-02	7.22E-02	5.72E-02	1.65E-02	2.28E-01	4.70E-01
Ethyl acetate	1.14E-01	3.80E-02	7.71E-03	4.30E-03	2.29E-03	6.11E-03	4.84E-03	1.39E-03	1.90E-02	3.98E-02
Ethyl ether	6.24E-02	2.08E-02	4.21E-03	2.35E-03	1.25E-03	3.34E-03	2.65E-03	7.61E-04	1.04E-02	2.17E-02
Glutaraldehyde	4.28E-04	1.43E-04	2.89E-05	1.61E-05	8.59E-06	2.29E-05	1.82E-05	5.23E-06	7.19E-05	1.49E-04
Hydrogen fluoride	3.14E-03	1.05E-03	2.12E-04	1.18E-04	6.30E-05	1.68E-04	1.33E-04	3.83E-05	5.22E-04	1.09E-03
Methyl bromide	1.10E-01	3.66E-02	7.42E-03	4.14E-03	2.20E-03	5.88E-03	4.66E-03	1.34E-03	1.83E-02	3.83E-02
Phosgene	1.36E-04	4.52E-05	9.16E-06	5.11E-06	2.72E-06	7.26E-06	5.76E-06	1.66E-06	2.26E-05	4.73E-05
Pyridine	8.21E-04	2.73E-04	5.54E-05	3.09E-05	1.65E-05	4.39E-05	3.48E-05	1.00E-05	1.36E-04	2.86E-04
Tetrahydrofuran	3.02E-02	1.00E-02	2.04E-03	1.14E-03	6.05E-04	1.61E-03	1.28E-03	3.68E-04	5.02E-03	1.05E-02
Triethylamine	1.15E-03	3.82E-04	7.75E-05	4.32E-05	2.30E-05	6.14E-05	4.87E-05	1.40E-05	1.91E-04	4.00E-04
Hydrogen-3 (Tritium)	5.44E-08	1.81E-08	3.67E-09	2.05E-09	1.09E-09	2.91E-09	2.31E-09	6.64E-10	9.04E-09	1.89E-08
Iodine-125	2.18E-08	7.25E-09	1.47E-09	8.19E-10	4.36E-10	1.16E-09	9.23E-10	2.66E-10	3.62E-09	7.58E-09

CANCER RISK MODEL INPUTS BY BUILDING UNDER EXISTING CONDITIONS

Chemical	Unit Risk Factor	Barker Hall	Cory Hall	Davis/ Etcheverry Hall (Existing)[1]	Gillman/ Birge/ LeConte Hall	Hesse/ McCone/ O'Brien	Hildebrand/ Giauque/ Minor/ Minor Add Hall	Hilgard Hall	Koshland Hall	Latimer Hall	Lewis Hall	LSA	Morgan Hall	Mulford Hall	Northwest Animal Facilty	Stanley Hall (Existing)[1]	Tan Hall	Valley Life Sciences Building	Warren Hall	Wellman Hall
	(µg/m3 -1)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)	(g/s/µg/m3)
Tier I																				
Acetonitrile	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Benzene	2.90E-05	3.52E-11	0.00E+00	1.99E-11	4.63E-10	1.79E-10	2.07E-09	3.08E-10	4.29E-11	3.56E-09	9.35E-10	1.74E-10	1.68E-11	0.00E+00	0.00E+00	6.43E-11	1.53E-09	2.14E-11	7.65E-12	0.00E+00
Carbon tetrachloride	4.20E-05	4.81E-10	0.00E+00	0.00E+00	1.65E-09	4.81E-10	2.46E-10	2.52E-10	3.44E-09	4.23E-10	1.11E-10	1.23E-09	1.89E-10	0.00E+00	0.00E+00	9.43E-11	1.82E-10	1.45E-11	0.00E+00	0.00E+00
Chloroform	5.30E-06	1.38E-09	6.21E-11	3.29E-12	1.37E-09	1.22E-11	4.57E-09	1.05E-10	4.24E-09	7.83E-09	2.06E-09	3.14E-09	3.14E-10	9.41E-13	4.70E-11	2.83E-10	3.38E-09	1.01E-10	2.45E-11	1.27E-11
Dioxane, 1,4-	7.70E-06	9.04E-12	0.00E+00	0.00E+00	1.36E-10	9.04E-12	6.42E-10	6.18E-12	2.09E-11	1.09E-09	2.86E-10	1.38E-11	2.44E-10	0.00E+00	0.00E+00	3.90E-11	4.70E-10	0.00E+00	0.00E+00	4.76E-13
Formaldehyde	6.00E-06	3.03E-10	1.73E-12	4.00E-11	9.99E-13	5.76E-13	1.70E-11	3.80E-11	3.43E-10	8.01E-12	2.11E-12	5.93E-09	5.93E-11	0.00E+00	5.54E-10	5.47E-11	3.46E-12	2.92E-09	5.73E-11	2.88E-13
n-Hexane	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Hydrazine	4.90E-03	0.00E+00	0.00E+00	0.00E+00	3.66E-10	0.00E+00	2.01E-09	0.00E+00	5.05E-09	2.94E-09	7.73E-10	1.07E-09	5.94E-10	0.00E+00	0.00E+00	5.94E-10	1.27E-09	0.00E+00	0.00E+00	0.00E+00
Hydrogen chloride	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Isopropyl alcohol	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Methanol	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Methylene chloride	1.00E-06	6.97E-11	0.00E+00	1.25E-11	7.41E-10	8.38E-12	3.42E-09	3.99E-12	4.28E-11	5.88E-09	1.55E-09	5.62E-11	2.55E-11	4.39E-12	0.00E+00	4.42E-11	2.54E-09	2.53E-11	0.00E+00	1.60E-13
Tetrachloroethylene (Perch)	5.90E-06	0.00E+00	0.00E+00	1.15E-12	3.97E-12	2.87E-11	1.85E-11	7.45E-12	0.00E+00	3.19E-11	8.38E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-11	0.00E+00	0.00E+00	0.00E+00
Toulene	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Trichloroethane (1,1,1-)	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Trichloroethylene	2.00E-06	0.00E+00	2.31E-11	1.84E-11	2.52E-11	1.38E-11	0.00E+00	0.00E+00	1.84E-11	0.00E+00	0.00E+00	9.11E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Tier II																				
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Butyl alcohol, tert-	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Dimethylformamide	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Epichlorohydrin	2.30E-05	0.00E+00	0.00E+00	0.00E+00	3.79E-12	0.00E+00	1.77E-11	0.00E+00	0.00E+00	3.04E-11	7.99E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-12	1.31E-11	0.00E+00	0.00E+00	0.00E+00
Ethanol	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Ethyl acetate	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Ethyl ether	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Glutaraldehyde	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Hydrogen fluoride	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Methyl bromide	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Phosgene	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Pyridine	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Tetrahydrofuran	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Triethylamine	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Hydrogen-3 (Tritium)	4.00E-02	3.65E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-16	8.82E-16	0.00E+00	0.00E+00	6.74E-16	2.16E-16	9.74E-17	2.05E-17	1.64E-17	0.00E+00	8.69E-16	1.26E-16	1.13E-16
Iodine-125	2.70E+00	9.85E-15	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.07E-15	2.38E-14	0.00E+00	0.00E+00	1.82E-14	5.84E-15	2.63E-15	5.52E-16	4.42E-16	0.00E+00	2.35E-14	3.40E-15	3.06E-15
Total		2.28E-09	8.69E-11	9.53E-11	4.77E-09	7.33E-10	1.30E-08	7.21E-10	1.32E-08	2.18E-08	5.73E-09	1.16E-08	1.44E-09	5.33E-12	6.01E-10	1.18E-09	9.40E-09	3.08E-09	8.94E-11	1.36E-11
No. of Stacks per Building		5	1	1	13	1	5	1	4	8	9	7	6	1	1	11	4	4	2	1
Cancer Risk per Stack		4.56E-10	8.69E-11	9.53E-11	3.67E-10	7.33E-10	2.60E-09	7.21E-10	3.30E-09	2.72E-09	6.37E-10	1.66E-09	2.40E-10	5.33E-12	6.01E-10	1.07E-10	2.35E-09	7.71E-10	4.47E-11	1.36E-11
Cancer Risk x 1,000,000 (model input)		4.56E-04	8.69E-05	9.53E-05	3.67E-04	7.33E-04	2.60E-03	7.21E-04	3.30E-03	2.72E-03	6.37E-04	1.66E-03	2.40E-04	5.33E-06	6.01E-04	1.07E-04	2.35E-03	7.71E-04	4.47E-05	1.36E-05

[1] These emissions used for existing modeling only. The LRDP modeling accounts for the buildings under construction.

CHRONIC NON-CANCER MODEL INPUTS BY BUILDING - OEHHA RELs - Existing Buildings

Chemical	Acceptable Exposure Level (OEHHA 1999)	Barker Hall	Cory Hall	Davis/Etcheverry Hall (Existing)	Gillman/Birge/LeConte Hall	Hesse/McCone/O'Brien	Hildebrand/Giauque/Minor/Minor Add Hall	Hilgard Hall	Koshland Hall	Latimer Hall	Lewis Hall	LSA	Morgan Hall	Mulford Hall	Northwest Animal Facilty	Stanley Hall (Existing)	Tan Hall	Valley Life Sciences Building	Warren Hall	Wellman Hall
Tier I																				
Acetonitrile	5.95E+01	3.07E-06	0.00E+00	8.10E-07	1.07E-06	0.00E+00	5.01E-06	5.34E-07	4.11E-06	8.61E-06	2.27E-06	2.87E-06	8.74E-07	0.00E+00	0.00E+00	7.35E-06	3.71E-06	1.76E-07	8.33E-07	0.00E+00
Benzene2	6.00E+01	2.02E-08	0.00E+00	1.14E-08	2.66E-07	1.03E-07	1.19E-06	1.77E-07	2.46E-08	2.04E-06	5.37E-07	1.00E-07	9.68E-09	0.00E+00	0.00E+00	3.69E-08	8.81E-07	1.23E-08	4.40E-09	0.00E+00
Carbon tetrachloride	4.00E+01	2.86E-07	0.00E+00	0.00E+00	9.85E-07	2.87E-07	1.47E-07	1.50E-07	2.05E-06	2.52E-07	6.62E-08	7.34E-07	1.12E-07	0.00E+00	0.00E+00	5.61E-08	1.09E-07	8.64E-09	0.00E+00	0.00E+00
Chloroform	3.00E+02	8.71E-07	3.91E-08	2.07E-09	8.64E-07	7.69E-09	2.87E-06	6.63E-08	2.66E-06	4.92E-06	1.29E-06	1.97E-06	1.97E-07	5.92E-10	2.96E-08	1.78E-07	2.12E-06	6.33E-08	1.54E-08	7.99E-09
Dioxane, 1,4-	3.00E+03	3.91E-10	0.00E+00	0.00E+00	5.88E-09	3.91E-10	2.78E-08	2.68E-10	9.06E-10	4.71E-08	1.24E-08	5.97E-10	1.05E-08	0.00E+00	0.00E+00	1.69E-09	2.03E-08	0.00E+00	0.00E+00	2.06E-11
Formaldehyde2	3.00E+00	1.68E-05	9.60E-08	2.22E-06	5.55E-08	3.20E-08	9.47E-07	2.11E-06	1.91E-05	4.45E-07	1.17E-07	3.29E-04	3.29E-06	0.00E+00	3.08E-05	3.04E-06	1.92E-07	1.62E-04	3.18E-06	1.60E-08
n-Hexane	7.00E+03	1.41E-09	0.00E+00	2.32E-09	8.98E-09	7.35E-11	2.53E-10	2.26E-09	7.30E-10	4.36E-10	1.15E-10	6.67E-10	4.02E-09	0.00E+00	5.66E-10	2.25E-09	1.88E-10	1.19E-09	1.47E-10	0.00E+00
Hydrazine	2.00E-01	0.00E+00	0.00E+00	0.00E+00	3.74E-07	0.00E+00	2.05E-06	0.00E+00	5.15E-06	3.00E-06	7.89E-07	1.09E-06	6.06E-07	0.00E+00	0.00E+00	6.06E-07	1.29E-06	0.00E+00	0.00E+00	0.00E+00
Hydrogen chloride2	9.00E+00	9.87E-06	4.14E-06	1.72E-06	2.27E-06	8.94E-05	3.22E-06	4.24E-05	1.32E-04	4.57E-06	1.20E-06	1.12E-05	9.37E-06	0.00E+00	3.13E-07	2.88E-06	1.97E-06	2.79E-04	4.84E-07	6.19E-07
Isopropyl alcohol2	7.00E+03	1.93E-07	2.03E-08	3.99E-08	7.42E-08	9.07E-08	1.37E-08	1.27E-08	1.11E-07	2.06E-08	5.43E-09	3.55E-07	3.40E-08	5.42E-11	3.37E-08	1.97E-08	8.91E-09	2.53E-08	8.58E-09	5.96E-10
Methanol	4.00E+03	6.61E-07	3.66E-08	7.91E-08	1.80E-07	2.70E-08	1.93E-07	2.92E-08	1.26E-07	3.30E-07	8.68E-08	1.36E-07	2.01E-08	1.19E-08	4.62E-10	1.59E-07	1.42E-07	2.17E-08	6.20E-08	3.45E-09
Methylene chloride2	4.00E+02	1.74E-07	0.00E+00	3.13E-08	1.85E-06	2.09E-08	8.55E-06	9.97E-09	1.07E-07	1.47E-05	3.87E-06	1.40E-07	6.38E-08	1.10E-08	0.00E+00	1.10E-07	6.34E-06	6.32E-08	0.00E+00	3.99E-10
Tetrachloroethylene (Perc)	3.50E+01	0.00E+00	0.00E+00	5.55E-09	1.92E-08	1.39E-07	8.97E-08	3.61E-08	0.00E+00	1.54E-07	4.06E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.65E-08	0.00E+00	0.00E+00	0.00E+00
Toulene	3.00E+02	5.86E-08	0.00E+00	2.82E-08	2.30E-07	3.76E-08	8.23E-07	1.37E-07	1.81E-07	1.41E-06	3.72E-07	8.12E-08	6.17E-08	0.00E+00	2.19E-08	2.78E-09	6.10E-07	2.45E-08	0.00E+00	0.00E+00
Trichloroethane (1,1,1-)2	1.00E+03	0.00E+00	1.31E-07	0.00E+00	8.58E-09	2.09E-09	6.77E-10	0.00E+00	0.00E+00	1.16E-09	3.06E-10	9.64E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.02E-10	8.04E-11	4.18E-09	0.00E+00
Trichloroethylene	6.00E+02	0.00E+00	1.93E-08	1.53E-08	2.10E-08	1.15E-08	0.00E+00	0.00E+00	1.53E-08	0.00E+00	0.00E+00	7.59E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	7.00E+02	8.95E-09	0.00E+00	1.79E-09	1.35E-08	7.08E-09	4.31E-08	1.74E-08	1.33E-07	2.06E-08	5.42E-09	2.04E-07	9.54E-09	1.49E-10	7.31E-08	1.34E-09	8.88E-09	1.68E-08	2.01E-08	7.45E-10
Tier II																				
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	1.60E+00	0.00E+00	7.02E-07	0.00E+00	2.44E-06	1.17E-07	4.28E-06	0.00E+00	4.68E-07	7.35E-06	1.93E-06	0.00E+00	7.02E-07	0.00E+00	0.00E+00	0.00E+00	3.17E-06	0.00E+00	0.00E+00	0.00E+00
Butyl alcohol, tert-	7.14E+02	1.79E-08	1.73E-09	1.33E-10	6.37E-10	1.57E-08	2.97E-09	1.71E-08	1.41E-05	5.11E-09	1.34E-09	9.95E-10	9.95E-10	0.00E+00	0.00E+00	7.83E-09	2.20E-09	0.00E+00	0.00E+00	0.00E+00
Dimethylformamide	8.00E+01	6.34E-08	0.00E+00	0.00E+00	4.61E-08	4.27E-09	2.15E-07	1.42E-09	4.70E-08	3.70E-07	9.72E-08	6.23E-07	1.50E-08	0.00E+00	0.00E+00	1.85E-08	1.59E-07	0.00E+00	8.55E-08	1.42E-09
Epichlorohydrin	3.00E+00	0.00E+00	0.00E+00	0.00E+00	5.49E-08	0.00E+00	2.56E-07	0.00E+00	0.00E+00	4.40E-07	1.16E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-08	1.90E-07	0.00E+00	0.00E+00	0.00E+00
Ethanol	4.48E+03	1.43E-05	0.00E+00	2.04E-07	4.40E-07	1.63E-07	7.38E-07	1.32E-07	1.12E-06	1.11E-06	2.92E-07	4.31E-06	4.78E-07	1.75E-08	2.79E-07	1.73E-06	4.79E-07	3.07E-05	3.11E-07	3.27E-06
Ethyl acetate	3.15E+03	9.17E-08	0.00E+00	2.23E-10	1.41E-07	0.00E+00	6.59E-07	1.57E-08	9.89E-09	1.13E-06	2.98E-07	8.53E-08	4.42E-09	0.00E+00	0.00E+00	2.57E-09	4.89E-07	1.85E-09	8.91E-10	2.47E-09
Ethyl ether	7.00E+02	2.62E-08	0.00E+00	0.00E+00	3.47E-07	4.02E-08	1.62E-06	6.08E-10	1.20E-08	2.78E-06	7.32E-07	3.54E-08	3.53E-09	3.04E-09	6.39E-09	8.82E-09	1.20E-06	3.47E-09	3.04E-10	6.08E-11
Glutaraldehyde	1.00E-01	1.39E-05	0.00E+00	1.32E-06	9.95E-08	0.00E+00	5.26E-05	0.00E+00	2.80E-04	7.99E-07	2.10E-07	1.38E-04	7.26E-06	0.00E+00	4.35E-05	5.08E-05	3.44E-07	3.30E-06	0.00E+00	0.00E+00
Hydrogen fluoride	5.50E+00	0.00E+00	2.54E-05	0.00E+00	1.68E-07	8.03E-06	1.86E-08	3.79E-08	8.22E-08	3.19E-08	8.39E-09	1.58E-07	0.00E+00	7.59E-08	0.00E+00	0.00E+00	1.38E-08	5.68E-06	0.00E+00	0.00E+00
Methyl bromide	5.00E+00	0.00E+00	0.00E+00	0.00E+00	3.99E-07	0.00E+00	1.86E-06	2.76E-03	0.00E+00	3.20E-06	8.41E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-06	0.00E+00	0.00E+00	0.00E+00
Phosgene	3.00E-01	0.00E+00	0.00E+00	0.00E+00	1.76E-06	0.00E+00	8.24E-06	0.00E+00	0.00E+00	1.42E-05	3.72E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.11E-06	0.00E+00	0.00E+00	0.00E+00
Pyridine	3.50E+00	8.90E-07	0.00E+00	0.00E+00	2.24E-06	2.18E-07	4.26E-06	1.11E-06	3.39E-06	7.32E-06	1.93E-06	1.93E-06	2.85E-07	0.00E+00	0.00E+00	3.36E-08	3.16E-06	1.11E-06	1.68E-08	0.00E+00
Tetrahydrofuran	3.01E+02	2.31E-09	0.00E+00	1.77E-10	3.91E-07	0.00E+00	1.82E-06	0.00E+00	1.47E-08	3.14E-06	8.25E-07	7.20E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E-06	0.00E+00	0.00E+00	1.77E-10
Triethylamine	2.00E+02	4.93E-08	0.00E+00	0.00E+00	2.18E-08	0.00E+00	1.02E-07	0.00E+00	4.97E-08	1.75E-07	4.59E-08	1.36E-08	0.00E+00	0.00E+00	0.00E+00	1.16E-08	7.53E-08	2.85E-09	4.38E-10	1.73E-08
Hydrogen-3 (Tritium)	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Iodine-125	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total		5.82E-05	3.06E-05	5.68E-06	1.58E-05	9.88E-05	9.68E-05	2.80E-03	4.61E-04	7.39E-05	1.94E-05	4.90E-04	2.25E-05	1.20E-07	7.51E-05	5.97E-05	3.19E-05	4.83E-04	4.20E-06	3.94E-06
No of Stacks		5	1	1	13	1	5	1	4	8	9	7	6	1	1	11	4	4	2	1
Input per stack		1.16E-05	3.06E-05	5.68E-06	1.21E-06	9.88E-05	1.94E-05	2.80E-03	1.15E-04	9.24E-06	2.16E-06	7.00E-05	3.76E-06	1.20E-07	7.51E-05	5.43E-06	7.97E-06	1.21E-04	2.10E-06	3.94E-06

ACUTE NON-CANCER MODEL INPUTS BY BUILDING - Existing Buildings

Chemical	Acceptable Exposure Level	Barker Hall	Cory Hall	Davis and Etcheberry (Existing)	Gillman/Birge/LeConte Hall	Hesse/McCone/O'Brien	Hildebrand/Giauque/Minor/Minor Add Hall	Hilgard Hall	Koshland Hall	Latimer Hall	Lewis Hall	LSA	Morgan Hall	Mulford Hall	Northwest Animal Facilty	Stanley Hall (Existing)	Tan Hall	Valley Life Sciences Building	Warren Hall	Wellman Hall
Tier I																				
Acetonitrile	6.70E+04	1.41E-08	0.00E+00	3.73E-09	4.94E-09	0.00E+00	2.30E-08	2.46E-09	1.89E-08	3.96E-08	1.04E-08	1.32E-08	4.02E-09	0.00E+00	0.00E+00	3.38E-08	1.71E-08	8.10E-10	3.83E-09	0.00E+00
Benzene	1.30E+03	4.84E-09	0.00E+00	2.73E-09	6.36E-08	2.46E-08	2.84E-07	4.23E-08	5.89E-09	4.89E-07	1.29E-07	2.40E-08	2.31E-09	0.00E+00	0.00E+00	8.83E-09	2.11E-07	2.94E-09	1.05E-09	0.00E+00
Carbon tetrachloride	1.90E+03	3.12E-08	0.00E+00	0.00E+00	1.07E-07	3.12E-08	1.60E-08	1.64E-08	2.24E-07	2.75E-08	7.22E-09	8.01E-08	1.22E-08	0.00E+00	0.00E+00	6.12E-09	1.18E-08	9.42E-10	0.00E+00	0.00E+00
Chloroform	1.50E+02	9.02E-06	4.05E-07	2.15E-08	8.95E-06	7.97E-08	2.98E-05	6.87E-07	2.76E-05	5.10E-05	1.34E-05	2.04E-05	2.04E-06	6.13E-09	3.07E-07	1.85E-06	2.20E-05	6.56E-07	1.59E-07	8.28E-08
Dioxane, 1,4-	3.00E+03	2.03E-09	0.00E+00	0.00E+00	3.04E-08	2.03E-09	1.44E-07	1.39E-09	4.69E-09	2.44E-07	6.42E-08	3.09E-09	5.46E-08	0.00E+00	0.00E+00	8.75E-09	1.05E-07	0.00E+00	0.00E+00	1.07E-10
Formaldehyde	9.40E+01	2.78E-06	1.59E-08	3.68E-07	9.18E-09	5.29E-09	1.57E-07	3.49E-07	3.15E-06	7.36E-08	1.94E-08	5.44E-05	5.45E-07	0.00E+00	5.08E-06	5.02E-07	3.18E-08	2.68E-05	5.26E-07	2.64E-09
n-Hexane	1.76E+05	2.91E-10	0.00E+00	4.79E-10	1.85E-09	1.51E-11	5.22E-11	4.66E-10	1.50E-10	8.97E-11	2.36E-11	1.37E-10	8.27E-10	0.00E+00	1.17E-10	4.64E-10	3.87E-11	2.46E-10	3.03E-11	0.00E+00
Hydrazine	1.30E+01	0.00E+00	0.00E+00	0.00E+00	2.98E-08	0.00E+00	1.63E-07	0.00E+00	4.10E-07	2.39E-07	6.29E-08	8.69E-08	4.83E-08	0.00E+00	0.00E+00	4.83E-08	1.03E-07	0.00E+00	0.00E+00	0.00E+00
Hydrogen chloride	2.10E+03	2.19E-07	9.19E-08	3.82E-08	5.04E-08	1.98E-06	7.15E-08	9.42E-07	2.93E-06	1.01E-07	2.67E-08	2.48E-07	2.08E-07	0.00E+00	6.94E-09	6.39E-08	4.37E-08	6.19E-06	1.08E-08	1.37E-08
Isopropyl alcohol	3.20E+03	2.18E-06	2.30E-07	4.52E-07	8.41E-07	1.03E-06	1.56E-07	1.44E-07	1.26E-06	2.34E-07	6.15E-08	4.02E-06	3.85E-07	6.14E-10	3.82E-07	2.23E-07	1.01E-07	2.87E-07	9.73E-08	6.75E-09
Methanol	2.80E+04	4.89E-07	2.71E-08	5.86E-08	1.33E-07	2.00E-08	1.43E-07	2.16E-08	9.33E-08	2.44E-07	6.43E-08	1.01E-07	1.49E-08	8.78E-09	3.42E-10	1.18E-07	1.05E-07	1.61E-08	4.59E-08	2.55E-09
Methylene chloride	1.40E+04	2.58E-08	0.00E+00	4.63E-09	2.74E-07	3.10E-09	1.27E-06	1.48E-09	1.58E-08	2.18E-06	5.72E-07	2.08E-08	9.44E-09	1.62E-09	0.00E+00	1.64E-08	9.38E-07	9.36E-09	0.00E+00	5.90E-11
Tetrachloroethylene (Perc)	2.00E+04	0.00E+00	0.00E+00	5.03E-11	1.74E-10	1.26E-09	8.14E-10	3.27E-10	0.00E+00	1.40E-09	3.68E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.20E-10	6.03E-10	0.00E+00	0.00E+00	0.00E+00
Toulene	3.70E+04	2.46E-09	0.00E+00	1.18E-09	9.66E-09	1.58E-09	3.46E-08	5.74E-09	7.58E-09	5.94E-08	1.56E-08	3.41E-09	2.59E-09	0.00E+00	9.20E-10	1.17E-10	2.56E-08	1.03E-09	0.00E+00	0.00E+00
Trichloroethane (1,1,1-)	6.80E+04	0.00E+00	9.99E-09	0.00E+00	6.54E-10	1.59E-10	5.15E-11	0.00E+00	0.00E+00	8.86E-11	2.33E-11	7.35E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.82E-11	6.12E-12	3.18E-10	0.00E+00
Trichloroethylene	2.69E+05	0.00E+00	2.23E-10	1.77E-10	2.43E-10	1.33E-10	0.00E+00	0.00E+00	1.77E-10	0.00E+00	0.00E+00	8.77E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	2.20E+04	1.47E-09	0.00E+00	2.95E-10	2.22E-09	1.17E-09	7.11E-09	2.87E-09	2.20E-08	3.39E-09	8.93E-10	3.35E-08	1.57E-09	2.46E-11	1.21E-08	2.21E-10	1.46E-09	2.78E-09	3.32E-09	1.23E-10
Tier II																				
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	6.60E+02	0.00E+00	8.81E-09	0.00E+00	3.06E-08	1.47E-09	5.37E-08	0.00E+00	5.87E-09	9.23E-08	2.43E-08	0.00E+00	8.81E-09	0.00E+00	0.00E+00	0.00E+00	3.98E-08	0.00E+00	0.00E+00	0.00E+00
Butyl alcohol, tert-	3.00E+05	2.20E-10	2.13E-11	1.64E-12	7.86E-12	1.94E-10	3.67E-11	2.11E-10	1.73E-07	6.30E-11	1.66E-11	1.23E-11	1.23E-11	0.00E+00	0.00E+00	9.65E-11	2.72E-11	0.00E+00	0.00E+00	0.00E+00
Dimethylformamide	3.00E+04	8.76E-10	0.00E+00	0.00E+00	6.36E-10	5.90E-11	2.97E-09	1.97E-11	6.49E-10	5.10E-09	1.34E-09	8.61E-09	2.07E-10	0.00E+00	0.00E+00	2.56E-10	2.20E-09	0.00E+00	1.18E-09	1.97E-11
Epichlorohydrin	1.30E+03	0.00E+00	0.00E+00	0.00E+00	6.56E-10	0.00E+00	3.06E-09	0.00E+00	0.00E+00	5.26E-09	1.38E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-10	2.27E-09	0.00E+00	0.00E+00	0.00E+00
Ethanol	1.88E+06	1.76E-07	0.00E+00	2.52E-09	5.43E-09	2.01E-09	9.10E-09	1.62E-09	1.38E-08	1.37E-08	3.60E-09	5.32E-08	5.90E-09	2.15E-10	3.44E-09	2.14E-08	5.90E-09	3.79E-07	3.83E-09	4.03E-08
Ethyl acetate	1.48E+06	1.07E-10	0.00E+00	2.60E-12	1.65E-09	0.00E+00	7.68E-09	1.83E-10	1.15E-10	1.32E-08	3.47E-09	9.95E-11	5.15E-11	0.00E+00	0.00E+00	3.00E-11	5.69E-09	2.16E-11	1.04E-11	2.88E-11
Ethyl ether	1.20E+06	7.90E-11	0.00E+00	0.00E+00	1.05E-09	1.21E-10	4.90E-09	1.84E-12	3.62E-11	8.41E-09	2.21E-09	1.07E-10	1.07E-11	9.19E-12	1.93E-11	2.67E-11	3.63E-09	1.05E-11	9.19E-13	1.84E-13
Glutaraldehyde	2.00E+02	3.59E-08	0.00E+00	3.42E-09	2.58E-10	0.00E+00	1.36E-07	0.00E+00	7.26E-07	2.07E-09	5.44E-10	3.57E-07	1.88E-08	0.00E+00	1.13E-07	1.32E-07	8.92E-10	8.54E-09	0.00E+00	0.00E+00
Hydrogen fluoride	2.40E+02	0.00E+00	3.01E-06	0.00E+00	2.00E-08	9.53E-07	2.20E-09	4.50E-09	9.76E-09	3.79E-09	9.96E-10	1.88E-08	0.00E+00	9.01E-09	0.00E+00	0.00E+00	1.63E-09	6.74E-07	0.00E+00	0.00E+00
Methyl bromide	3.90E+03	0.00E+00	0.00E+00	0.00E+00	2.65E-09	0.00E+00	1.24E-08	1.83E-05	0.00E+00	2.12E-08	5.58E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.16E-09	0.00E+00	0.00E+00	0.00E+00
Phosgene	4.00E+00	0.00E+00	0.00E+00	0.00E+00	6.86E-07	0.00E+00	3.20E-06	0.00E+00	0.00E+00	5.50E-06	1.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-06	0.00E+00	0.00E+00	0.00E+00
Pyridine	1.50E+04	1.08E-09	0.00E+00	0.00E+00	2.71E-09	2.64E-10	5.15E-09	1.34E-09	4.10E-09	8.85E-09	2.33E-09	2.33E-09	3.45E-10	0.00E+00	0.00E+00	4.06E-11	3.82E-09	1.34E-09	2.03E-11	0.00E+00
Tetrahydrofuran	5.90E+05	6.09E-12	0.00E+00	4.69E-13	1.03E-09	0.00E+00	4.82E-09	0.00E+00	3.89E-11	8.29E-09	2.18E-09	1.90E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-09	0.00E+00	0.00E+00	4.69E-13
Triethylamine	2.80E+03	1.82E-08	0.00E+00	0.00E+00	8.06E-09	0.00E+00	3.76E-08	0.00E+00	1.84E-08	6.46E-08	1.70E-08	5.02E-09	0.00E+00	0.00E+00	0.00E+00	4.29E-09	2.79E-08	1.05E-09	1.62E-10	6.40E-09
Hydrogen-3 (Tritium)	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Iodine-125	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL		1.50E-05	3.80E-06	9.57E-07	1.13E-05	4.14E-06	3.57E-05	2.05E-05	3.67E-05	6.07E-05	1.60E-05	7.99E-05	3.37E-06	2.64E-08	5.91E-06	3.03E-06	2.62E-05	3.51E-05	8.53E-07	1.56E-07
No. of Stacks		5	1	1	13	1	5	1	4	8	9	7	6	1	1	11	4	4	2	1
Total per stack		3.00E-06	3.80E-06	9.57E-07	8.67E-07	4.14E-06	7.14E-06	2.05E-05	9.18E-06	7.59E-06	1.77E-06	1.14E-05	5.61E-07	2.64E-08	5.91E-06	2.76E-07	6.54E-06	8.77E-06	4.27E-07	1.56E-07

Cancer Risk Inputs for New Laboratories

Chemical	A - Northwest Area	B - Northwest-Center Area	C - Northeast-Center Area	D - Northeast Area	E - Southwest Center Area	F - Southeast-Center Area	G - Southeast-Area	Davis Hall - Additional Labs	Stanley - Additional Labs
Tier I									
Acetonitrile									
Benzene2	7.36E-09	1.49E-09	8.32E-10	4.43E-10	1.18E-09	9.37E-10	2.70E-10	3.67E-09	7.70E-09
Carbon tetrachloride	2.93E-09	5.93E-10	3.31E-10	1.76E-10	4.70E-10	3.73E-10	1.07E-10	1.46E-09	3.06E-09
Chloroform	1.63E-08	3.31E-09	1.84E-09	9.83E-10	2.62E-09	2.08E-09	5.98E-10	8.15E-09	1.71E-08
Dioxane, 1,4-	2.27E-09	4.60E-10	2.57E-10	1.37E-10	3.65E-10	2.89E-10	8.32E-11	1.13E-09	2.37E-09
Formaldehyde2	5.26E-09	1.07E-09	5.94E-10	3.17E-10	8.45E-10	6.70E-10	1.93E-10	2.65E-09	5.50E-09
n-Hexane	----	----	----	----	----	----	----	----	----
Hydrazine	6.55E-09	1.33E-09	7.40E-10	3.94E-10	1.05E-09	8.34E-10	2.40E-10	3.27E-09	6.85E-09
Hydrogen chloride2	----	----	----	----	----	----	----	----	----
Isopropyl alcohol2	----	----	----	----	----	----	----	----	----
Methanol	----	----	----	----	----	----	----	----	----
Methylene chloride2	1.21E-08	2.46E-09	1.37E-09	7.30E-10	1.95E-09	1.54E-09	4.44E-10	6.06E-09	1.27E-08
Tetrachloroethylene (Perc)	6.54E-11	1.33E-11	7.40E-12	3.94E-12	1.05E-11	8.34E-12	2.40E-12	3.27E-11	6.85E-11
Toulene	----	----	----	----	----	----	----	----	----
Trichloroethane (1,1,1-)2	----	----	----	----	----	----	----	----	----
Trichloroethylene	8.81E-11	1.79E-11	9.96E-12	5.31E-12	1.42E-11	1.12E-11	3.23E-12	6.24E-11	9.22E-11
Xylenes	----	----	----	----	----	----	----	----	----
Tier II									
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	----	----	----	----	----	----	----	----	----
Butyl alcohol, tert-	----	----	----	----	----	----	----	----	----
Dimethylformamide	----	----	----	----	----	----	----	----	----
Epichlorohydrin	6.38E-11	1.29E-11	7.21E-12	3.84E-12	1.03E-11	8.13E-12	2.34E-12	3.19E-11	6.68E-11
Ethanol1	----	----	----	----	----	----	----	----	----
Ethyl acetate	----	----	----	----	----	----	----	----	----
Ethyl ether	----	----	----	----	----	----	----	----	----
Glutaraldehyde	----	----	----	----	----	----	----	----	----
Hydrogen fluoride	----	----	----	----	----	----	----	----	----
Methyl bromide	----	----	----	----	----	----	----	----	----
Phosgene	----	----	----	----	----	----	----	----	----
Pyridine	----	----	----	----	----	----	----	----	----
Tetrahydrofuran	----	----	----	----	----	----	----	----	----
Triethylamine	----	----	----	----	----	----	----	----	----
Hydrogen-3 (Tritium)	1.40E-10	2.84E-11	1.58E-11	8.42E-12	2.25E-11	1.78E-11	5.13E-12	6.98E-11	1.46E-10
Iodine-125	3.78E-09	7.66E-10	4.27E-10	2.27E-10	6.07E-10	4.81E-10	1.38E-10	1.88E-09	3.95E-09
Total	**5.30E-08**	**1.08E-08**	**5.99E-09**	**3.19E-09**	**8.52E-09**	**6.75E-09**	**1.94E-09**	**2.65E-08**	**5.55E-08**
No. of Stacks per Building	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**4**	**8**
Cancer Risk per Stack	**5.30E-08**	**1.08E-08**	**5.99E-09**	**3.19E-09**	**8.52E-09**	**6.75E-09**	**1.94E-09**	**6.63E-09**	**6.93E-09**
Cancer Risk x 1,000,000 (model input)	**5.30E-02**	**1.08E-02**	**5.99E-03**	**3.19E-03**	**8.52E-03**	**6.75E-03**	**1.94E-03**	**6.63E-03**	**6.93E-03**

Chronic HI Inputs for New Laboratories

Chemical	A - Northwest Area	B - Northwest-Center Area	C - Northeast-Center Area	D - Northeast Area	E - Southwest Center Area	F - Southeast-Center Area	G - Southeast-Area	Davis Hall - Additional Labs	Stanley - Additional Labs
Tier I									
Acetonitrile	2.40E-05	4.86E-06	2.71E-06	1.44E-06	3.85E-06	3.05E-06	8.79E-07	1.20E-05	2.51E-05
Benzene2	4.23E-06	8.58E-07	4.78E-07	2.55E-07	6.80E-07	5.39E-07	1.55E-07	2.11E-06	4.42E-06
Carbon tetrachloride	1.74E-06	3.53E-07	1.97E-07	1.05E-07	2.80E-07	2.22E-07	6.38E-08	8.69E-07	1.82E-06
Chloroform	1.03E-05	2.08E-06	1.16E-06	6.18E-07	1.65E-06	1.31E-06	3.76E-07	5.12E-06	1.07E-05
Dioxane, 1,4-	9.83E-08	1.99E-08	1.11E-08	5.92E-09	1.58E-08	1.25E-08	3.60E-09	4.90E-08	1.03E-07
Formaldehyde2	2.92E-04	5.92E-05	3.30E-05	1.76E-05	4.70E-05	3.72E-05	1.07E-05	1.47E-04	3.06E-04
n-Hexane	1.30E-08	2.64E-09	1.47E-09	7.83E-10	2.09E-09	1.66E-09	4.77E-10	7.31E-09	1.36E-08
Hydrazine	6.68E-06	1.35E-06	7.55E-07	4.02E-07	1.07E-06	8.51E-07	2.45E-07	3.33E-06	6.99E-06
Hydrogen chloride2	2.50E-04	5.08E-05	2.83E-05	1.51E-05	4.02E-05	3.19E-05	9.18E-06	1.25E-04	2.62E-04
Isopropyl alcohol2	4.07E-07	8.25E-08	4.60E-08	2.45E-08	6.53E-08	5.18E-08	1.49E-08	2.17E-07	4.25E-07
Methanol	3.26E-06	6.60E-07	3.68E-07	1.96E-07	5.23E-07	4.15E-07	1.19E-07	1.63E-06	3.41E-06
Methylene chloride2	3.03E-05	6.14E-06	3.42E-06	1.82E-06	4.87E-06	3.86E-06	1.11E-06	1.51E-05	3.17E-05
Tetrachloroethylene (Perc)	3.17E-07	6.43E-08	3.58E-08	1.91E-08	5.09E-08	4.04E-08	1.16E-08	1.58E-07	3.32E-07
Toulene	2.91E-06	5.90E-07	3.29E-07	1.75E-07	4.67E-07	3.70E-07	1.07E-07	1.45E-06	3.04E-06
Trichloroethane (1,1,1-)2	1.55E-07	3.14E-08	1.75E-08	9.33E-09	2.49E-08	1.97E-08	5.68E-09	7.74E-08	1.62E-07
Trichloroethylene	7.34E-08	1.49E-08	8.30E-09	4.42E-09	1.18E-08	9.35E-09	2.69E-09	5.20E-08	7.68E-08
Xylenes	2.49E-07	5.04E-08	2.81E-08	1.50E-08	4.00E-08	3.17E-08	9.11E-09	1.25E-07	2.60E-07
Tier II									
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	1.51E-05	3.06E-06	1.71E-06	9.09E-07	2.43E-06	1.92E-06	5.54E-07	7.54E-06	1.58E-05
Butyl alcohol, tert-	7.23E-06	1.47E-06	8.17E-07	4.35E-07	1.16E-06	9.20E-07	2.65E-07	3.61E-06	7.56E-06
Dimethylformamide	7.75E-07	1.57E-07	8.76E-08	4.67E-08	1.25E-07	9.87E-08	2.84E-08	3.87E-07	8.11E-07
Epichlorohydrin	9.25E-07	1.88E-07	1.05E-07	5.57E-08	1.49E-07	1.18E-07	3.39E-08	4.62E-07	9.67E-07
Ethanol1	1.94E-05	3.93E-06	2.19E-06	1.17E-06	3.11E-06	2.47E-06	7.10E-07	9.85E-06	2.03E-05
Ethyl acetate	2.33E-06	4.72E-07	2.63E-07	1.40E-07	3.74E-07	2.97E-07	8.54E-08	1.16E-06	2.44E-06
Ethyl ether	5.73E-06	1.16E-06	6.47E-07	3.45E-07	9.21E-07	7.30E-07	2.10E-07	2.86E-06	5.99E-06
Glutaraldehyde	2.75E-04	5.58E-05	3.11E-05	1.66E-05	4.43E-05	3.51E-05	1.01E-05	1.39E-04	2.88E-04
Hydrogen fluoride	3.67E-05	7.44E-06	4.15E-06	2.21E-06	5.90E-06	4.67E-06	1.35E-06	1.83E-05	3.84E-05
Methyl bromide	1.41E-03	2.86E-04	1.60E-04	8.51E-05	2.27E-04	1.80E-04	5.18E-05	7.05E-04	1.48E-03
Phosgene	2.91E-05	5.90E-06	3.29E-06	1.75E-06	4.67E-06	3.70E-06	1.07E-06	1.45E-05	3.04E-05
Pyridine	1.51E-05	3.06E-06	1.70E-06	9.07E-07	2.42E-06	1.92E-06	5.52E-07	7.52E-06	1.58E-05
Tetrahydrofuran	6.44E-06	1.31E-06	7.28E-07	3.88E-07	1.04E-06	8.21E-07	2.36E-07	3.22E-06	6.74E-06
Triethylamine	3.69E-07	7.48E-08	4.17E-08	2.22E-08	5.93E-08	4.70E-08	1.35E-08	1.84E-07	3.86E-07
Hydrogen-3 (Tritium)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Iodine-125	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total	**2.43E-03**	**4.93E-04**	**2.75E-04**	**1.46E-04**	**3.91E-04**	**3.10E-04**	**8.91E-05**	**1.22E-03**	**2.54E-03**
No of Stacks	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**4**	**8**
Input per stack	**2.43E-03**	**4.93E-04**	**2.75E-04**	**1.46E-04**	**3.91E-04**	**3.10E-04**	**8.91E-05**	**3.04E-04**	**3.18E-04**

Acute HI Inputs for New Laboratories

Chemical	A - Northwest Area	B - Northwest-Center Area	C - Northeast-Center Area	D - Northeast Area	E - Southwest Center Area	F - Southeast-Center Area	G - Southeast-Area	Davis Hall - Additional Labs	Stanley - Additional Labs
Tier I									
Acetonitrile	1.10E-07	2.24E-08	1.25E-08	6.64E-09	1.77E-08	1.41E-08	4.04E-09	5.51E-08	1.15E-07
Benzene2	1.01E-06	2.05E-07	1.14E-07	6.09E-08	1.63E-07	1.29E-07	3.71E-08	5.05E-07	1.06E-06
Carbon tetrachloride	1.90E-07	3.85E-08	2.15E-08	1.14E-08	3.05E-08	2.42E-08	6.96E-09	9.48E-08	1.99E-07
Chloroform	1.06E-04	2.16E-05	1.20E-05	6.40E-06	1.71E-05	1.35E-05	3.90E-06	5.31E-05	1.11E-04
Dioxane, 1,4-	5.09E-07	1.03E-07	5.75E-08	3.07E-08	8.18E-08	6.48E-08	1.87E-08	2.54E-07	5.33E-07
Formaldehyde2	4.83E-05	9.79E-06	5.46E-06	2.91E-06	7.76E-06	6.15E-06	1.77E-06	2.44E-05	5.05E-05
n-Hexane	2.68E-09	5.43E-10	3.03E-10	1.61E-10	4.31E-10	3.41E-10	9.82E-11	1.51E-09	2.80E-09
Hydrazine	5.32E-07	1.08E-07	6.02E-08	3.21E-08	8.56E-08	6.78E-08	1.95E-08	2.66E-07	5.57E-07
Hydrogen chloride2	5.56E-06	1.13E-06	6.28E-07	3.35E-07	8.93E-07	7.08E-07	2.04E-07	2.78E-06	5.81E-06
Isopropyl alcohol2	4.61E-06	9.34E-07	5.21E-07	2.77E-07	7.40E-07	5.87E-07	1.69E-07	2.46E-06	4.82E-06
Methanol	2.41E-06	4.89E-07	2.72E-07	1.45E-07	3.87E-07	3.07E-07	8.83E-08	1.21E-06	2.52E-06
Methylene chloride2	4.48E-06	9.09E-07	5.07E-07	2.70E-07	7.21E-07	5.71E-07	1.64E-07	2.24E-06	4.69E-06
Tetrachloroethylene (Perc)	2.87E-09	5.83E-10	3.25E-10	1.73E-10	4.62E-10	3.66E-10	1.05E-10	1.43E-09	3.01E-09
Toulene	1.22E-07	2.48E-08	1.38E-08	7.35E-09	1.96E-08	1.56E-08	4.48E-09	6.10E-08	1.28E-07
Trichloroethane (1,1,1-)2	1.18E-08	2.39E-09	1.33E-09	7.11E-10	1.90E-09	1.50E-09	4.33E-10	5.89E-09	1.24E-08
Trichloroethylene	8.48E-10	1.72E-10	9.59E-11	5.11E-11	1.36E-10	1.08E-10	3.11E-11	6.01E-10	8.88E-10
Xylenes	4.10E-08	8.31E-09	4.63E-09	2.47E-09	6.59E-09	5.22E-09	1.50E-09	2.06E-08	4.29E-08
Tier II									
Bromine (bromine gas, hydrogen bromide, bromide pentafluoride, other inorganic compounds)	1.90E-07	3.85E-08	2.14E-08	1.14E-08	3.05E-08	2.42E-08	6.95E-09	9.47E-08	1.98E-07
Butyl alcohol, tert-	8.91E-08	1.81E-08	1.01E-08	5.36E-09	1.43E-08	1.13E-08	3.27E-09	4.45E-08	9.32E-08
Dimethylformamide	1.07E-08	2.17E-09	1.21E-09	6.45E-10	1.72E-09	1.36E-09	3.92E-10	5.34E-09	1.12E-08
Epichlorohydrin	1.11E-08	2.24E-09	1.25E-09	6.66E-10	1.78E-09	1.41E-09	4.05E-10	5.52E-09	1.16E-08
Ethanol1	2.39E-07	4.84E-08	2.70E-08	1.44E-08	3.84E-08	3.04E-08	8.76E-09	1.21E-07	2.50E-07
Ethyl acetate	2.71E-08	5.50E-09	3.07E-09	1.63E-09	4.36E-09	3.46E-09	9.95E-10	1.35E-08	2.84E-08
Ethyl ether	1.73E-08	3.51E-09	1.96E-09	1.04E-09	2.78E-09	2.20E-09	6.34E-10	8.64E-09	1.81E-08
Glutaraldehyde	7.13E-07	1.45E-07	8.06E-08	4.29E-08	1.15E-07	9.08E-08	2.61E-08	3.59E-07	7.46E-07
Hydrogen fluoride	4.36E-06	8.83E-07	4.92E-07	2.62E-07	7.00E-07	5.55E-07	1.60E-07	2.17E-06	4.56E-06
Methyl bromide	9.38E-06	1.90E-06	1.06E-06	5.65E-07	1.51E-06	1.19E-06	3.44E-07	4.68E-06	9.81E-06
Phosgene	1.13E-05	2.29E-06	1.28E-06	6.80E-07	1.82E-06	1.44E-06	4.14E-07	5.64E-06	1.18E-05
Pyridine	1.82E-08	3.69E-09	2.06E-09	1.10E-09	2.93E-09	2.32E-09	6.68E-10	9.09E-09	1.91E-08
Tetrahydrofuran	1.70E-08	3.45E-09	1.92E-09	1.03E-09	2.74E-09	2.17E-09	6.24E-10	8.50E-09	1.78E-08
Triethylamine	1.36E-07	2.77E-08	1.54E-08	8.21E-09	2.19E-08	1.74E-08	5.00E-09	6.81E-08	1.43E-07
Hydrogen-3 (Tritium)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Iodine-125	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL	**2.01E-04**	**4.07E-05**	**2.27E-05**	**1.21E-05**	**3.23E-05**	**2.56E-05**	**7.36E-06**	**1.01E-04**	**2.10E-04**
No. of Stacks	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**4**	**8**
Total per stack	**2.01E-04**	**4.07E-05**	**2.27E-05**	**1.21E-05**	**3.23E-05**	**2.56E-05**	**7.36E-06**	**2.52E-05**	**2.63E-05**

ANNUAL EMISSIONS RATES FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING AND HAZARDOUS MATERIALS FACILITY (Existing)

Chemical	Paint Use (g/s)	Printing (g/s)	Hazardous Haterials Facility (g/s)
Tier I			
Carbon tetrachloride	----	----	2.44E-05
Chloroform	----	----	3.62E-05
Dioxane, 1,4-	----	----	----
Formaldehyde	4.57E-08	----	8.96E-08
n-Hexane	----	3.80E-04	----
Isopropyl alcohol	2.70E-05	9.28E-03	----
Methanol	1.01E-04	----	----
Methylene chloride	8.09E-04	0.00E+00	6.29E-05
Toulene	1.28E-04	2.89E-04	----
Trichloroethylene	1.28E-04	1.29E-04	
Xylenes	6.16E-05	1.35E-02	----
Tier II			
Butyl alcohol, tert-	2.42E-06	----	----
Hydrogen fluoride	----	1.49E-05	----
Naphthalene	----	4.31E-05	----
Phenol	----	----	7.71E-08

ANNUAL EMISSIONS RATES FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING AND HAZARDOUS MATERIALS FACILITY (LRDP)

Chemical	Paint Use[1] (g/s)	Printing[1] (g/s)	Hazardous Haterials Facility[2] (g/s)
Tier I			
Carbon tetrachloride	----	----	4.26E-05
Chloroform	----	----	6.33E-05
Dioxane, 1,4-	----	----	----
Formaldehyde	5.48E-08	----	1.57E-07
n-Hexane	----	4.56E-04	----
Isopropyl alcohol	3.24E-05	1.11E-02	----
Methanol	1.21E-04	----	----
Methylene chloride	9.71E-04	0.00E+00	1.10E-04
Toulene	1.53E-04	3.47E-04	----
Trichloroethylene	1.53E-04	1.55E-04	----
Xylenes	7.39E-05	1.62E-02	----
Tier II			
Butyl alcohol, tert-	2.90E-06	----	----
Hydrogen fluoride	----	1.79E-05	----
Naphthalene	----	5.18E-05	----
Phenol	----	----	1.35E-07

[1] Future emissions assumed to be 20 percent higher than current emissions

[2] Future emissions assumed to be 75 percent higher than current emissions

HOURLY EMISSIONS RATES FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING AND HAZARDOUS MATERIALS FACILITY[1]

Chemical	Paint Use (g/s)	Printing (g/s)	Hazardous Haterials Facility (g/s)
Tier I			
Carbon tetrachloride	----	----	1.37E-03
Chloroform	----	----	2.03E-03
Formaldehyde	1.92E-07	----	5.03E-06
n-Hexane	----	1.60E-03	----
Isopropyl alcohol	1.14E-04	3.91E-02	----
Methanol	4.25E-04	----	----
Methylene chloride	3.41E-03	0.00E+00	3.53E-03
Toulene	5.38E-04	1.22E-03	----
Trichloroethylene	5.38E-04	5.45E-04	----
Xylenes	2.59E-04	5.68E-02	----
Tier II			
Butyl alcohol, tert-	1.02E-05		
Ethylene glycol butyl ether	6.18E-04	3.38E-03	
Hydrogen fluoride		6.28E-05	
Naphthalene		1.82E-04	
Phenol			4.33E-06

[1] Hourly emissions assumed operations of 3 hours per week, 52 weeks per year.

HOURLY EMISSIONS RATES FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING AND HAZARDOUS MATERIALS FACILITY

Chemical	Paint Use[1] (g/s)	Printing[1] (g/s)	Hazardous Haterials Facility[2] (g/s)
Tier I			
Carbon tetrachloride	----	----	2.39E-03
Chloroform	----	----	3.55E-03
Formaldehyde	2.31E-07	----	8.80E-06
n-Hexane	----	1.92E-03	----
Isopropyl alcohol	1.37E-04	4.69E-02	
Methanol	5.11E-04	----	----
Methylene chloride	4.09E-03	0.00E+00	6.18E-03
Toulene	6.46E-04	1.46E-03	
Trichloroethylene	6.46E-04	6.54E-04	----
Xylenes	3.11E-04	6.81E-02	----
Tier II			
Butyl alcohol, tert-	1.22E-05	----	----
Ethylene glycol butyl ether	7.42E-04	4.06E-03	----
Hydrogen fluoride	----	7.54E-05	----
Naphthalene	----	2.18E-04	----
Phenol			7.57E-06

[1] Future emissions assumed to be 20 percent higher than current emissions

[2] Future emissions assumed to be 75 percent higher than current emissions

CANCER RISK MODELING INPUTS FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING AND HAZARDOUS MATERIALS FACILITY (Existing Conditions)

Chemical	Unit Risk Factor (µg/m3 -1)	Paint Use	Printing	Hazardous Materials Facility
Tier I				
Carbon tetrachloride	4.20E-05	----	----	1.02E-09
Chloroform	5.30E-06	----	----	1.92E-10
Dioxane, 1,4-	7.70E-06	----	----	
Formaldehyde	6.00E-06	2.74E-13	----	5.37E-13
n-Hexane	----	----	----	----
Isopropyl alcohol	----	----	----	----
Methanol	----	----	----	----
Methylene chloride	1.00E-06	8.09E-10	----	6.29E-11
Toulene	----	----	----	----
Trichloroethylene	2.00E-06	2.56E-10	2.59E-10	----
Xylenes	----	----	----	----
Tier II				
Butyl alcohol, tert-	----	----	----	----
Ethylene glycol butyl ether	----	----	----	----
Hydrogen fluoride	----	----	----	----
Naphthalene	----	----	----	----
Phenol	----	----	----	----
Total		1.06E-09	2.59E-10	1.28E-09
No. of Sources		4	3	1
Per Stack		2.66E-10	8.63E-11	1.28E-09
Cancer Risk x 1,000,000 (model input)		2.66E-04	8.63E-05	1.28E-03

CANCER RISK MODELING INPUTS FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING AND HAZARDOUS MATERIALS FACILITY (Future LRDP)

Chemical	Unit Risk Factor (µg/m3 -1)	Paint Use	Printing	Hazardous Materials Facility
Tier I				
Carbon tetrachloride	4.20E-05	----	----	1.79E-09
Chloroform	5.30E-06	----	----	3.35E-10
Dioxane, 1,4-	7.70E-06	----	----	
Formaldehyde	6.00E-06	3.29E-13	----	9.40E-13
n-Hexane	----	----	----	----
Isopropyl alcohol	----	----	----	----
Methanol	----	----	----	----
Methylene chloride	1.00E-06	9.71E-10	----	1.10E-10
Toulene	----	----	----	----
Trichloroethylene	2.00E-06	3.07E-10	3.11E-10	----
Xylenes	----	----	----	----
Tier II				
Butyl alcohol, tert-	----	----	----	----
Ethylene glycol butyl ether	----	----	----	----
Hydrogen fluoride	----	----	----	----
Naphthalene	----	----	----	----
Phenol	----	----	----	----
Total		1.28E-09	3.11E-10	2.24E-09
No. of Sources		4	3	1
Per Stack		3.19E-10	1.04E-10	2.24E-09
Cancer Risk x 1,000,000 (model input)		3.19E-04	1.04E-04	2.24E-03

CHRONIC NON-CANCER MODELING INPUTS FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING UNDER (Existing Conditions)

Chemical	Acceptable Exposure Level (µg/m3)	Paint Use	Printing	Hazardous Materials Facility
Tier I				
Carbon tetrachloride	4.00E+01	----	----	6.09E-07
Chloroform	3.00E+02	----	----	1.21E-07
Formaldehyde	3.00E+00	1.52E-08	----	2.99E-08
n-Hexane	7.00E+03		5.42E-08	----
Isopropyl alcohol	7.00E+03	3.86E-09	1.33E-06	----
Methanol	4.00E+03	2.53E-08		----
Methylene chloride	4.00E+02	2.02E-06	0.00E+00	1.57E-07
Toulene	3.00E+02	4.26E-07	9.64E-07	----
Trichloroethylene	6.00E+02	2.13E-07	2.16E-07	----
Xylenes	7.00E+02	8.80E-08	1.93E-05	----
Tier II				
Butyl alcohol, tert-	7.14E+02	----	----	----
Ethylene glycol butyl ether	2.00E+02	7.34E-07	4.01E-06	----
Hydrogen fluoride	5.50E+00	----	----	----
Naphthalene	9.00E+00	----	4.79E-06	----
Phenol	2.00E+02	----	----	3.85E-10
Total		3.53E-06	3.06E-05	9.17E-07
No. of Sources		4	3	1
Per Stack		8.82E-07	1.02E-05	9.17E-07

CHRONIC NON-CANCER MODELING INPUTS FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING (Future LRDP)

Chemical	Acceptable Exposure Level (µg/m3)	Paint Use	Printing	Hazardous Materials Facility
Tier I				
Carbon tetrachloride	4.00E+01			1.07E-06
Chloroform	3.00E+02			2.11E-07
Formaldehyde	3.00E+00	1.83E-08		5.22E-08
n-Hexane	7.00E+03		6.51E-08	
Isopropyl alcohol	7.00E+03	4.63E-09	1.59E-06	
Methanol	4.00E+03	3.03E-08		
Methylene chloride	4.00E+02	2.43E-06	0.00E+00	2.75E-07
Toulene	3.00E+02	5.11E-07	1.16E-06	
Trichloroethylene	6.00E+02	2.56E-07	2.59E-07	
Xylenes	7.00E+02	1.06E-07	2.31E-05	
Tier II				
Butyl alcohol, tert-	7.14E+02	----	----	----
Ethylene glycol butyl ether	2.00E+02	8.80E-07	4.82E-06	----
Hydrogen fluoride	5.50E+00	----	----	----
Naphthalene	9.00E+00	----	5.75E-06	----
Phenol	2.00E+02	----	----	6.74E-10
Total		4.23E-06	3.68E-05	1.61E-06
No. of Sources		4	3	1
Per Stack		1.06E-06	1.23E-05	1.61E-06

ACUTE NON-CANCER MODELING INPUTS FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING UNDER (Existing Conditions)

Chemical	Acceptable Exposure Level (µg/m3)	Paint Use	Printing	Hazardous Materials Facility
Tier I				
Carbon tetrachloride	1.90E+03			7.20E-07
Chloroform	1.50E+02			1.35E-05
Formaldehyde	9.40E+01	2.05E-09	0.00E+00	5.35E-08
n-Hexane	1.76E+05		N/A	
Isopropyl alcohol	3.20E+03	3.56E-08	1.22E-05	
Methanol	2.80E+04	1.52E-08	0.00E+00	
Methylene chloride	1.40E+04	2.43E-07	0.00E+00	2.52E-07
Toulene	3.70E+04	1.45E-08	3.29E-08	
Trichloroethylene	2.69E+05	N/A	N/A	
Xylenes	2.20E+04	1.18E-08	2.58E-06	
Tier II				
Butyl alcohol, tert-	3.00E+05	----	----	----
Ethylene glycol butyl ether	----	----	----	----
Hydrogen fluoride	2.40E+02	----	2.62E-07	----
Naphthalene	----	----	N/A	----
Phenol	5.80E+03	----	----	7.46E-10
TOTAL		**3.22E-07**	**1.51E-05**	**1.46E-05**
No. of Stacks		**4**	**3**	**1**
Total per stack		**8.06E-08**	**5.03E-06**	**1.46E-05**

ACUTE NON-CANCER MODELING INPUTS FOR CENTRAL CAMPUS PAINT USE AND LITHOGRAPHIC PRINTING (Future LRDP)

Chemical	Acceptable Exposure Level (µg/m3)	Paint Use	Printing	Hazardous Materials Facility
Tier I				
Carbon tetrachloride	1.90E+03			1.26E-06
Chloroform	1.50E+02			2.37E-05
Formaldehyde	9.40E+01	2.45E-09	0.00E+00	9.36E-08
n-Hexane	1.76E+05		N/A	
Isopropyl alcohol	3.20E+03	4.27E-08	1.47E-05	
Methanol	2.80E+04	1.82E-08	0.00E+00	
Methylene chloride	1.40E+04	2.92E-07	0.00E+00	4.42E-07
Toulene	3.70E+04	1.75E-08	3.95E-08	
Trichloroethylene	2.69E+05	N/A	N/A	
Xylenes	2.20E+04	1.42E-08	3.10E-06	
Tier II				
Butyl alcohol, tert-	3.00E+05	----	----	----
Ethylene glycol butyl ether	----	----	----	----
Hydrogen fluoride	2.40E+02	----	3.14E-07	----
Naphthalene	----	----	N/A	----
Phenol	5.80E+03	----	----	1.31E-09
TOTAL		**3.87E-07**	**1.81E-05**	**2.55E-05**
No. of Stacks		**4**	**3**	**1**
Total per stack		**9.67E-08**	**6.04E-06**	**2.55E-05**

AIR TOXIC CONTAMINANT EMISSION FACTORS FOR COMBUSTION EMISSION CALCULATIONS

| | Turbines | | Boilers |
| | Natural Gas[1] | Diesel[2] | Natual Gas[3] |
Pollutant	lb/MMcf	lb/MMBtu	lb/MMcf
Acenaphthene	----	----	1.80E-06
Acenaphthylene	----	----	1.80E-06
Acetaldehyde	4.00E-02	----	----
Acrrolein	6.40E-03	----	----
Anthracene	----	----	2.40E-06
Benz(a)anthracene	----	----	1.80E-06
Benzene	1.20E-02	----	2.10E-03
Benzo(b/k)fluoranthene	----	----	3.60E-06
Benzo(a)pyrene	----	----	1.20E-06
Benzo(g,h,i)perylene	----	----	1.20E-06
1,3 Butadiene	4.30E-04	----	----
Chrysene	----	----	1.80E-06
Dibenzo(a,h)anthracene	----	----	1.20E-06
Dichlorobenzene	----	----	1.20E-03
7,12-Dimethylbenz(a)anthracene	----	----	1.60E-05
Ethylbenzene	3.20E-02	----	----
Fluoranthene	----	----	3.00E-06
Fluorene	----	----	2.80E-06
Formaldehyde	7.10E-01	----	7.50E-02
Hexane	----	----	1.80E+00
Indeno(1,2,3-cd)pyrene	----	----	1.80E-06
2-Methylnaphthalene	----	----	2.40E-05
3-Methylchloroanthrene	----	----	1.80E-06
Naphthalene	1.30E-03	----	6.10E-04
PAHs[4]	9.00E-04	----	----
Pentane[5]	----	----	**2.60E+00**
Phenanthrene	----	----	1.70E-05
Propylene Oxide	2.90E-02	----	----
Pyrene	----	----	5.00E-06
Toluene	1.30E-01	----	3.40E-03
Xylenes	6.40E-02	----	----
Metals			
Arsenic	2.00E-04	----	2.00E-04
Barium[5]	**4.40E-03**	----	**4.40E-03**
Beryllium	1.20E-05	----	1.20E-05
Cadmium	1.10E-03	----	1.10E-03
Chromium	1.40E-03	----	1.40E-03
Cobalt	8.40E-05	----	8.40E-05
Copper	8.50E-04	----	8.50E-04
Lead	5.00E-04	----	5.00E-04
Manganese	3.80E-04	----	3.80E-04
Mercury	2.60E-04	----	2.60E-04
Molybdenum[5]	**1.10E-03**	----	**1.10E-03**
Nickel	2.10E-03	----	2.10E-03
Selenium	2.40E-05	----	2.40E-05
Vanadium	2.30E-03	----	2.30E-03
Zinc	2.90E-02	----	2.90E-03
Diesel Particulate	----	1.20E-02	----

[1] Emission factors from Table 3.1-3 (AP-42) AND Table 1.4-4 for metals.

[2] Emission factor obtained from Table 3.1-2a of AP-42.

[3] Emission factors from Table 1.4-3 and 1.4-4 of AP-42.

[4] Emission factor is based on total PAHs minus naphthalene.

[5] There are no toxicity factors for this chemical.

UC BERKELEY TOXIC AIR EMISSIONS FROM COMBUSTION SOURCES - ANNUAL AVERAGE (EXISTING CONDITIONS)

Pollutant	Turbines Natural Gas lb/hr	Turbines Natural Gas g/s	Turbines Diesel lb/hr	Turbines Diesel g/s	Boiler #2 Natural Gas lb/hr	Boiler #2 Natural Gas g/s	Boiler #3 Natural Gas lb/hr	Boiler #3 Natural Gas g/s	Boiler #4 Natural Gas lb/hr	Boiler #4 Natural Gas g/s
Actaldehyde	1.06E-04	1.335E-05	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	1.58E-03	1.988E-04	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzene	2.96E-03	3.727E-04	N/A	N/A	8.81E-06	1.11E-06	3.37E-05	4.25E-06	4.07E-05	5.13E-06
1,3 Butadiene	1.06E-04	1.335E-05	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	0.00E+00	0.000E+00	N/A	N/A	5.03E-06	6.34E-07	1.93E-05	2.43E-06	2.33E-05	2.93E-06
Ethylbenzene	7.89E-03	9.938E-04	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fomaldehyde	1.75E-01	2.205E-02	N/A	N/A	3.15E-04	3.96E-05	1.20E-03	1.52E-04	1.45E-03	1.83E-04
Hexane3	0.00E+00	0.000E+00	N/A	N/A	7.55E-03	9.51E-04	2.89E-02	3.64E-03	3.49E-02	4.40E-03
Naphthalene	3.20E-04	4.037E-05	N/A	N/A	2.56E-06	3.22E-07	9.80E-06	1.23E-06	1.18E-05	1.49E-06
PAHs (BaP Equivalents)	2.22E-04	2.795E-05	N/A	N/A	4.39E-06	5.53E-07	1.68E-05	2.12E-06	2.03E-05	2.55E-06
PAHs (Pyrene Equivalents)	0.00E+00	0.00E+00	N/A	N/A	2.47E-07	3.12E-08	9.48E-07	1.19E-07	1.14E-06	1.44E-07
Proylene Oxide	3.20E-02	4.037E-03	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	3.20E-02	4.037E-03	N/A	N/A	1.43E-05	1.80E-06	5.46E-05	6.88E-06	6.59E-05	8.31E-06
Xylenes	1.58E-02	1.988E-03	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulates										
Arsenic	4.93E-05	6.211E-06	N/A	N/A	8.39E-07	1.06E-07	3.21E-06	4.05E-07	3.88E-06	4.89E-07
Beryllium	2.96E-06	3.727E-07	N/A	N/A	5.03E-08	6.34E-09	1.93E-07	2.43E-08	2.33E-07	2.93E-08
Cadmium	2.71E-04	3.416E-05	N/A	N/A	4.61E-06	5.81E-07	1.77E-05	2.23E-06	2.13E-05	2.69E-06
Chromium	3.45E-04	4.348E-05	N/A	N/A	5.87E-06	7.40E-07	2.25E-05	2.83E-06	2.71E-05	3.42E-06
Cobalt	2.07E-05	2.609E-06	N/A	N/A	3.52E-07	4.44E-08	1.35E-06	1.70E-07	1.63E-06	2.05E-07
Copper	2.10E-04	2.640E-05	N/A	N/A	3.56E-06	4.49E-07	1.37E-05	1.72E-06	1.65E-05	2.08E-06
Lead	1.23E-04	1.553E-05	N/A	N/A	2.10E-06	2.64E-07	8.03E-06	1.01E-06	9.69E-06	1.22E-06
Manganese	9.37E-05	1.180E-05	N/A	N/A	1.59E-06	2.01E-07	6.10E-06	7.69E-07	7.37E-06	9.28E-07
Mercury	6.41E-05	8.075E-06	N/A	N/A	1.09E-06	1.37E-07	4.18E-06	5.26E-07	5.04E-06	6.35E-07
Nickel	5.18E-04	6.522E-05	N/A	N/A	8.81E-06	1.11E-06	3.37E-05	4.25E-06	4.07E-05	5.13E-06
Selenium	5.92E-06	7.453E-07	N/A	N/A	1.01E-07	1.27E-08	3.85E-07	4.86E-08	4.65E-07	5.86E-08
Vanadium	5.67E-04	7.143E-05	N/A	N/A	9.65E-06	1.22E-06	3.69E-05	4.65E-06	4.46E-05	5.62E-06
Zinc	7.15E-03	9.006E-04	N/A	N/A	1.22E-05	1.53E-06	4.66E-05	5.87E-06	5.62E-05	7.08E-06
Diesel Particulate	N/A	N/A	2.40E-03	3.02E-04	N/A	N/A	N/A	N/A	N/A	N/A

TURBINE + Catalytic Afterburner						BOILER #2 Natural Gas	BOILER #3 Natural Gas	BOILER #4 Natural Gas
Natural Gas Annual			Fuel Oil Annual			Annual		
MMBtu/hr (HHV):	246.4775		Gallons/hr	1.428	1.428			
Btu/scf (HHV):	1000		Btu/gal	140,000		MMscf/hr: 0.00419	0.01606	0.01939
MMscf/hr:	0.24648		MMBtu/hr:	0.200				

UC BERKELEY TOXIC AIR EMISSIONS FROM COMBUSTION SOURCES - MAXIMUM HOURLY (EXISTING CONDITIONS)

Pollutant	Turbines Natural Gas lb/hr	Turbines Natural Gas g/s	Turbines Diesel lb/hr	Turbines Diesel g/s	Boiler #2 Natural Gas lb/hr	Boiler #2 Natural Gas g/s	Boiler #3 Natural Gas lb/hr	Boiler #3 Natural Gas g/s	Boiler #4 Natural Gas lb/hr	Boiler #4 Natural Gas g/s
Actaldehyde	1.41E-04	1.777E-05	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	2.10E-03	2.645E-04	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzene	3.94E-03	4.959E-04	N/A	N/A	2.88E-04	3.63E-05	2.84E-04	3.57E-05	2.84E-04	3.57E-05
1,3 Butadiene	1.41E-04	1.777E-05	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	0.00E+00	0.000E+00	N/A	N/A	1.64E-04	2.07E-05	1.62E-04	2.04E-05	1.62E-04	2.04E-05
Ethylbenzene	1.05E-02	1.322E-03	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fomaldehyde	2.33E-01	2.934E-02	N/A	N/A	1.03E-02	1.29E-03	1.01E-02	1.28E-03	1.01E-02	1.28E-03
Hexane3	0.00E+00	0.000E+00	N/A	N/A	2.47E-01	3.11E-02	2.43E-01	3.06E-02	2.43E-01	3.06E-02
Naphthalene	4.26E-04	5.373E-05	N/A	N/A	8.36E-05	1.05E-05	8.24E-05	1.04E-05	8.24E-05	1.04E-05
PAHs (BaP Equivalents)	2.95E-04	3.720E-05	N/A	N/A	1.43E-04	1.81E-05	1.41E-04	1.78E-05	1.41E-04	1.78E-05
PAHs (Pyrene Equivalents)	0.00E+00	0.00E+00	N/A	N/A	8.08E-06	1.02E-06	7.97E-06	1.00E-06	7.97E-06	1.00E-06
Proylene Oxide	0.00E+00	0.000E+00	N/A	N/A	6.85E-07	8.63E-08	6.75E-07	8.51E-08	6.75E-07	8.51E-08
Toluene	4.26E-02	5.373E-03	N/A	N/A	4.66E-04	5.87E-05	4.59E-04	5.78E-05	4.59E-04	5.78E-05
Xylenes	2.10E-02	2.645E-03	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulates										
Arsenic	6.56E-05	8.266E-06	N/A	N/A	2.74E-05	3.45E-06	2.70E-05	3.40E-06	2.70E-05	3.40E-06
Beryllium	3.94E-06	4.959E-07	N/A	N/A	1.64E-06	2.07E-07	1.62E-06	2.04E-07	1.62E-06	2.04E-07
Cadmium	3.61E-04	4.546E-05	N/A	N/A	1.51E-04	1.90E-05	1.49E-04	1.87E-05	1.49E-04	1.87E-05
Chromium	4.59E-04	5.786E-05	N/A	N/A	1.92E-04	2.42E-05	1.89E-04	2.38E-05	1.89E-04	2.38E-05
Cobalt	2.76E-05	3.472E-06	N/A	N/A	1.15E-05	1.45E-06	1.13E-05	1.43E-06	1.13E-05	1.43E-06
Copper	2.79E-04	3.513E-05	N/A	N/A	1.16E-04	1.47E-05	1.15E-04	1.45E-05	1.15E-04	1.45E-05
Lead	1.64E-04	2.066E-05	N/A	N/A	6.85E-05	8.63E-06	6.75E-05	8.51E-06	6.75E-05	8.51E-06
Manganese	1.25E-04	1.570E-05	N/A	N/A	5.21E-05	6.56E-06	5.13E-05	6.46E-06	5.13E-05	6.46E-06
Mercury	8.53E-05	1.075E-05	N/A	N/A	3.56E-05	4.49E-06	3.51E-05	4.42E-06	3.51E-05	4.42E-06
Nickel	6.89E-04	8.679E-05	N/A	N/A	2.88E-04	3.63E-05	2.84E-04	3.57E-05	2.84E-04	3.57E-05
Selenium	7.87E-06	9.919E-07	N/A	N/A	3.29E-06	4.14E-07	3.24E-06	4.08E-07	3.24E-06	4.08E-07
Vanadium	7.54E-04	9.505E-05	N/A	N/A	3.15E-04	3.97E-05	3.11E-04	3.91E-05	3.11E-04	3.91E-05
Zinc	9.51E-03	1.199E-03	N/A	N/A	3.97E-04	5.01E-05	3.92E-04	4.93E-05	3.92E-04	4.93E-05
Diesel Particulate	N/A	N/A	2.928E+00	3.69E-01	N/A	N/A	N/A	N/A	N/A	N/A

TURBINE + Catalytic Afterburner					BOILER #2 Natural Gas	BOILER #3 Natural Gas	BOILER #4 Natural Gas
Natural Gas Maximum Hourly		Fuel Oil Maximum Hourly		Maximum Hourly			
MMBtu/hr (HHV):	328.0000	Gallons/hr	1,742.857	MMBtu/hr (HHV):	137.0000	135.0000	135.0000
Btu/scf (HHV):	1000	Btu/gal	140,000	Btu/scf (HHV):	1000	1000	1000
MMscf/hr:	0.32800	MMBtu/hr:	244.000	MMscf/hr:	0.13700	0.13500	0.13500

CANCER RISK INPUTS FROM COMBUSTION SOURCES (EXISTING CONDITIONS)

Chemical	Unit Risk Factor	Tubine Natural Gas	Diesel	Boiler #2	Boiler #3	Boiler #4
Actaldehyde	2.7E-06	3.61E-11	-----	-----	-----	-----
Acrolein	N/A	-----	-----	-----	-----	-----
Benzene	2.9E-05	1.08E-08	-----	3.22E-11	1.23E-10	1.49E-10
1,3 Butadiene	1.70E-04	2.27E-09	-----	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	1.10E-05	-----	-----	6.97E-12	2.67E-11	3.22E-11
Ethylbenzene	N/A	-----	-----	-----	-----	-----
Fomaldehyde	6.00E-06	1.32E-07	-----	2.38E-10	9.11E-10	1.10E-09
Hexane3	N/A	-----	-----	-----	-----	-----
2-Methylnaphthalene	N/A	-----	-----	-----	-----	-----
Naphthalene	N/A	-----	-----	-----	-----	-----
PAHs (BaP Equivalents)	1.10E-03	3.07E-08	-----	3.43E-11	1.31E-10	1.59E-10
Propylene Oxide	3.70E-06	1.49E-08	-----	-----	-----	-----
Toluene	N/A	-----	-----	-----	-----	-----
Xylenes	N/A	-----	-----	-----	-----	-----
Particulates						
Arsenic	3.30E-03	2.05E-08	-----	3.49E-10	1.34E-09	1.61E-09
Beryllium	2.40E-03	8.94E-10	-----	1.52E-11	5.83E-11	7.03E-11
Cadmium	4.20E-03	1.43E-07	-----	2.44E-09	9.35E-09	1.13E-08
Chromium	1.20E-02	5.22E-07	-----	8.88E-09	3.40E-08	4.10E-08
Cobalt	N/A	-----	-----	-----	-----	-----
Copper	N/A	-----	-----	-----	-----	-----
Lead	1.20E-05	1.86E-10	-----	3.17E-12	1.21E-11	1.47E-11
Manganese	N/A	-----	-----	-----	-----	-----
Mercury	N/A	-----	-----	-----	-----	-----
Nickel	2.60E-04	1.70E-08	-----	2.88E-10	1.10E-09	1.33E-09
Selenium	N/A	-----	-----	-----	-----	-----
Vanadium	N/A	-----	-----	-----	-----	-----
Zinc	N/A	-----	-----	-----	-----	-----
Diesel Particulates	3.00E-04	-----	9.07E-08	-----	-----	-----
Total		**8.87E-07**	**9.07E-08**	**1.23E-08**	**4.70E-08**	**5.68E-08**
Total x 1000000		**0.887**	**0.09069**	**0.01228**	**0.0470**	**0.0568**
Total Turbine Model Input:		**0.977**				

CHRONIC HAZARD INDEX INPUTS FROM COMBUSTION SOURCES (EXISTING CONDITIONS)

Chemical	Unit Risk Factor	Tubine Natural Gas	Diesel	Boiler #2	Boiler #3	Boiler #4
Actaldehyde	9	1.48E-06	-----	0.00E+00	0.00E+00	0.00E+00
Acrolein	0.06	3.31E-03	-----	0.00E+00	0.00E+00	0.00E+00
Benzene	60	6.21E-06	-----	1.85E-08	7.08E-08	8.55E-08
1,3 Butadiene	20	6.68E-07	-----	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	800	0.00E+00	-----	7.93E-10	3.04E-09	3.66E-09
Ethylbenzene	2000	4.97E-07	-----	0.00E+00	0.00E+00	0.00E+00
Fomaldehyde	3	7.35E-03	-----	1.32E-05	5.06E-05	6.11E-05
Hexane	7000	0.00E+00	-----	1.36E-07	5.20E-07	6.28E-07
Naphthalene	9	4.49E-06	-----	3.58E-08	1.37E-07	1.66E-07
PAHs (BaP Equivalents) cancer	0.48	5.82E-05	-----	1.15E-06	4.41E-06	5.32E-06
PAHs (Pyrene Equivalents) chronic	45	0.00E+00	-----	6.93E-10	2.65E-09	3.20E-09
Propylene Oxide	30	1.35E-04	-----	0.00E+00	0.00E+00	0.00E+00
Toluene	300	1.35E-05	-----	5.99E-09	2.29E-08	2.77E-08
Xylenes	700	2.84E-06	-----	0.00E+00	0.00E+00	0.00E+00
Particulates						
Arsenic	0.03	2.07E-04	-----	3.52E-06	1.35E-05	1.63E-05
Beryllium	0.007	5.32E-05	-----	9.06E-07	3.47E-06	4.19E-06
Cadmium	0.02	1.71E-03	-----	2.91E-05	1.11E-04	1.34E-04
Chromium	1.02	4.26E-05	-----	7.25E-07	2.78E-06	3.35E-06
Cobalt	0.005	5.22E-04	-----	8.88E-06	3.40E-05	4.10E-05
Copper	0.02	1.32E-03	-----	2.25E-05	8.60E-05	1.04E-04
Lead	1.5	1.04E-05	-----	1.76E-07	6.74E-07	8.14E-07
Manganese	0.2	5.90E-05	-----	1.00E-06	3.84E-06	4.64E-06
Mercury	0.09	8.97E-05	-----	1.53E-06	5.85E-06	7.06E-06
Nickel	0.05	1.30E-03	-----	2.22E-05	8.50E-05	1.03E-04
Selenium	20	3.73E-08	-----	6.34E-10	2.43E-09	2.93E-09
Vanadium	0.12	5.95E-04	-----	1.01E-05	3.88E-05	4.68E-05
Zinc	0.9	1.00E-03	-----	1.70E-06	6.52E-06	7.87E-06
Diesel Particulate	5	-----	6.05E-05	-----	-----	-----
TOTAL		**1.78E-02**	**6.05E-05**	**1.17E-04**	**4.47E-04**	**5.40E-04**
TOTAL TURBINE		**1.79E-02**				

ACUTE HAZARD INDEX INPUTS FROM COMBUSTION SOURCES (EXISTING CODITIONS)

Chemical	Unit Risk Factor	Tubine Natural Gas	Diesel	Boiler #2	Boiler #3	Boiler #4
Actaldehyde	4.51E+03	3.94E-09	-----	0.00E+00	0.00E+00	0.00E+00
Acrolein	1.90E-01	1.39E-03	-----	0.00E+00	0.00E+00	0.00E+00
Benzene	1.30E+03	3.81E-07	-----	2.79E-08	2.75E-08	2.75E-08
1,3 Butadiene	2.21E+02	8.04E-08	-----	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	6.00E+03	0.00E+00	-----	3.45E-09	3.40E-09	3.40E-09
Ethylbenzene	4.34E+04	3.05E-08	-----	0.00E+00	0.00E+00	0.00E+00
Fomaldehyde	9.40E+01	3.12E-04	-----	1.38E-05	1.36E-05	1.36E-05
Hexane	1.76E+04	0.00E+00	-----	1.77E-06	1.74E-06	1.74E-06
Naphthalene	5.00E+03	1.07E-08	-----	2.11E-09	2.08E-09	2.08E-09
PAHs (BaP Equivalents) cancer	2.00E+01	1.86E-06	-----	9.03E-07	8.89E-07	8.89E-07
PAHs (Pyrene Equivalents) chronic	5.00E+03	0.00E+00	-----	2.04E-10	2.01E-10	2.01E-10
Propylene Oxide	3.10E+03	0.00E+00	-----	2.78E-11	2.74E-11	2.74E-11
Toluene	3.70E+04	1.45E-07	-----	1.59E-09	1.56E-09	1.56E-09
Xylenes	2.20E+04	1.20E-07	-----	0.00E+00	0.00E+00	0.00E+00
Metals						
Arsenic	1.90E-01	4.35E-05	-----	1.82E-05	1.79E-05	1.79E-05
Beryllium	2.00E-01	2.48E-06	-----	1.04E-06	1.02E-06	1.02E-06
Cadmium	5.00E-01	9.09E-05	-----	3.80E-05	3.74E-05	3.74E-05
Chromium	4.30E+01	1.35E-06	-----	5.62E-07	5.54E-07	5.54E-07
Cobalt	2.00E+00	1.74E-06	-----	7.25E-07	7.14E-07	7.14E-07
Copper	1.00E+02	3.51E-07	-----	1.47E-07	1.45E-07	1.45E-07
Lead	5.00E+00	4.13E-06	-----	1.73E-06	1.70E-06	1.70E-06
Manganese	2.00E+01	7.85E-07	-----	3.28E-07	3.23E-07	3.23E-07
Mercury	1.80E+00	5.97E-06	-----	2.49E-06	2.46E-06	2.46E-06
Nickel	6.00E+00	1.45E-05	-----	6.04E-06	5.95E-06	5.95E-06
Selenium	2.00E+01	4.96E-08	-----	2.07E-08	2.04E-08	2.04E-08
Vanadium (pentoxide)	3.00E+01	3.17E-06	-----	1.32E-06	1.30E-06	1.30E-06
Zinc	5.00E+01	2.40E-05	-----	1.00E-06	9.87E-07	9.87E-07
Diesel Particulate	N/A	-----	-----	-----	-----	-----
Total		**1.90E-03**	**0.00E+00**	**8.80E-05**	**8.67E-05**	**8.67E-05**

UC BERKELEY TOXIC AIR EMISSIONS FROM COMBUSTION SOURCES - ANNUAL AVERAGE (LRDP)

Pollutant	Turbines				Boiler #2		Boiler #3		Boiler #4	
	Natural Gas		Diesel		Natural Gas		Natural Gas		Natural Gas	
	lb/hr	g/s	lb/hr	g/s	lb/hr	g/s	lb/hr	g/s	lb/hr	g/s
Actaldehyde	1.06E-04	1.335E-05	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	1.58E-03	1.988E-04	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzene	2.96E-03	3.727E-04	N/A	N/A	8.92E-06	1.12E-06	3.37E-05	4.25E-06	4.07E-05	5.13E-06
1,3 Butadiene	1.06E-04	1.335E-05	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	0.00E+00	0.000E+00	N/A	N/A	5.10E-06	6.42E-07	1.93E-05	2.43E-06	2.33E-05	2.93E-06
Ethylbenzene	7.89E-03	9.938E-04	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fomaldehyde	1.75E-01	2.205E-02	N/A	N/A	3.18E-04	4.01E-05	1.20E-03	1.52E-04	1.45E-03	1.83E-04
Hexane3	0.00E+00	0.000E+00	N/A	N/A	7.64E-03	9.63E-04	2.89E-02	3.64E-03	3.49E-02	4.40E-03
Naphthalene	3.20E-04	4.037E-05	N/A	N/A	2.59E-06	3.26E-07	9.80E-06	1.23E-06	1.18E-05	1.49E-06
PAHs (BaP Equivalents)	2.22E-04	2.795E-05	N/A	N/A	4.44E-06	5.59E-07	1.68E-05	2.12E-06	2.03E-05	2.55E-06
PAHs (Pyrene Equivalents)	0.00E+00	0.00E+00	N/A	N/A	2.51E-07	3.16E-08	9.48E-07	1.19E-07	1.14E-06	1.44E-07
Proylene Oxide	3.20E-02	4.037E-03	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	3.20E-02	4.037E-03	N/A	N/A	1.44E-05	1.82E-06	5.46E-05	6.88E-06	6.59E-05	8.31E-06
Xylenes	1.58E-02	1.988E-03	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulates										
Arsenic	4.93E-05	6.211E-06	N/A	N/A	8.49E-07	1.07E-07	3.21E-06	4.05E-07	3.88E-06	4.89E-07
Beryllium	2.96E-06	3.727E-07	N/A	N/A	5.10E-08	6.42E-09	1.93E-07	2.43E-08	2.33E-07	2.93E-08
Cadmium	2.71E-04	3.416E-05	N/A	N/A	4.67E-06	5.88E-07	1.77E-05	2.23E-06	2.13E-05	2.69E-06
Chromium	3.45E-04	4.348E-05	N/A	N/A	5.94E-06	7.49E-07	2.25E-05	2.83E-06	2.71E-05	3.42E-06
Cobalt	2.07E-05	2.609E-06	N/A	N/A	3.57E-07	4.49E-08	1.35E-06	1.70E-07	1.63E-06	2.05E-07
Copper	2.10E-04	2.640E-05	N/A	N/A	3.61E-06	4.55E-07	1.37E-05	1.72E-06	1.65E-05	2.08E-06
Lead	1.23E-04	1.553E-05	N/A	N/A	2.12E-06	2.67E-07	8.03E-06	1.01E-06	9.69E-06	1.22E-06
Manganese	9.37E-05	1.180E-05	N/A	N/A	1.61E-06	2.03E-07	6.10E-06	7.69E-07	7.37E-06	9.28E-07
Mercury	6.41E-05	8.075E-06	N/A	N/A	1.10E-06	1.39E-07	4.18E-06	5.26E-07	5.04E-06	6.35E-07
Nickel	5.18E-04	6.522E-05	N/A	N/A	8.92E-06	1.12E-06	3.37E-05	4.25E-06	4.07E-05	5.13E-06
Selenium	5.92E-06	7.453E-07	N/A	N/A	1.02E-07	1.28E-08	3.85E-07	4.86E-08	4.65E-07	5.86E-08
Vanadium	5.67E-04	7.143E-05	N/A	N/A	9.77E-06	1.23E-06	3.69E-05	4.65E-06	4.46E-05	5.62E-06
Zinc	7.15E-03	9.006E-04	N/A	N/A	1.23E-05	1.55E-06	4.66E-05	5.87E-06	5.62E-05	7.08E-06
Diesel Particulate	N/A	N/A	2.40E-03	3.02E-04	N/A	N/A	N/A	N/A	N/A	N/A

	TURBINE + Catalytic Afterburner						BOILER #2	BOILER #3	BOILER #4
	Natural Gas		Fuel Oil				Natural Gas	Natural Gas	Natural Gas
	Annual		Annual			Annual			
MMBtu/hr (HHV):	246.4775		Gallons/hr	1.428	1.428				
Btu/scf (HHV):	1000		Btu/gal	140,000			MMscf/hr:	0.00425	0.01606	0.01939
MMscf/hr:	0.24648		MMBtu/hr:	0.200					

UC BERKELEY TOXIC AIR EMISSIONS FROM COMBUSTION SOURCES - MAXIMUM HOURLY (LRDP)

| Pollutant | Turbines | | | | Boiler #2 | | Boiler #3 | | Boiler #4 | |
| | Natural Gas | | Diesel | | Natural Gas | | Natural Gas | | Natural Gas | |
	lb/hr	g/s	lb/hr	g/s	lb/hr	g/s	lb/hr	g/s	lb/hr	g/s
Actaldehyde	1.41E-04	1.777E-05	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	2.10E-03	2.645E-04	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzene	3.94E-03	4.959E-04	N/A	N/A	2.88E-04	3.63E-05	2.84E-04	3.57E-05	2.84E-04	3.57E-05
1,3 Butadiene	1.41E-04	1.777E-05	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	0.00E+00	0.000E+00	N/A	N/A	1.64E-04	2.07E-05	1.62E-04	2.04E-05	1.62E-04	2.04E-05
Ethylbenzene	1.05E-02	1.322E-03	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fomaldehyde	2.33E-01	2.934E-02	N/A	N/A	1.03E-02	1.29E-03	1.01E-02	1.28E-03	1.01E-02	1.28E-03
Hexane3	0.00E+00	0.000E+00	N/A	N/A	2.47E-01	3.11E-02	2.43E-01	3.06E-02	2.43E-01	3.06E-02
Naphthalene	4.26E-04	5.373E-05	N/A	N/A	8.36E-05	1.05E-05	8.24E-05	1.04E-05	8.24E-05	1.04E-05
PAHs (BaP Equivalents)	2.95E-04	3.720E-05	N/A	N/A	1.43E-04	1.81E-05	1.41E-04	1.78E-05	1.41E-04	1.78E-05
PAHs (Pyrene Equivalents)	0.00E+00	0.00E+00	N/A	N/A	8.08E-06	1.02E-06	7.97E-06	1.00E-06	7.97E-06	1.00E-06
Proylene Oxide	0.00E+00	0.000E+00	N/A	N/A	6.85E-07	8.63E-08	6.75E-07	8.51E-08	6.75E-07	8.51E-08
Toluene	4.26E-02	5.373E-03	N/A	N/A	4.66E-04	5.87E-05	4.59E-04	5.78E-05	4.59E-04	5.78E-05
Xylenes	2.10E-02	2.645E-03	N/A	N/A	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulates										
Arsenic	6.56E-05	8.266E-06	N/A	N/A	2.74E-05	3.45E-06	2.70E-05	3.40E-06	2.70E-05	3.40E-06
Beryllium	3.94E-06	4.959E-07	N/A	N/A	1.64E-06	2.07E-07	1.62E-06	2.04E-07	1.62E-06	2.04E-07
Cadmium	3.61E-04	4.546E-05	N/A	N/A	1.51E-04	1.90E-05	1.49E-04	1.87E-05	1.49E-04	1.87E-05
Chromium	4.59E-04	5.786E-05	N/A	N/A	1.92E-04	2.42E-05	1.89E-04	2.38E-05	1.89E-04	2.38E-05
Cobalt	2.76E-05	3.472E-06	N/A	N/A	1.15E-05	1.45E-06	1.13E-05	1.43E-06	1.13E-05	1.43E-06
Copper	2.79E-04	3.513E-05	N/A	N/A	1.16E-04	1.47E-05	1.15E-04	1.45E-05	1.15E-04	1.45E-05
Lead	1.64E-04	2.066E-05	N/A	N/A	6.85E-05	8.63E-06	6.75E-05	8.51E-06	6.75E-05	8.51E-06
Manganese	1.25E-04	1.570E-05	N/A	N/A	5.21E-05	6.56E-06	5.13E-05	6.46E-06	5.13E-05	6.46E-06
Mercury	8.53E-05	1.075E-05	N/A	N/A	3.56E-05	4.49E-06	3.51E-05	4.42E-06	3.51E-05	4.42E-06
Nickel	6.89E-04	8.679E-05	N/A	N/A	2.88E-04	3.63E-05	2.84E-04	3.57E-05	2.84E-04	3.57E-05
Selenium	7.87E-06	9.919E-07	N/A	N/A	3.29E-06	4.14E-07	3.24E-06	4.08E-07	3.24E-06	4.08E-07
Vanadium	7.54E-04	9.505E-05	N/A	N/A	3.15E-04	3.97E-05	3.11E-04	3.91E-05	3.11E-04	3.91E-05
Zinc	9.51E-03	1.199E-03	N/A	N/A	3.97E-04	5.01E-05	3.92E-04	4.93E-05	3.92E-04	4.93E-05
Diesel Particulate	N/A	N/A	2.928E+00	3.69E-01	N/A	N/A	N/A	N/A	N/A	N/A

| TURBINE + Catalytic Afterburner | | | | BOILER #2 | BOILER #3 | BOILER #4 |
| Natural Gas | | Fuel Oil | | Natural Gas | Natural Gas | Natural Gas |
Maximum Hourly		Maximum Hourly		Maximum Hourly		
MMBtu/hr (HHV):	328.0000	Gallons/hr	1,742.857	MMBtu/hr (HHV): 137.0000	135.0000	135.0000
Btu/scf (HHV):	1000	Btu/gal	140,000	Btu/scf (HHV): 1000	1000	1000
MMscf/hr:	0.32800	MMBtu/hr:	244.000	MMscf/hr: 0.13700	0.13500	0.13500

CANCER RISK INPUTS FROM COMBUSTION SOURCES (LRDP)

Chemical	Unit Risk Factor	Tubine Natural Gas	Diesel	Boiler #2	Boiler #3	Boiler #4
Actaldehyde	2.7E-06	3.6E-11	-----	0.00E+00	0.00E+00	0.00E+00
Acrolein	N/A	-----	-----	-----	-----	-----
Benzene	2.9E-05	1.1E-08	-----	3.26E-11	1.23E-10	1.49E-10
1,3 Butadiene	1.70E-04	2.3E-09	-----	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	1.10E-05	-----	-----	7.06E-12	2.67E-11	3.22E-11
Ethylbenzene	N/A	-----	-----	-----	-----	-----
Fomaldehyde	6.00E-06	1.3E-07	-----	2.41E-10	9.11E-10	1.10E-09
Hexane3	N/A	-----	-----	-----	-----	-----
Naphthalene	N/A	-----	-----	-----	-----	-----
PAHs4	1.10E-03	3.07E-08	-----	3.47E-11	1.31E-10	1.59E-10
Propylene Oxide	3.70E-06	1.5E-08	-----	-----	-----	-----
Toluene	N/A	-----	-----	-----	-----	-----
Xylenes	N/A	-----	-----	-----	-----	-----
Arsenic	3.30E-03	2.0E-08	-----	3.53E-10	1.34E-09	1.61E-09
Beryllium	2.40E-03	8.9E-10	-----	1.54E-11	5.83E-11	7.03E-11
Cadmium	4.20E-03	1.4E-07	-----	2.47E-09	9.35E-09	1.13E-08
Chromium	1.20E-02	5.2E-07	-----	8.99E-09	3.40E-08	4.10E-08
Cobalt	N/A	-----	-----	-----	-----	-----
Copper	N/A	-----	-----	-----	-----	-----
Lead	1.20E-05	1.9E-10	-----	3.21E-12	1.21E-11	1.47E-11
Manganese	N/A	-----	-----	-----	-----	-----
Mercury	N/A	-----	-----	-----	-----	-----
Nickel	2.60E-04	1.7E-08	-----	2.92E-10	1.10E-09	1.33E-09
Selenium	N/A	-----	-----	-----	-----	-----
Vanadium	N/A	-----	-----	-----	-----	-----
Zinc	N/A	-----	-----	-----	-----	-----
Diesel Particulates	3.00E-04	-----	9.07E-08	-----	-----	-----
Total		**8.87E-07**	**9.07E-08**	**1.24E-08**	**4.70E-08**	**5.68E-08**
Total x 1000000		**0.887**	**0.09069**	**0.01244**	**0.0470**	**0.0568**
Total Turbine Model Input:		**0.977**				

CHRONIC HAZARD INDEX INPUTS FROM COMBUSTION SOURCES (LRDP)

Chemical	Unit Risk Factor	Tubine Natural Gas	Diesel	Boiler #2	Boiler #3	Boiler #4
Actaldehyde	9	1.48E-06	-----	0.00E+00	0.00E+00	0.00E+00
Acrolein	0.06	3.31E-03	-----	0.00E+00	0.00E+00	0.00E+00
Benzene	60	6.21E-06	-----	1.87E-08	7.08E-08	8.55E-08
1,3 Butadiene	20	6.68E-07	-----	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	800	0.00E+00	-----	8.02E-10	3.04E-09	3.66E-09
Ethylbenzene	2000	4.97E-07	-----	0.00E+00	0.00E+00	0.00E+00
Fomaldehyde	3	7.35E-03	-----	1.34E-05	5.06E-05	6.11E-05
Hexane	7000	0.00E+00	-----	1.38E-07	5.20E-07	6.28E-07
Naphthalene	9	4.49E-06	-----	3.63E-08	1.37E-07	1.66E-07
PAHs (BaP Equivalents) cancer	0.48	5.82E-05	-----	1.17E-06	4.41E-06	5.32E-06
PAHs (Pyrene Equivalents) chronic	45	0.00E+00	-----	7.01E-10	2.65E-09	3.20E-09
Propylene Oxide	30	1.35E-04	-----	0.00E+00	0.00E+00	0.00E+00
Toluene	300	1.35E-05	-----	6.06E-09	2.29E-08	2.77E-08
Xylenes	700	2.84E-06	-----	0.00E+00	0.00E+00	0.00E+00
Particulates						
Arsenic	0.03	2.07E-04	-----	3.57E-06	1.35E-05	1.63E-05
Beryllium	0.007	5.32E-05	-----	9.17E-07	3.47E-06	4.19E-06
Cadmium	0.02	1.71E-03	-----	2.94E-05	1.11E-04	1.34E-04
Chromium	1.02	4.26E-05	-----	7.34E-07	2.78E-06	3.35E-06
Cobalt	0.005	5.22E-04	-----	8.99E-06	3.40E-05	4.10E-05
Copper	0.02	1.32E-03	-----	2.27E-05	8.60E-05	1.04E-04
Lead	1.5	1.04E-05	-----	1.78E-07	6.74E-07	8.14E-07
Manganese	0.2	5.90E-05	-----	1.02E-06	3.84E-06	4.64E-06
Mercury	0.09	8.97E-05	-----	1.55E-06	5.85E-06	7.06E-06
Nickel	0.05	1.30E-03	-----	2.25E-05	8.50E-05	1.03E-04
Selenium	20	3.73E-08	-----	6.42E-10	2.43E-09	2.93E-09
Vanadium	0.12	5.95E-04	-----	1.03E-05	3.88E-05	4.68E-05
Zinc	0.9	1.00E-03	-----	1.72E-06	6.52E-06	7.87E-06
Diesel Particulate	5	-----	6.05E-05	-----	-----	-----
TOTAL		**1.78E-02**	**6.05E-05**	**1.18E-04**	**4.47E-04**	**5.40E-04**
TOTAL TURBINE		**1.79E-02**				

LRDP ACUTE HAZARD INDEX FROM COMBUSTION SOURCES (LRDP)

Chemical	Unit Risk Factor	Tubine Natural Gas	Diesel	Boiler #2	Boiler #3	Boiler #4
Actaldehyde	4.51E+03	3.94E-09	-----	0.00E+00	0.00E+00	0.00E+00
Acrolein	1.90E-01	1.39E-03	-----	0.00E+00	0.00E+00	0.00E+00
Benzene	1.30E+03	3.81E-07	-----	2.79E-08	2.75E-08	2.75E-08
1,3 Butadiene	2.21E+02	8.04E-08	-----	0.00E+00	0.00E+00	0.00E+00
Dichlorobenzene	6.00E+03	0.00E+00	-----	3.45E-09	3.40E-09	3.40E-09
Ethylbenzene	4.34E+04	3.05E-08	-----	0.00E+00	0.00E+00	0.00E+00
Fomaldehyde	9.40E+01	3.12E-04	-----	1.38E-05	1.36E-05	1.36E-05
Hexane	1.76E+04	0.00E+00	-----	1.77E-06	1.74E-06	1.74E-06
Naphthalene	5.00E+03	1.07E-08	-----	2.11E-09	2.08E-09	2.08E-09
PAHs (BaP Equivalents) cancer	2.00E+01	1.86E-06	-----	9.03E-07	8.89E-07	8.89E-07
PAHs (Pyrene Equivalents) chronic	5.00E+03	0.00E+00	-----	2.04E-10	2.01E-10	2.01E-10
Propylene Oxide	3.10E+03	0.00E+00	-----	2.78E-11	2.74E-11	2.74E-11
Toluene	3.70E+04	1.45E-07	-----	1.59E-09	1.56E-09	1.56E-09
Xylenes	2.20E+04	1.20E-07	-----	0.00E+00	0.00E+00	0.00E+00
Metals						
Arsenic	1.90E-01	4.35E-05	-----	1.82E-05	1.79E-05	1.79E-05
Beryllium	2.00E-01	2.48E-06	-----	1.04E-06	1.02E-06	1.02E-06
Cadmium	5.00E-01	9.09E-05	-----	3.80E-05	3.74E-05	3.74E-05
Chromium	4.30E+01	1.35E-06	-----	5.62E-07	5.54E-07	5.54E-07
Cobalt	2.00E+00	1.74E-06	-----	7.25E-07	7.14E-07	7.14E-07
Copper	1.00E+02	3.51E-07	-----	1.47E-07	1.45E-07	1.45E-07
Lead	5.00E+00	4.13E-06	-----	1.73E-06	1.70E-06	1.70E-06
Manganese	2.00E+01	7.85E-07	-----	3.28E-07	3.23E-07	3.23E-07
Mercury	1.80E+00	5.97E-06	-----	2.49E-06	2.46E-06	2.46E-06
Nickel	6.00E+00	1.45E-05	-----	6.04E-06	5.95E-06	5.95E-06
Selenium	2.00E+01	4.96E-08	-----	2.07E-08	2.04E-08	2.04E-08
Vanadium (pentoxide)	3.00E+01	3.17E-06	-----	1.32E-06	1.30E-06	1.30E-06
Zinc	5.00E+01	2.40E-05	-----	1.00E-06	9.87E-07	9.87E-07
Diesel Particulate	N/A	-----	-----	-----	-----	-----
Total		**1.90E-03**	**0.00E+00**	**8.80E-05**	**8.67E-05**	**8.67E-05**

```
*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh - Acute HI                          ***
*** Model Executed on 02/04/04 at 17:37:11 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Acute.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Acute.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc


     Number of sources -        97
Number of source groups -        26
   Number of receptors -      1481



                              *** POINT SOURCE DATA ***


           NUMBER EMISSION RATE                   BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
  SOURCE   PART.  (GRAMS/SEC)    X        Y        ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
    ID     CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8    0  0.42700E-06  564704.4 4191782.8   66.8   31.70   293.15     7.12     0.19     YES
  NWAF9       0  0.59100E-05  564718.8 4191791.2   66.8   29.57   293.15    16.48     0.74     YES
  WHSTK10     0  0.42700E-06  564724.4 4191826.0   66.8    8.60   293.15     7.12     0.34     YES
  MHSTK1      0  0.56100E-06  564794.4 4191795.8   74.8    7.61   293.15    17.25     0.34     YES
  MHSTK2      0  0.56100E-06  564798.6 4191843.0   74.8   10.89   293.15    17.25     0.29     YES
  MHSTK3      0  0.56100E-06  564794.1 4191843.0   74.8   10.89   293.15    17.25     0.48     YES
  MHSTK4      0  0.56100E-06  564800.9 4191787.2   74.8   15.61   293.15    17.25     0.33     YES
  MHSTK6      0  0.56100E-06  564801.3 4191808.2   74.8   10.94   293.15    17.25     0.34     YES
  KHSTK1      0  0.91800E-05  564761.1 4191879.8   72.7   18.45   293.15     1.28     2.76     YES
  KHSTK2      0  0.91800E-05  564759.4 4191891.8   72.7   18.45   293.15     1.28     2.76     YES
  KHSTK3      0  0.91800E-05  564732.4 4191877.5   72.7   18.45   293.15     1.28     2.76     YES
  KHSTK4      0  0.91800E-05  564731.4 4191889.0   72.7   18.45   293.15     1.28     2.76     YES
  BHSTK1      0  0.30000E-05  564678.9 4191889.0   67.4   27.85   293.15     2.78     1.26     YES
  BHSTK2      0  0.30000E-05  564675.0 4191896.8   67.4   29.68   293.15     2.78     1.26     YES
  BHSTK3      0  0.30000E-05  564704.5 4191887.8   67.4   29.68   293.15     2.78     1.26     YES
  BHSTK4      0  0.30000E-05  564707.4 4191887.8   67.4   33.34   293.15     2.78     0.37     YES
  BHSTK5      0  0.30000E-05  564691.6 4191888.0   67.4   33.34   293.15     2.78     0.37     YES
  VLSBSTK1    0  0.87700E-05  564933.6 4191633.2   64.4   27.04   293.15     3.97     1.22     YES
  VLSBSTK2    0  0.87700E-05  564954.0 4191566.5   64.4   27.04   293.15     3.97     1.22     YES
  VLSBSTK3    0  0.87700E-05  565051.3 4191594.8   64.4   27.04   293.15     3.97     1.22     YES
  VLSBSTK4    0  0.87700E-05  565030.6 4191662.2   64.4   27.04   293.15     3.97     1.22     YES
  LSASTK1     0  0.11400E-04  564892.2 4191637.2   64.4   28.31   293.15     5.18     1.22     YES
  LSASTK2     0  0.11400E-04  564875.3 4191632.8   64.4   28.31   293.15     5.18     1.22     YES
  LSASTK3     0  0.11400E-04  564907.6 4191580.5   64.4   28.31   293.15     5.18     1.22     YES
  LSASTK4     0  0.11400E-04  564897.1 4191578.0   64.4   28.31   293.15     5.18     1.22     YES
  LSASTK5     0  0.11400E-04  564908.6 4191576.2   64.4   28.31   293.15     5.18     1.22     YES
  LSASTK6     0  0.11400E-04  564899.1 4191573.5   64.4   28.31   293.15     5.18     1.22     YES
  LSASTK7     0  0.11400E-04  564900.8 4191572.2   64.4   28.31   293.15     5.18     0.30     YES
  LEWHSTK1    0  0.17700E-05  565605.8 4191772.0  106.7   12.80   293.15     3.11     0.36     YES
  LEWHSTK2    0  0.17700E-05  565591.5 4191786.0  106.7   12.80   293.15     3.11     0.36     YES
  LEWHSTK3    0  0.17700E-05  565585.9 4191792.2  106.7   12.80   293.15     3.11     0.36     YES
  LEWHSTK4    0  0.17700E-05  565583.1 4191800.0  106.7   12.80   293.15     3.11     0.36     YES
  LEWHSTK5    0  0.17700E-05  565598.1 4191787.8  106.7   12.80   293.15     3.11     0.36     YES
  LEWHSTK6    0  0.17700E-05  565619.4 4191775.8  106.7   12.80   293.15     3.11     0.36     YES
  LEWHSTK7    0  0.17700E-05  565608.8 4191787.2  106.7   12.80   293.15     3.11     0.36     YES
  LEWHSTK8    0  0.17700E-05  565597.6 4191800.5  106.7   12.80   293.15     3.11     0.30     YES
  LEWHSTK9    0  0.17700E-05  565593.3 4191808.2  106.7   12.80   293.15     3.11     0.36     YES
  LATHSTK1    0  0.75900E-05  565555.1 4191799.2  104.6   42.37   293.15     6.28     0.34     YES
  LATHSTK2    0  0.75900E-05  565561.1 4191812.0  104.6   36.88   293.15     6.28     0.70     YES
  LATHSTK3    0  0.75900E-05  565531.6 4191800.2  104.6   36.88   293.15     6.28     0.48     YES


                              *** POINT SOURCE DATA ***


           NUMBER EMISSION RATE                   BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
  SOURCE   PART.  (GRAMS/SEC)    X        Y        ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
    ID     CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  LATHSTK4    0  0.75900E-05  565515.1 4191799.5  104.6   37.19   293.15     6.28     0.96     YES
  LATHSTK5    0  0.75900E-05  565539.7 4191794.2  104.6   42.37   293.15     6.28     0.70     YES
  LATHSTK6    0  0.75900E-05  565527.3 4191776.0  104.6   38.40   293.15     6.28     0.74     YES
  LATHSTK7    0  0.75900E-05  565544.9 4191781.5  104.6   38.40   293.15     6.28     0.31     YES
  LATHSTK8    0  0.75900E-05  565562.3 4191787.0  104.6   38.40   293.15     6.28     0.70     YES
  TANHSTKA    0  0.65400E-05  565492.1 4191793.8  100.6   39.32   293.15     2.94     1.69     YES
  TANHSTKB    0  0.65400E-05  565496.8 4191794.0  100.6   39.32   293.15     2.94     1.69     YES
  TANHSTKC    0  0.65400E-05  565494.1 4191787.2  100.6   39.32   293.15     2.94     1.69     YES
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TANHSTKD      0   0.65400E-05  565499.1 4191788.2   100.6    39.32   293.15     2.94     1.69     YES
HHSTKA        0   0.71400E-05  565540.8 4191749.5   103.6    20.12   293.15     4.15     1.52     YES
HHSTKB        0   0.71400E-05  565565.6 4191756.8   103.6    20.12   293.15     4.15     1.52     YES
HHSTKC        0   0.71400E-05  565576.8 4191717.8   103.6    20.12   293.15     4.15     1.52     YES
HHSTKD        0   0.71400E-05  565553.2 4191710.5   103.6    20.12   293.15     4.15     1.52     YES
HHSTKE        0   0.71400E-05  565543.4 4191746.5   103.6    20.12   293.15     4.15     0.81     YES
STHSTK1       0   0.27600E-06  565530.3 4191891.8   112.8    13.87   293.15     2.17     0.27     YES
STHSTK2       0   0.27600E-06  565522.0 4191918.2   112.8    13.87   293.15     2.17     0.34     YES
STHSTK3       0   0.27600E-06  565537.9 4191871.8   112.8    17.56   293.15     2.17     0.34     YES
STHSTK4       0   0.27600E-06  565529.5 4191871.8   112.8    13.87   293.15     2.17     0.34     YES
STHSTK5       0   0.27600E-06  565530.9 4191870.0   112.8    14.02   293.15     2.17     0.34     YES
STHSTK6       0   0.27600E-06  565530.1 4191869.5   112.8    14.02   293.15     2.17     0.27     YES
STHSTK7       0   0.27600E-06  565532.6 4191866.5   112.8    14.02   293.15     2.17     0.39     YES
STHSTK8       0   0.27600E-06  565538.2 4191864.0   112.8    14.02   293.15     2.17     0.27     YES
STHSTK9       0   0.27600E-06  565525.9 4191880.5   112.8    14.02   293.15     2.17     0.53     YES
STHSTK11      0   0.27600E-06  565519.0 4191907.5   112.8    13.87   293.15     2.17     0.34     YES
GHSTK1        0   0.86700E-06  565507.1 4191756.0   103.6    16.06   293.15     5.92     0.30     YES
GHSTK2        0   0.86700E-06  565510.6 4191744.8   103.6    16.06   293.15     5.92     0.25     YES
GHSTK3        0   0.86700E-06  565512.4 4191739.0   103.6    16.37   293.15     5.92     0.30     YES
GHSTK4        0   0.86700E-06  565514.7 4191737.8   103.6    15.91   293.15     5.92     0.31     YES
GHSTK5        0   0.86700E-06  565514.9 4191732.2   103.6    16.06   293.15     5.92     0.30     YES
GHSTK6        0   0.86700E-06  565500.2 4191755.2   103.6    16.12   293.15     5.92     0.30     YES
GHSTK7        0   0.86700E-06  565501.1 4191753.0   103.6    16.37   293.15     5.92     0.84     YES
GHSTK8        0   0.86700E-06  565503.7 4191744.2   103.6    16.00   293.15     5.92     0.30     YES
GHSTK9        0   0.86700E-06  565505.2 4191740.2   103.6    16.37   293.15     5.92     0.26     YES
GHSTK10       0   0.86700E-06  565506.9 4191735.2   103.6    16.06   293.15     5.92     0.30     YES
GHSTK11       0   0.86700E-06  565509.7 4191728.2   103.6    16.22   293.15     5.92     0.30     YES
GHSTK12       0   0.86700E-06  565509.0 4191725.5   103.6    16.06   293.15     5.92     0.30     YES
GHSTK13       0   0.86700E-06  565516.9 4191725.5   103.6    15.91   293.15     5.92     0.40     YES
CHSTK1        0   0.38000E-05  565393.9 4192008.8   110.3    26.85   293.15     2.00     1.00     YES
DHSTK1        0   0.95700E-06  565329.4 4191982.0   107.2    16.36   293.15     2.00     1.00     YES
HESSTK1       0   0.41400E-05  565234.6 4191926.2    98.2    15.39   293.15     2.00     1.00     YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
HILSTK1	0	0.20500E-04	564874.6	4191815.0	80.4	14.96	293.15	2.00	1.00	YES	
MULSTK1	0	0.26400E-07	564779.7	4191737.8	74.4	17.24	293.15	2.00	1.00	YES	
WELSTK1	0	0.15600E-06	564933.7	4191795.2	81.7	5.89	293.15	2.00	1.00	YES	
PRINTA	0	0.50300E-05	564584.7	4191553.2	60.0	8.91	293.15	2.70	0.84	YES	
PRINTB	0	0.50300E-05	564614.4	4191520.8	60.0	8.91	293.15	2.70	0.84	YES	
PRINTC	0	0.50300E-05	564643.1	4191525.5	60.0	8.91	293.15	2.70	0.60	YES	
COGEN	0	0.19000E-02	564876.0	4191492.0	71.9	12.77	430.37	10.45	2.28	YES	
BOILER#2	0	0.88000E-04	564863.6	4191499.5	71.9	8.80	522.82	7.97	1.52	YES	
BOILER#3	0	0.86700E-04	564881.9	4191505.8	71.9	8.80	554.11	10.53	1.52	YES	
BOILER#4	0	0.86700E-04	564885.8	4191495.8	71.9	8.80	566.65	12.63	1.52	YES	
POURING	0	0.14600E-04	564847.8	4191467.0	70.1	14.94	293.15	4.62	0.56	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.56100E-06	564821.2	4191842.8	74.8	6.95	0.07	2.42	
STHSTK10	0	0.27600E-06	565522.6	4191880.8	112.8	14.02	0.29	5.39	
PAINT1	0	0.80600E-07	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.80600E-07	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.80600E-07	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.80600E-07	564865.7	4191751.0	77.0	4.57	3.54	4.25	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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GROUP ID                                  SOURCE IDs


 ALL     WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

        KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
```

LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
          LEWHSTK7,

                LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
          TANHSTKB,

                TANHSTKC, TANHSTKD, HHSTKA , HHSTKB , HHSTKC , HHSTKD , HHSTKE , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
          STHSTK5 ,

                STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1 , GHSTK2 , GHSTK3 , GHSTK4 , GHSTK5 , GHSTK6
          ,

                GHSTK7 , GHSTK8 , GHSTK9 , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1 , DHSTK1 , HESSTK1 , HILSTK1 ,
          MULSTK1 ,

                WELSTK1 , PRINTA , PRINTB , PRINTC , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1 , PAINT2 , PAINT3
          ,

                PAINT4 ,

      WH   WHSTK1_8, WHSTK10 ,

      NWAF   NWAF9   ,

      MH   MHSTK1 , MHSTK2 , MHSTK3 , MHSTK4 , MHSTK5 , MHSTK6 ,

      KH   KHSTK1 , KHSTK2 , KHSTK3 , KHSTK4 ,

      BH   BHSTK1 , BHSTK2 , BHSTK3 , BHSTK4 , BHSTK5 ,

      VLSB   VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

      LSA   LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

      LEW   LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,

      LAT   LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

      TAN   TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

      HH   HHSTKA , HHSTKB , HHSTKC , HHSTKD , HHSTKE ,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

      GROUP ID   SOURCE IDs

      STH   STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 , STHSTK5 , STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10,

      GH   GHSTK1 , GHSTK2 , GHSTK3 , GHSTK4 , GHSTK5 , GHSTK6 , GHSTK7 , GHSTK8 , GHSTK9 , GHSTK10 , GHSTK11 ,
          GHSTK12 ,

                GHSTK13 ,

      CH   CHSTK1 ,

      DH   DHSTK1 ,

      HES   HESSTK1 ,

      HIL   HILSTK1 ,

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       MUL        MULSTK1 ,

        WEL       WELSTK1 ,

     NOENGINE  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
               KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
               LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
               LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
               TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
               STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
               GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
               WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
               PAINT4  ,

      PRINT     PRINTA  , PRINTB  , PRINTC  ,

     COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

                                    *** SOURCE IDs DEFINING SOURCE GROUPS ***
     GROUP ID                                       SOURCE IDs


      HAZMAT    POURING ,

      PAINT     PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

     ALL_LABS  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
               KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
               LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
               LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
               TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
               STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
               GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
               WELSTK1 ,


                                   *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***

                          ** CONC OF ACUTE    IN MICROGRAMS/M**3                          **
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                                                DATE                                                          NETWORK
GROUP ID                        AVERAGE CONC    (YYMMDDHH)         RECEPTOR   (XR, YR, ZELEV, ZFLAG)      OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
ALL     HIGH  1ST HIGH VALUE IS    0.15247  ON 97120207: AT (  565900.00,  4191900.00,    161.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.15239  ON 97052506: AT (  565900.00,  4191900.00,    161.00,    0.00) DC     NA
WH      HIGH  1ST HIGH VALUE IS    0.00198  ON 97080502: AT (  564639.88,  4191852.00,     67.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00195  ON 97061722: AT (  564639.88,  4191852.00,     67.00,    0.00) DC     NA
NWAF    HIGH  1ST HIGH VALUE IS    0.00231  ON 97101522: AT (  565141.94,  4191999.00,     97.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00228  ON 97101521: AT (  565141.94,  4191999.00,     97.00,    0.00) DC     NA
MH      HIGH  1ST HIGH VALUE IS    0.01012  ON 97042201: AT (  564842.69,  4191950.00,     83.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00959  ON 97121206: AT (  564842.69,  4191950.00,     83.00,    0.00) DC     NA
KH      HIGH  1ST HIGH VALUE IS    0.03411  ON 97092803: AT (  564800.00,  4192000.00,     81.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.03236  ON 97082701: AT (  564800.00,  4192000.00,     81.00,    0.00) DC     NA
BH      HIGH  1ST HIGH VALUE IS    0.01085  ON 97071508: AT (  564795.00,  4191930.25,     78.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.01062  ON 97011810: AT (  564795.00,  4191930.25,     78.00,    0.00) DC     NA
VLSB    HIGH  1ST HIGH VALUE IS    0.01473  ON 97101003: AT (  564941.88,  4191967.00,     90.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.01471  ON 97032623: AT (  564941.88,  4191967.00,     90.00,    0.00) DC     NA
LSA     HIGH  1ST HIGH VALUE IS    0.04447  ON 97021521: AT (  564842.69,  4191950.00,     83.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.04135  ON 97010421: AT (  564941.88,  4191967.00,     90.00,    0.00) DC     NA
LEW     HIGH  1ST HIGH VALUE IS    0.05539  ON 97092303: AT (  565592.25,  4191856.75,    116.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.05486  ON 97061605: AT (  565592.25,  4191856.75,    116.00,    0.00) DC     NA
LAT     HIGH  1ST HIGH VALUE IS    0.02568  ON 97103018: AT (  565700.00,  4191900.00,    128.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.02411  ON 97101408: AT (  565700.00,  4191900.00,    128.00,    0.00) DC     NA
TAN     HIGH  1ST HIGH VALUE IS    0.01661  ON 97101502: AT (  565622.62,  4191817.50,    117.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.01586  ON 97101408: AT (  565592.25,  4191856.75,    116.00,    0.00) DC     NA
HH      HIGH  1ST HIGH VALUE IS    0.06334  ON 97082702: AT (  565654.19,  4191781.25,    118.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.05893  ON 97101523: AT (  565654.19,  4191781.25,    118.00,    0.00) DC     NA
STH     HIGH  1ST HIGH VALUE IS    0.00393  ON 97013010: AT (  565592.25,  4191856.75,    116.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00392  ON 97080219: AT (  565592.25,  4191856.75,    116.00,    0.00) DC     NA


                         *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                  ** CONC OF ACUTE    IN MICROGRAMS/M**3                           **

                                                DATE                                                          NETWORK
GROUP ID                        AVERAGE CONC    (YYMMDDHH)         RECEPTOR   (XR, YR, ZELEV, ZFLAG)      OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
GH      HIGH  1ST HIGH VALUE IS    0.01017  ON 97051904: AT (  565693.06,  4191753.75,    117.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00949  ON 97062307: AT (  565654.19,  4191781.25,    118.00,    0.00) DC     NA
CH      HIGH  1ST HIGH VALUE IS    0.00621  ON 97082003: AT (  565475.12,  4192018.00,    118.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00613  ON 97122722: AT (  565475.12,  4192018.00,    118.00,    0.00) DC     NA
DH      HIGH  1ST HIGH VALUE IS    0.00193  ON 97041721: AT (  565339.88,  4192034.25,    108.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00191  ON 97042201: AT (  565339.88,  4192034.25,    108.00,    0.00) DC     NA
HES     HIGH  1ST HIGH VALUE IS    0.00280  ON 97092109: AT (  565241.19,  4192017.75,    102.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00279  ON 97012811: AT (  565241.19,  4192017.75,    102.00,    0.00) DC     NA
HIL     HIGH  1ST HIGH VALUE IS    0.05399  ON 97012908: AT (  564941.88,  4191967.00,     90.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.05361  ON 97052623: AT (  564941.88,  4191967.00,     90.00,    0.00) DC     NA
MUL     HIGH  1ST HIGH VALUE IS    0.00004  ON 97101421: AT (  564842.69,  4191950.00,     83.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00004  ON 97123123: AT (  564842.69,  4191950.00,     83.00,    0.00) DC     NA
WEL     HIGH  1ST HIGH VALUE IS    0.00027  ON 97102802: AT (  564941.88,  4191967.00,     90.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00026  ON 97042004: AT (  564941.88,  4191967.00,     90.00,    0.00) DC     NA
NOENGINE HIGH  1ST HIGH VALUE IS   0.15247  ON 97120207: AT (  565900.00,  4191900.00,    161.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.15239  ON 97052506: AT (  565900.00,  4191900.00,    161.00,    0.00) DC     NA
PRINT   HIGH  1ST HIGH VALUE IS    0.10324  ON 97092307: AT (  564673.81,  4191519.00,     63.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.10065  ON 97101505: AT (  564673.81,  4191519.00,     63.00,    0.00) DC     NA
COMBUST HIGH  1ST HIGH VALUE IS    0.13291  ON 97101424: AT (  565600.00,  4192200.00,    158.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.13289  ON 97092804: AT (  565600.00,  4192200.00,    158.00,    0.00) DC     NA
HAZMAT  HIGH  1ST HIGH VALUE IS    0.01878  ON 97070102: AT (  564976.62,  4191271.75,     73.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.01867  ON 97101304: AT (  564976.62,  4191271.75,     73.00,    0.00) DC     NA
PAINT   HIGH  1ST HIGH VALUE IS    0.00042  ON 97052803: AT (  564842.69,  4191950.00,     83.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.00041  ON 97051802: AT (  564842.69,  4191950.00,     83.00,    0.00) DC     NA
ALL_LABS HIGH  1ST HIGH VALUE IS   0.07874  ON 97082702: AT (  565654.19,  4191781.25,    118.00,    0.00) DC     NA
        HIGH  2ND HIGH VALUE IS    0.07372  ON 97101523: AT (  565654.19,  4191781.25,    118.00,    0.00) DC     NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh Sensitive Receptors                    ***
*** Model Executed on 02/04/04 at 17:55:04 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Acute-Sensitive.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Acute-Sensitive.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc

      Number of sources -         97
Number of source groups -         26
    Number of receptors -        259


                              *** POINT SOURCE DATA ***


           NUMBER EMISSION RATE                 BASE    STACK   STACK   STACK    STACK    BUILDING EMISSION RATE
  SOURCE   PART.  (GRAMS/SEC)    X        Y      ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER EXISTS   SCALAR VARY
    ID     CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC)  (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8    0   0.42700E-06  564704.4 4191782.8   66.8   31.70  293.15    7.12     0.19    YES
  NWAF9       0   0.59100E-05  564718.8 4191791.2   66.8   29.57  293.15   16.48     0.74    YES
  WHSTK10     0   0.42700E-06  564724.4 4191826.0   66.8    8.60  293.15    7.12     0.34    YES
  MHSTK1      0   0.56100E-06  564794.4 4191795.8   74.8    7.61  293.15   17.25     0.34    YES
  MHSTK2      0   0.56100E-06  564798.6 4191843.0   74.8   10.89  293.15   17.25     0.29    YES
  MHSTK3      0   0.56100E-06  564794.1 4191843.0   74.8   10.89  293.15   17.25     0.48    YES
  MHSTK4      0   0.56100E-06  564800.9 4191787.2   74.8   15.61  293.15   17.25     0.33    YES
  MHSTK6      0   0.56100E-06  564801.3 4191808.2   74.8   10.94  293.15   17.25     0.34    YES
  KHSTK1      0   0.91800E-05  564761.1 4191879.8   72.7   18.45  293.15    1.28     2.76    YES
  KHSTK2      0   0.91800E-05  564759.4 4191891.8   72.7   18.45  293.15    1.28     2.76    YES
  KHSTK3      0   0.91800E-05  564732.4 4191877.5   72.7   18.45  293.15    1.28     2.76    YES
  KHSTK4      0   0.91800E-05  564731.4 4191889.0   72.7   18.45  293.15    1.28     2.76    YES
  BHSTK1      0   0.30000E-05  564678.9 4191889.0   67.4   27.85  293.15    2.78     1.26    YES
  BHSTK2      0   0.30000E-05  564675.0 4191896.8   67.4   29.68  293.15    2.78     1.26    YES
  BHSTK3      0   0.30000E-05  564704.5 4191898.0   67.4   29.68  293.15    2.78     1.26    YES
  BHSTK4      0   0.30000E-05  564707.4 4191887.8   67.4   33.34  293.15    2.78     0.37    YES
  BHSTK5      0   0.30000E-05  564691.6 4191888.0   67.4   33.34  293.15    2.78     0.37    YES
  VLSBSTK1    0   0.87700E-05  564933.6 4191633.2   64.4   27.04  293.15    3.97     1.22    YES
  VLSBSTK2    0   0.87700E-05  564954.0 4191566.5   64.4   27.04  293.15    3.97     1.22    YES
  VLSBSTK3    0   0.87700E-05  565051.3 4191594.8   64.4   27.04  293.15    3.97     1.22    YES
  VLSBSTK4    0   0.87700E-05  565030.6 4191662.2   64.4   27.04  293.15    3.97     1.22    YES
  LSASTK1     0   0.11400E-04  564892.2 4191637.2   64.4   28.31  293.15    5.18     1.22    YES
  LSASTK2     0   0.11400E-04  564875.9 4191632.8   64.4   28.31  293.15    5.18     1.22    YES
  LSASTK3     0   0.11400E-04  564907.6 4191580.5   64.4   28.31  293.15    5.18     1.22    YES
  LSASTK4     0   0.11400E-04  564897.1 4191578.0   64.4   28.31  293.15    5.18     1.22    YES
  LSASTK5     0   0.11400E-04  564908.6 4191576.2   64.4   28.31  293.15    5.18     1.22    YES
  LSASTK6     0   0.11400E-04  564899.1 4191573.5   64.4   28.31  293.15    5.18     1.22    YES
  LSASTK7     0   0.11400E-04  564900.8 4191572.2   64.4   28.31  293.15    5.18     0.30    YES
  LEWHSTK1    0   0.17700E-05  565605.8 4191772.0  106.7   12.80  293.15    3.11     0.36    YES
  LEWHSTK2    0   0.17700E-05  565591.5 4191786.0  106.7   12.80  293.15    3.11     0.36    YES
  LEWHSTK3    0   0.17700E-05  565585.9 4191792.2  106.7   12.80  293.15    3.11     0.36    YES
  LEWHSTK4    0   0.17700E-05  565583.1 4191800.0  106.7   12.80  293.15    3.11     0.36    YES
  LEWHSTK5    0   0.17700E-05  565598.1 4191787.8  106.7   12.80  293.15    3.11     0.36    YES
  LEWHSTK6    0   0.17700E-05  565619.4 4191775.8  106.7   12.80  293.15    3.11     0.36    YES
  LEWHSTK7    0   0.17700E-05  565608.8 4191787.2  106.7   12.80  293.15    3.11     0.36    YES
  LEWHSTK8    0   0.17700E-05  565597.6 4191800.5  106.7   12.80  293.15    3.11     0.30    YES
  LEWHSTK9    0   0.17700E-05  565593.3 4191808.2  106.7   12.80  293.15    3.11     0.36    YES
  LATHSTK1    0   0.75900E-05  565555.1 4191799.2  104.6   42.37  293.15    6.28     0.34    YES
  LATHSTK2    0   0.75900E-05  565561.1 4191812.0  104.6   36.88  293.15    6.28     0.70    YES
  LATHSTK3    0   0.75900E-05  565531.6 4191800.2  104.6   36.88  293.15    6.28     0.48    YES


                              *** POINT SOURCE DATA ***


           NUMBER EMISSION RATE                 BASE    STACK   STACK   STACK    STACK    BUILDING EMISSION RATE
  SOURCE   PART.  (GRAMS/SEC)    X        Y      ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER EXISTS   SCALAR VARY
    ID     CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC)  (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  LATHSTK4    0   0.75900E-05  565515.1 4191799.5  104.6   37.19  293.15    6.28     0.96    YES
  LATHSTK5    0   0.75900E-05  565539.7 4191794.2  104.6   42.37  293.15    6.28     0.70    YES
  LATHSTK6    0   0.75900E-05  565527.3 4191776.0  104.6   38.40  293.15    6.28     0.74    YES
  LATHSTK7    0   0.75900E-05  565544.9 4191781.5  104.6   38.40  293.15    6.28     0.31    YES
  LATHSTK8    0   0.75900E-05  565562.3 4191787.0  104.6   38.40  293.15    6.28     0.70    YES
  TANHSTKA    0   0.65400E-05  565492.1 4191791.0  100.6   39.32  293.15    2.94     1.69    YES
  TANHSTKB    0   0.65400E-05  565496.8 4191794.0  100.6   39.32  293.15    2.94     1.69    YES
  TANHSTKC    0   0.65400E-05  565494.1 4191787.2  100.6   39.32  293.15    2.94     1.69    YES
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 TANHSTKD       0   0.65400E-05  565499.1 4191788.2    100.6   39.32   293.15    2.94     1.69      YES
 HHSTKA         0   0.71400E-05  565540.8 4191749.5    103.6   20.12   293.15    4.15     1.52      YES
 HHSTKB         0   0.71400E-05  565565.6 4191756.8    103.6   20.12   293.15    4.15     1.52      YES
 HHSTKC         0   0.71400E-05  565576.8 4191717.8    103.6   20.12   293.15    4.15     1.52      YES
 HHSTKD         0   0.71400E-05  565553.2 4191710.5    103.6   20.12   293.15    4.15     1.52      YES
 HHSTKE         0   0.71400E-05  565543.4 4191746.5    103.6   20.12   293.15    4.15     0.81      YES
 STHSTK1        0   0.27600E-06  565530.3 4191891.8    112.8   13.87   293.15    2.17     0.27      YES
 STHSTK2        0   0.27600E-06  565522.0 4191918.2    112.8   13.87   293.15    2.17     0.34      YES
 STHSTK3        0   0.27600E-06  565537.9 4191871.0    112.8   17.56   293.15    2.17     0.34      YES
 STHSTK4        0   0.27600E-06  565529.5 4191871.8    112.8   13.87   293.15    2.17     0.34      YES
 STHSTK5        0   0.27600E-06  565530.9 4191870.0    112.8   14.02   293.15    2.17     0.34      YES
 STHSTK6        0   0.27600E-06  565530.1 4191869.5    112.8   14.02   293.15    2.17     0.27      YES
 STHSTK7        0   0.27600E-06  565532.6 4191866.5    112.8   14.02   293.15    2.17     0.39      YES
 STHSTK8        0   0.27600E-06  565538.2 4191864.0    112.8   14.02   293.15    2.17     0.27      YES
 STHSTK9        0   0.27600E-06  565525.9 4191880.5    112.8   14.02   293.15    2.17     0.53      YES
 STHSTK11       0   0.27600E-06  565519.0 4191907.5    112.8   13.87   293.15    2.17     0.34      YES
 GHSTK1         0   0.86700E-06  565507.1 4191756.0    103.6   16.06   293.15    5.92     0.30      YES
 GHSTK2         0   0.86700E-06  565510.6 4191744.8    103.6   16.06   293.15    5.92     0.25      YES
 GHSTK3         0   0.86700E-06  565512.4 4191739.0    103.6   16.37   293.15    5.92     0.30      YES
 GHSTK4         0   0.86700E-06  565514.7 4191737.8    103.6   15.91   293.15    5.92     0.31      YES
 GHSTK5         0   0.86700E-06  565514.9 4191732.2    103.6   16.06   293.15    5.92     0.30      YES
 GHSTK6         0   0.86700E-06  565500.2 4191755.2    103.6   16.12   293.15    5.92     0.30      YES
 GHSTK7         0   0.86700E-06  565501.1 4191753.0    103.6   16.37   293.15    5.92     0.84      YES
 GHSTK8         0   0.86700E-06  565503.7 4191744.2    103.6   16.00   293.15    5.92     0.30      YES
 GHSTK9         0   0.86700E-06  565505.2 4191740.2    103.6   16.37   293.15    5.92     0.26      YES
 GHSTK10        0   0.86700E-06  565506.9 4191735.2    103.6   16.06   293.15    5.92     0.30      YES
 GHSTK11        0   0.86700E-06  565509.7 4191728.2    103.6   16.22   293.15    5.92     0.30      YES
 GHSTK12        0   0.86700E-06  565509.0 4191725.5    103.6   16.06   293.15    5.92     0.30      YES
 GHSTK13        0   0.86700E-06  565516.9 4191725.5    103.6   15.91   293.15    5.92     0.40      YES
 CHSTK1         0   0.38000E-05  565393.9 4192008.8    110.3   26.85   293.15    2.00     1.00      YES
 DHSTK1         0   0.95700E-06  565329.4 4191982.0    107.2   16.36   293.15    2.00     1.00      YES
 HESSTK1        0   0.41400E-05  565234.6 4191926.2     98.2   15.39   293.15    2.00     1.00      YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
HILSTK1	0	0.20500E-04	564874.6	4191815.0	80.4	14.96	293.15	2.00	1.00	YES	
MULSTK1	0	0.26400E-07	564779.7	4191737.8	74.4	17.24	293.15	2.00	1.00	YES	
WELSTK1	0	0.15600E-06	564933.7	4191795.2	81.7	5.89	293.15	2.00	1.00	YES	
PRINTA	0	0.50300E-05	564584.7	4191553.2	60.0	8.91	293.15	2.70	0.84	YES	
PRINTB	0	0.50300E-05	564614.4	4191520.8	60.0	8.91	293.15	2.70	0.84	YES	
PRINTC	0	0.50300E-05	564643.1	4191525.5	60.0	8.91	293.15	2.70	0.60	YES	
COGEN	0	0.19000E-02	564876.0	4191492.0	71.9	12.77	430.37	10.45	2.28	YES	
BOILER#2	0	0.88000E-04	564863.6	4191499.5	71.9	8.80	522.82	7.97	1.52	YES	
BOILER#3	0	0.86700E-04	564881.9	4191505.8	71.9	8.80	554.11	10.53	1.52	YES	
BOILER#4	0	0.86700E-04	564885.8	4191495.8	71.9	8.80	566.65	12.63	1.52	YES	
POURING	0	0.14600E-04	564847.8	4191467.0	70.1	14.94	293.15	4.62	0.56	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.56100E-06	564821.2	4191842.8	74.8	6.95	0.07	2.42	
STHSTK10	0	0.27600E-06	565522.6	4191880.8	112.8	14.02	0.29	5.39	
PAINT1	0	0.80600E-07	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.80600E-07	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.80600E-07	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.80600E-07	564865.7	4191751.0	77.0	4.57	3.54	4.25	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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  GROUP ID                                       SOURCE IDs


  ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

           KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
 LSASTK2 ,
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            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,

            STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,

            GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

            WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,

            PAINT4  ,

   WH       WHSTK1_8, WHSTK10 ,

   NWAF     NWAF9   ,

   MH       MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

   KH       KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

   BH       BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

   VLSB     VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

   LSA      LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

   LEW      LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,

   LAT      LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

   TAN      TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

   HH       HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

                            *** SOURCE IDs DEFINING SOURCE GROUPS ***
   GROUP ID                                     SOURCE IDs

   STH      STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 , STHSTK5 , STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10,

   GH       GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
GHSTK12 ,

            GHSTK13 ,

   CH       CHSTK1  ,

   DH       DHSTK1  ,

   HES      HESSTK1 ,

   HIL      HILSTK1 ,
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   MUL       MULSTK1 ,

   WEL       WELSTK1 ,

   NOENGINE  WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
             KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
             LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
             LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
             TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
             STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
             GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
             WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
             PAINT4  ,

   PRINT     PRINTA  , PRINTB  , PRINTC  ,

   COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
    GROUP ID                                     SOURCE IDs


   HAZMAT    POURING ,

   PAINT     PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

   ALL_LABS  WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
             KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
             LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
             LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
             TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
             STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
             GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
             WELSTK1 ,


                              *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***

                          ** CONC OF ACUTE    IN MICROGRAMS/M**3                        **
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                                      DATE                                                 NETWORK
GROUP ID                AVERAGE CONC  (YYMMDDHH)        RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
ALL     HIGH 1ST HIGH VALUE IS    0.12541 ON 97101402: AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.12501 ON 97071504: AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
WH      HIGH 1ST HIGH VALUE IS    0.00069 ON 97081224: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.00066 ON 97081704: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
NWAF    HIGH 1ST HIGH VALUE IS    0.00231 ON 97092804: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.00153 ON 97082302: AT (  564926.69,  4192158.75,    109.42,    0.00) DC     NA
MH      HIGH 1ST HIGH VALUE IS    0.00361 ON 97090823: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.00357 ON 97092803: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
KH      HIGH 1ST HIGH VALUE IS    0.01489 ON 97020707: AT (  564926.69,  4192158.75,    109.42,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.01337 ON 97032523: AT (  564591.56,  4192414.75,     83.82,    0.00) DC     NA
BH      HIGH 1ST HIGH VALUE IS    0.00458 ON 97101408: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.00453 ON 97103018: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
VLSB    HIGH 1ST HIGH VALUE IS    0.01098 ON 97050122: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.01053 ON 97101005: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
LSA     HIGH 1ST HIGH VALUE IS    0.03413 ON 97050521: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.03369 ON 97031521: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
LEW     HIGH 1ST HIGH VALUE IS    0.00714 ON 97060505: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.00594 ON 97031910: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
LAT     HIGH 1ST HIGH VALUE IS    0.01186 ON 97101709: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.01184 ON 97031909: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
TAN     HIGH 1ST HIGH VALUE IS    0.00854 ON 97082407: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.00845 ON 97020107: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
HH      HIGH 1ST HIGH VALUE IS    0.01308 ON 97101507: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.01305 ON 97101603: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
STH     HIGH 1ST HIGH VALUE IS    0.00145 ON 97060505: AT (  565700.06,  4191711.25,    108.20,    0.00) DC     NA
        HIGH 2ND HIGH VALUE IS    0.00130 ON 97091705: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA


                          *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                  ** CONC OF ACUTE    IN MICROGRAMS/M**3                        **

                                      DATE                                                 NETWORK
GROUP ID                AVERAGE CONC  (YYMMDDHH)        RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
GH       HIGH 1ST HIGH VALUE IS    0.00830 ON 97100923: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.00732 ON 97030609: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
CH       HIGH 1ST HIGH VALUE IS    0.00108 ON 97031802: AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.00107 ON 97020706: AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
DH       HIGH 1ST HIGH VALUE IS    0.00055 ON 97041322: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.00054 ON 97032104: AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
HES      HIGH 1ST HIGH VALUE IS    0.00119 ON 97010409: AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.00119 ON 97042020: AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
HIL      HIGH 1ST HIGH VALUE IS    0.03911 ON 97032506: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.03783 ON 97042924: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
MUL      HIGH 1ST HIGH VALUE IS    0.00003 ON 97122705: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.00002 ON 97071504: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
WEL      HIGH 1ST HIGH VALUE IS    0.00015 ON 97122009: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.00010 ON 97020520: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
NOENGINE HIGH 1ST HIGH VALUE IS    0.12541 ON 97101402: AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.12501 ON 97071504: AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
PRINT    HIGH 1ST HIGH VALUE IS    0.02177 ON 97082102: AT (  564933.25,  4191275.25,     71.32,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.02175 ON 97032922: AT (  564933.25,  4191275.25,     71.32,    0.00) DC     NA
COMBUST  HIGH 1ST HIGH VALUE IS    0.11257 ON 97092424: AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.11253 ON 97051804: AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
HAZMAT   HIGH 1ST HIGH VALUE IS    0.01954 ON 97090422: AT (  564933.25,  4191275.25,     71.32,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.01865 ON 97020104: AT (  564933.25,  4191275.25,     71.32,    0.00) DC     NA
PAINT    HIGH 1ST HIGH VALUE IS    0.00036 ON 97122005: AT (  564933.25,  4191275.25,     71.32,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.00035 ON 97102603: AT (  564933.25,  4191275.25,     71.32,    0.00) DC     NA
ALL_LABS HIGH 1ST HIGH VALUE IS    0.04943 ON 97042924: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         HIGH 2ND HIGH VALUE IS    0.04896 ON 97032506: AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh - Cancer Risk                        ***
*** Model Executed on 02/04/04 at 17:58:31 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Can.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Can.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc

      Number of sources -        126
Number of source groups -         27
    Number of receptors -       1431



                              *** POINT SOURCE DATA ***


            NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK      STACK   BUILDING EMISSION RATE
   SOURCE   PART.  (GRAMS/SEC)     X        Y        ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
     ID     CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8    0   0.44700E-04  564704.4 4191782.8   66.8    31.70   293.15    7.12     0.19      YES
  NWAF9       0   0.60100E-03  564718.8 4191791.2   66.8    29.57   293.15   16.48     0.74      YES
  WHSTK10     0   0.44700E-04  564724.4 4191826.0   66.8     8.60   293.15    7.12     0.34      YES
  MHSTK1      0   0.24000E-03  564794.4 4191795.8   74.8     7.61   293.15   17.25     0.34      YES
  MHSTK2      0   0.24000E-03  564798.6 4191843.0   74.8    10.89   293.15   17.25     0.29      YES
  MHSTK3      0   0.24000E-03  564794.1 4191843.0   74.8    10.89   293.15   17.25     0.48      YES
  MHSTK4      0   0.24000E-03  564800.9 4191787.2   74.8    15.61   293.15   17.25     0.33      YES
  MHSTK6      0   0.24000E-03  564801.3 4191808.2   74.8    10.94   293.15   17.25     0.34      YES
  KHSTK1      0   0.33000E-02  564761.1 4191879.8   72.7    18.45   293.15    1.28     2.76      YES
  KHSTK2      0   0.33000E-02  564759.4 4191891.8   72.7    18.45   293.15    1.28     2.76      YES
  KHSTK3      0   0.33000E-02  564732.4 4191877.5   72.7    18.45   293.15    1.28     2.76      YES
  KHSTK4      0   0.33000E-02  564731.4 4191889.0   72.7    18.45   293.15    1.28     2.76      YES
  BHSTK1      0   0.45600E-03  564678.9 4191889.0   67.4    27.85   293.15    2.78     1.26      YES
  BHSTK2      0   0.45600E-03  564675.0 4191896.8   67.4    29.68   293.15    2.78     1.26      YES
  BHSTK3      0   0.45600E-03  564704.5 4191898.0   67.4    29.68   293.15    2.78     1.26      YES
  BHSTK4      0   0.45600E-03  564707.4 4191887.8   67.4    33.34   293.15    2.78     0.37      YES
  BHSTK5      0   0.45600E-03  564691.6 4191888.0   67.4    33.34   293.15    2.78     0.37      YES
  VLSBSTK1    0   0.77100E-03  564933.6 4191633.2   64.4    27.04   293.15    3.97     1.22      YES
  VLSBSTK2    0   0.77100E-03  564954.0 4191566.5   64.4    27.04   293.15    3.97     1.22      YES
  VLSBSTK3    0   0.77100E-03  565051.3 4191594.8   64.4    27.04   293.15    3.97     1.22      YES
  VLSBSTK4    0   0.77100E-03  565030.6 4191662.2   64.4    27.04   293.15    3.97     1.22      YES
  LSASTK1     0   0.16600E-02  564892.2 4191637.2   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK2     0   0.16600E-02  564875.9 4191632.8   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK3     0   0.16600E-02  564907.6 4191580.5   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK4     0   0.16600E-02  564897.1 4191578.0   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK5     0   0.16600E-02  564908.6 4191576.2   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK6     0   0.16600E-02  564899.1 4191573.5   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK7     0   0.16600E-02  564900.8 4191572.2   64.4    28.31   293.15    5.18     0.30      YES
  LEWHSTK1    0   0.63700E-03  565605.8 4191772.0  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK2    0   0.63700E-03  565591.5 4191786.0  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK3    0   0.63700E-03  565585.9 4191792.2  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK4    0   0.63700E-03  565583.1 4191800.0  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK5    0   0.63700E-03  565598.1 4191787.8  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK6    0   0.63700E-03  565619.4 4191775.8  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK7    0   0.63700E-03  565608.8 4191787.2  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK8    0   0.63700E-03  565597.6 4191800.5  106.7    12.80   293.15    3.11     0.30      YES
  LEWHSTK9    0   0.63700E-03  565593.3 4191808.2  106.7    12.80   293.15    3.11     0.36      YES
  LATHSTK1    0   0.27200E-02  565555.1 4191799.2  104.6    42.37   293.15    6.28     0.34      YES
  LATHSTK2    0   0.27200E-02  565561.1 4191812.0  104.6    36.88   293.15    6.28     0.70      YES
  LATHSTK3    0   0.27200E-02  565531.6 4191800.2  104.6    36.88   293.15    6.28     0.48      YES


                              *** POINT SOURCE DATA ***


            NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK      STACK   BUILDING EMISSION RATE
   SOURCE   PART.  (GRAMS/SEC)     X        Y        ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
     ID     CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
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  LATHSTK4    0   0.27200E-02  565515.1 4191799.5  104.6    37.19   293.15    6.28     0.96      YES
  LATHSTK5    0   0.27200E-02  565539.7 4191794.2  104.6    42.37   293.15    6.28     0.70      YES
  LATHSTK6    0   0.27200E-02  565527.3 4191776.0  104.6    38.40   293.15    6.28     0.74      YES
  LATHSTK7    0   0.27200E-02  565544.9 4191781.5  104.6    38.40   293.15    6.28     0.31      YES
  LATHSTK8    0   0.27200E-02  565562.3 4191787.0  104.6    38.40   293.15    6.28     0.70      YES
  TANHSTKA    0   0.23500E-02  565492.1 4191792.1  100.6    39.32   293.15    2.94     1.69      YES
  TANHSTKB    0   0.23500E-02  565496.8 4191794.0  100.6    39.32   293.15    2.94     1.69      YES
  TANHSTKC    0   0.23500E-02  565494.1 4191787.2  100.6    39.32   293.15    2.94     1.69      YES
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TANHSTKD       0   0.23500E-02  565499.1 4191788.2  100.6   39.32  293.15    2.94     1.69      YES
HHSTKA         0   0.26000E-02  565540.8 4191749.5  103.6   20.12  293.15    4.15     1.52      YES
HHSTKB         0   0.26000E-02  565565.6 4191756.8  103.6   20.12  293.15    4.15     1.52      YES
HHSTKC         0   0.26000E-02  565576.8 4191717.8  103.6   20.12  293.15    4.15     1.52      YES
HHSTKD         0   0.26000E-02  565553.2 4191710.5  103.6   20.12  293.15    4.15     1.52      YES
HHSTKE         0   0.26000E-02  565543.4 4191746.5  103.6   20.12  293.15    4.15     0.81      YES
STHSTK1        0   0.10700E-03  565530.3 4191891.8  112.8   13.87  293.15    2.17     0.27      YES
STHSTK2        0   0.10700E-03  565522.0 4191918.2  112.8   13.87  293.15    2.17     0.34      YES
STHSTK3        0   0.10700E-03  565537.9 4191871.8  112.8   17.56  293.15    2.17     0.34      YES
STHSTK4        0   0.10700E-03  565529.5 4191871.8  112.8   13.87  293.15    2.17     0.34      YES
STHSTK5        0   0.10700E-03  565530.9 4191870.0  112.8   14.02  293.15    2.17     0.34      YES
STHSTK6        0   0.10700E-03  565530.1 4191869.5  112.8   14.02  293.15    2.17     0.27      YES
STHSTK7        0   0.10700E-03  565532.6 4191866.5  112.8   14.02  293.15    2.17     0.39      YES
STHSTK8        0   0.10700E-03  565538.2 4191864.0  112.8   14.02  293.15    2.17     0.27      YES
STHSTK9        0   0.10700E-03  565525.9 4191880.5  112.8   14.02  293.15    2.17     0.53      YES
STHSTK11       0   0.10700E-03  565519.0 4191907.5  112.8   13.87  293.15    2.17     0.34      YES
GHSTK1         0   0.36700E-03  565507.1 4191756.0  103.6   16.06  293.15    5.92     0.30      YES
GHSTK2         0   0.36700E-03  565510.6 4191744.8  103.6   16.06  293.15    5.92     0.25      YES
GHSTK3         0   0.36700E-03  565512.4 4191739.0  103.6   16.37  293.15    5.92     0.30      YES
GHSTK4         0   0.36700E-03  565514.7 4191737.8  103.6   15.91  293.15    5.92     0.31      YES
GHSTK5         0   0.36700E-03  565514.9 4191732.2  103.6   16.06  293.15    5.92     0.30      YES
GHSTK6         0   0.36700E-03  565500.2 4191755.2  103.6   16.12  293.15    5.92     0.30      YES
GHSTK7         0   0.36700E-03  565501.1 4191753.0  103.6   16.37  293.15    5.92     0.84      YES
GHSTK8         0   0.36700E-03  565503.7 4191744.2  103.6   16.00  293.15    5.92     0.30      YES
GHSTK9         0   0.36700E-03  565505.2 4191740.2  103.6   16.37  293.15    5.92     0.26      YES
GHSTK10        0   0.36700E-03  565506.9 4191735.2  103.6   16.06  293.15    5.92     0.30      YES
GHSTK11        0   0.36700E-03  565509.7 4191728.2  103.6   16.22  293.15    5.92     0.30      YES
GHSTK12        0   0.36700E-03  565509.0 4191725.5  103.6   16.06  293.15    5.92     0.30      YES
GHSTK13        0   0.36700E-03  565516.9 4191725.8  103.6   15.91  293.15    5.92     0.40      YES
CHSTK1         0   0.86900E-04  565393.9 4192008.8  110.3   26.85  293.15    2.00     1.00      YES
DHSTK1         0   0.95300E-04  565329.4 4191982.0  107.2   16.36  293.15    2.00     1.00      YES
HESSTK1        0   0.73300E-03  565234.6 4191926.2   98.2   15.39  293.15    2.00     1.00      YES
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                        *** POINT SOURCE DATA ***


            NUMBER EMISSION RATE                 BASE    STACK    STACK    STACK      STACK    BUILDING EMISSION RATE
   SOURCE   PART.  (GRAMS/SEC)    X        Y      ELEV.  HEIGHT   TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
     ID     CATS.             (METERS) (METERS) (METERS)(METERS) (DEG.K)  (M/SEC)  (METERS)              BY
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   HILSTK1       0   0.72100E-03  564874.6 4191815.0   80.4   14.96  293.15    2.00     1.00      YES
   MULSTK1       0   0.53300E-05  564779.7 4191737.8   74.4   17.24  293.15    2.00     1.00      YES
   WELSTK1       0   0.13600E-04  564933.7 4191795.2   81.7    5.89  293.15    2.00     1.00      YES
   PRINTA        0   0.86300E-04  564584.7 4191553.2   60.0    8.91  293.15    2.70     0.84      YES
   PRINTB        0   0.86300E-04  564614.4 4191520.8   60.0    8.91  293.15    2.70     0.84      YES
   PRINTC        0   0.86300E-04  564643.1 4191525.5   60.0    8.91  293.15    2.70     0.60      YES
   COGEN         0   0.97700E+00  564876.0 4191492.0   71.9   12.77  430.37   10.45     2.28      YES
   BOILER#2      0   0.12280E-01  564863.6 4191499.5   71.9    8.80  522.82    7.97     1.52      YES
   BOILER#3      0   0.47000E-01  564881.9 4191505.8   71.9    8.80  554.11   10.53     1.52      YES
   BOILER#4      0   0.56800E-01  564885.8 4191495.8   71.9    8.80  566.65   12.63     1.52      YES
   POURING       0   0.12800E-02  564847.8 4191467.0   70.1   14.94  293.15    4.62     0.56      YES
   ENG_62        0   0.47241E-02  565567.6 4191086.5   85.1    4.57  800.37  146.01     0.13      NO
   ENG_63        0   0.23600E-02  564668.2 4191897.5   70.2    4.57  799.85  152.00     0.13      NO
   ENG_64        0   0.72300E-03  565452.9 4191687.0   98.2    3.05  817.07   58.47     0.08      YES
   ENG_105       0   0.74200E-01  564939.1 4191457.8   71.1    4.57  810.96   70.10     0.23      YES
   ENG_106       0   0.62205E-01  564991.6 4191614.5   73.6   30.48  810.96   70.10     0.20      YES
   ENG_107       0   0.49776E-01  564767.4 4191906.8   76.2    0.00  810.96   70.10     0.18      YES
   ENG_108       0   0.49776E-01  564930.6 4191564.2   68.8    7.62  810.96   70.10     0.18      YES
   ENG_109       0   0.16596E-01  565615.8 4191801.2  111.7    3.05  810.96   70.10     0.15      YES
   ENG_110       0   0.82858E-02  564655.9 4191874.5   68.4    4.57  810.96   70.10     0.10      YES
   ENG_111       0   0.23810E-01  565091.1 4191757.8   78.9    3.05  810.96   70.10     0.11      YES
   ENG_112       0   0.20714E-01  565542.8 4191208.2   85.7    3.05  810.93   70.10     0.10      NO
   ENG_113       0   0.20714E-01  565673.6 4191194.8   92.0    3.05  810.93   70.10     0.10      NO
   ENG_114       0   0.20714E-01  565601.4 4191014.2   86.0    3.05  810.93   70.10     0.10      NO
   ENG_115       0   0.20714E-01  565702.9 4190991.8   91.4    3.05  810.93   70.10     0.10      NO
   ENG_116       0   0.20714E-01  564775.8 4191177.5   63.2    4.57  810.93   70.10     0.10      NO
   ENG_117       0   0.20714E-01  565575.9 4191609.0   99.3    3.05  810.96   70.10     0.10      YES
   ENG_118       0   0.98935E-02  564654.8 4191890.5   68.6    4.57  810.96   70.10     0.13      YES
   ENG_119       0   0.14531E-01  564728.8 4191771.0   70.5    4.57  810.96   70.10     0.08      YES
   ENG_120       0   0.10450E-01  565318.0 4191422.5   86.1    3.05  810.96   70.10     0.08      YES
   ENG_121       0   0.10388E-01  565926.2 4191443.0  118.9    3.05  810.93   70.10     0.08      NO
   ENG_123       0   0.12800E-02  565259.4 4191652.8   88.3    3.05  810.96   70.10     0.08      YES
   ENG_125       0   0.41058E-02  564811.2 4191460.8   67.7    3.05  810.96   70.10     0.08      YES
   ENG_126       0   0.33143E-02  565137.9 4191441.5   77.6    0.00  810.96   70.10     0.08      YES
   ENG_128       0   0.41429E-02  565469.2 4191955.2  109.8    3.05  810.96   70.10     0.05      YES
   ENG_129       0   0.41429E-02  565383.1 4191740.2   97.0    2.44  810.96   70.10     0.05      YES
   ENG_130       0   0.25692E-02  565533.3 4191713.5   98.9    2.44  815.40  134.54     0.08      YES
   ENG_131       0   0.72350E-03  564970.3 4191484.2   71.3    1.83  817.07   58.47     0.08      YES
   ENG_132       0   0.72350E-03  564800.3 4191781.8   74.3    1.83  817.07   58.47     0.08      YES
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   E134_133     0   0.18674E-01  565380.0 4191939.2   104.3    3.05   769.29   135.05      0.13      YES
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                            *** VOLUME SOURCE DATA ***

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             NUMBER EMISSION RATE              BASE    RELEASE   INIT.    INIT.   EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)    X        Y    ELEV.   HEIGHT    SY       SZ    SCALAR VARY
     ID      CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)     BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   MHSTK5      0   0.24000E-03  564821.2 4191842.8   74.8    6.95     0.07     2.42
   STHSTK10    0   0.10700E-03  565522.6 4191880.8  112.8   14.02     0.29     5.39
   PAINT1      0   0.26600E-03  564917.1 4191432.5   72.0    4.57     3.54     4.25
   PAINT2      0   0.26600E-03  565322.7 4191834.8   96.0    4.57     3.54     4.25
   PAINT3      0   0.26600E-03  565541.5 4191525.8   97.0    4.57     3.54     4.25
   PAINT4      0   0.26600E-03  564865.7 4191751.0   77.0    4.57     3.54     4.25
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                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

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   GROUP ID                                   SOURCE IDs


    ALL      WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
             KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
             LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
             LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
             TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
             STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
             GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
             WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
             PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
             ENG_113 , ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 ,
ENG_126 ,
             ENG_128 , ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

    WH       WHSTK1_8, WHSTK10 ,

    NWAF     NWAF9   ,

    MH       MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

    KH       KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

    BH       BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

    VLSB     VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

    LSA      LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

    LEW      LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,
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   LAT        LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
    GROUP ID                                          SOURCE IDs


    TAN        TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

    HH         HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

    STH        STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 , STHSTK5 , STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10,

    GH         GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
           GHSTK12 ,

               GHSTK13 ,

    CH         CHSTK1  ,

    DH         DHSTK1  ,

    HES        HESSTK1 ,

    HIL        HILSTK1 ,

    MUL        MULSTK1 ,

    WEL        WELSTK1 ,

    NOENGINE WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
           ,

               KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
           LSASTK2 ,

               LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
           LEWHSTK7,

               LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
           TANHSTKB,

               TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
           STHSTK5 ,

               STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
           ,

               GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
           MULSTK1 ,

               WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
           ,

               PAINT4  ,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
    GROUP ID                                          SOURCE IDs


    ENGINE     ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
           ENG_113 ,

               ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
           ENG_128 ,
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          ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

  PRINT     PRINTA , PRINTB , PRINTC ,

  COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

  HAZMAT    POURING ,

  PAINT     PAINT1 , PAINT2 , PAINT3 , PAINT4 ,

  ALL_LABS  WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
          STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
          GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
          WELSTK1 ,


                            *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


                         ** CONC OF CANCER   IN MICROGRAMS/M**3                      **

                                                                                                      NETWORK
         GROUP ID                     AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
         - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

         ALL     1ST HIGHEST VALUE IS     4.34956 AT (  564700.00,  4192000.00,    76.00,     0.00)  DC      NA
                 2ND HIGHEST VALUE IS     4.05439 AT (  564892.25,  4191959.00,    84.00,     0.00)  DC      NA
                 3RD HIGHEST VALUE IS     3.86120 AT (  565800.00,  4191200.00,   100.00,     0.00)  DC      NA
                 4TH HIGHEST VALUE IS     3.79990 AT (  564941.88,  4191967.00,    90.00,     0.00)  DC      NA
                 5TH HIGHEST VALUE IS     3.58542 AT (  564991.81,  4191975.00,    93.00,     0.00)  DC      NA
                 6TH HIGHEST VALUE IS     3.53583 AT (  566100.00,  4191400.00,   149.00,     0.00)  DC      NA
                 7TH HIGHEST VALUE IS     3.52097 AT (  565000.00,  4192000.00,    98.00,     0.00)  DC      NA
                 8TH HIGHEST VALUE IS     3.49887 AT (  565700.00,  4191200.00,    93.00,     0.00)  DC      NA
                 9TH HIGHEST VALUE IS     3.46530 AT (  564800.00,  4192000.00,    81.00,     0.00)  DC      NA
                10TH HIGHEST VALUE IS     3.40565 AT (  565800.00,  4191000.00,    95.00,     0.00)  DC      NA


         WH      1ST HIGHEST VALUE IS     0.00268 AT (  564698.50,  4191908.75,    72.00,     0.00)  DC      NA
                 2ND HIGHEST VALUE IS     0.00263 AT (  564639.88,  4191852.00,    67.00,     0.00)  DC      NA
                 3RD HIGHEST VALUE IS     0.00258 AT (  564664.50,  4191903.50,    71.00,     0.00)  DC      NA
                 4TH HIGHEST VALUE IS     0.00247 AT (  564600.00,  4191900.00,    67.00,     0.00)  DC      NA
                 5TH HIGHEST VALUE IS     0.00231 AT (  564648.62,  4191891.75,    68.00,     0.00)  DC      NA
                 6TH HIGHEST VALUE IS     0.00189 AT (  564748.50,  4191916.75,    75.00,     0.00)  DC      NA
                 7TH HIGHEST VALUE IS     0.00135 AT (  564795.00,  4191930.25,    78.00,     0.00)  DC      NA
                 8TH HIGHEST VALUE IS     0.00103 AT (  564700.00,  4192000.00,    76.00,     0.00)  DC      NA
                 9TH HIGHEST VALUE IS     0.00098 AT (  564600.00,  4192000.00,    72.00,     0.00)  DC      NA
                10TH HIGHEST VALUE IS     0.00093 AT (  564500.00,  4191900.00,    65.00,     0.00)  DC      NA


         NWAF    1ST HIGHEST VALUE IS     0.00249 AT (  565000.00,  4192000.00,    98.00,     0.00)  DC      NA
                 2ND HIGHEST VALUE IS     0.00247 AT (  565141.94,  4191999.00,    97.00,     0.00)  DC      NA
                 3RD HIGHEST VALUE IS     0.00236 AT (  565241.19,  4192017.75,   102.00,     0.00)  DC      NA
                 4TH HIGHEST VALUE IS     0.00231 AT (  565191.50,  4192009.50,    97.00,     0.00)  DC      NA
                 5TH HIGHEST VALUE IS     0.00223 AT (  565289.25,  4192025.50,   107.00,     0.00)  DC      NA
                 6TH HIGHEST VALUE IS     0.00208 AT (  565090.81,  4191991.50,    96.00,     0.00)  DC      NA
                 7TH HIGHEST VALUE IS     0.00204 AT (  565339.88,  4192034.25,   108.00,     0.00)  DC      NA
                 8TH HIGHEST VALUE IS     0.00199 AT (  564900.00,  4192100.00,   102.00,     0.00)  DC      NA
                 9TH HIGHEST VALUE IS     0.00198 AT (  565100.00,  4192000.00,    96.00,     0.00)  DC      NA
                10TH HIGHEST VALUE IS     0.00196 AT (  565100.00,  4192100.00,   107.00,     0.00)  DC      NA
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                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***

                        ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                        NETWORK
GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MH       1ST HIGHEST VALUE IS    0.06988 AT (  564748.50,  4191916.75,     75.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.05740 AT (  564795.00,  4191930.25,     78.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.04863 AT (  564698.50,  4191908.75,     72.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.04761 AT (  564842.69,  4191950.00,     83.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.03585 AT (  564700.00,  4192000.00,     76.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.03441 AT (  564664.50,  4191903.50,     71.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.02884 AT (  564892.25,  4191959.00,     84.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.02844 AT (  564800.00,  4192000.00,     81.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.02494 AT (  564600.00,  4192000.00,     72.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.02409 AT (  564941.88,  4191967.00,     90.00,     0.00)  DC      NA

KH       1ST HIGHEST VALUE IS    0.26554 AT (  564842.69,  4191950.00,     83.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.25816 AT (  564700.00,  4192000.00,     76.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.22663 AT (  564800.00,  4192000.00,     81.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.21430 AT (  564892.25,  4191959.00,     84.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.20313 AT (  564600.00,  4192000.00,     72.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.18282 AT (  564991.81,  4191975.00,     93.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.17579 AT (  564941.88,  4191967.00,     90.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.15537 AT (  565000.00,  4192000.00,     98.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.14675 AT (  565042.31,  4191983.00,     93.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.14449 AT (  564800.00,  4192100.00,     92.00,     0.00)  DC      NA

BH       1ST HIGHEST VALUE IS    0.04734 AT (  564795.00,  4191930.25,     78.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.03695 AT (  564842.69,  4191950.00,     83.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.02970 AT (  564600.00,  4192000.00,     72.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.02815 AT (  564892.25,  4191959.00,     84.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.02339 AT (  564700.00,  4192000.00,     76.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.02336 AT (  564941.88,  4191967.00,     90.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.02165 AT (  564800.00,  4192000.00,     81.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.02085 AT (  564900.00,  4192000.00,     88.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.01868 AT (  565000.00,  4192000.00,     98.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.01820 AT (  564991.81,  4191975.00,     93.00,     0.00)  DC      NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***

                        ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                        NETWORK
GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


VLSB     1ST HIGHEST VALUE IS    0.02270 AT (  565226.19,  4191310.50,     81.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.02244 AT (  564795.00,  4191930.25,     78.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.02210 AT (  565200.00,  4191300.00,     80.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.02198 AT (  565176.31,  4191303.25,     79.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.02188 AT (  565577.06,  4191362.50,     93.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.02154 AT (  564842.69,  4191950.00,     83.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.02145 AT (  565276.06,  4191318.25,     82.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.02066 AT (  565326.25,  4191324.25,     84.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.02062 AT (  565626.50,  4191370.25,     95.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.02039 AT (  564748.50,  4191916.75,     75.00,     0.00)  DC      NA

LSA      1ST HIGHEST VALUE IS    0.07042 AT (  565176.31,  4191303.25,     79.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.07022 AT (  565577.06,  4191362.50,     93.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.06962 AT (  565376.81,  4191332.25,     87.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.06961 AT (  565127.75,  4191295.25,     77.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.06949 AT (  565077.25,  4191285.50,     76.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.06821 AT (  565200.00,  4191300.00,     80.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.06743 AT (  565226.19,  4191310.50,     81.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.06636 AT (  565326.25,  4191324.25,     84.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.06602 AT (  565426.81,  4191338.75,     88.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.06563 AT (  565626.50,  4191370.25,     95.00,     0.00)  DC      NA

LEW      1ST HIGHEST VALUE IS    0.09123 AT (  565475.12,  4192018.00,    118.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.07921 AT (  565460.56,  4192039.50,    117.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.07129 AT (  565438.25,  4192048.75,    117.00,     0.00)  DC      NA
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                  4TH HIGHEST VALUE IS     0.06439 AT (  565500.00,  4192100.00,      126.00,      0.00)  DC      NA
                  5TH HIGHEST VALUE IS     0.05506 AT (  566100.00,  4191600.00,      141.00,      0.00)  DC      NA
                  6TH HIGHEST VALUE IS     0.05221 AT (  565400.00,  4192100.00,      116.00,      0.00)  DC      NA
                  7TH HIGHEST VALUE IS     0.05199 AT (  565300.00,  4192300.00,      123.00,      0.00)  DC      NA
                  8TH HIGHEST VALUE IS     0.04762 AT (  565390.25,  4192042.25,      113.00,      0.00)  DC      NA
                  9TH HIGHEST VALUE IS     0.04488 AT (  565600.00,  4192100.00,      140.00,      0.00)  DC      NA
                 10TH HIGHEST VALUE IS     0.04368 AT (  566200.00,  4191600.00,      144.00,      0.00)  DC      NA



                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                           **

                                                                                         NETWORK
GROUP ID                            AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


LAT      1ST HIGHEST VALUE IS     0.10951 AT (  565475.12,  4192018.00,      118.00,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.10472 AT (  566200.00,  4191600.00,      144.00,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.09814 AT (  565460.56,  4192039.50,      117.00,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.09666 AT (  565438.25,  4192048.75,      117.00,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.09514 AT (  565390.25,  4192042.25,      113.00,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.09441 AT (  565600.00,  4192100.00,      140.00,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.09392 AT (  566100.00,  4191600.00,      141.00,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.09036 AT (  565339.88,  4192034.25,      108.00,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.08856 AT (  566200.00,  4191500.00,      156.00,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.08814 AT (  565800.00,  4192000.00,      178.00,      0.00)  DC      NA

TAN      1ST HIGHEST VALUE IS     0.05185 AT (  566100.00,  4191600.00,      141.00,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.04649 AT (  565475.12,  4192018.00,      118.00,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.04438 AT (  565289.25,  4192025.50,      107.00,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.04434 AT (  566200.00,  4191600.00,      144.00,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.04185 AT (  565390.25,  4192042.25,      113.00,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.04050 AT (  565438.25,  4192048.75,      117.00,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.03972 AT (  565460.56,  4192039.50,      117.00,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.03967 AT (  565600.00,  4192100.00,      140.00,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.03935 AT (  565339.88,  4192034.25,      108.00,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.03734 AT (  565500.00,  4192100.00,      126.00,      0.00)  DC      NA

HH       1ST HIGHEST VALUE IS     0.10735 AT (  566100.00,  4191600.00,      141.00,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.08100 AT (  566200.00,  4191600.00,      144.00,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.07321 AT (  566200.00,  4191500.00,      156.00,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.07099 AT (  565475.12,  4192018.00,      118.00,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.07090 AT (  565289.25,  4192025.50,      107.00,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.07072 AT (  565600.00,  4192100.00,      140.00,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.06973 AT (  565339.88,  4192034.25,      108.00,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.06819 AT (  566100.00,  4191400.00,      149.00,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.06698 AT (  565390.25,  4192042.25,      113.00,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.06389 AT (  565460.56,  4192039.50,      117.00,      0.00)  DC      NA



                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                           **

                                                                                         NETWORK
GROUP ID                            AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


STH      1ST HIGHEST VALUE IS     0.02190 AT (  565475.12,  4192018.00,      118.00,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.01991 AT (  565390.25,  4192042.25,      113.00,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.01790 AT (  565460.56,  4192039.50,      117.00,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.01778 AT (  565438.25,  4192048.75,      117.00,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.01621 AT (  565339.88,  4192034.25,      108.00,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.01306 AT (  565800.00,  4192000.00,      178.00,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.01247 AT (  565400.00,  4192100.00,      116.00,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.01210 AT (  565289.25,  4192025.50,      107.00,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.01119 AT (  565300.00,  4192100.00,      107.00,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.01118 AT (  565600.00,  4192100.00,      140.00,      0.00)  DC      NA

GH       1ST HIGHEST VALUE IS     0.03653 AT (  566100.00,  4191600.00,      141.00,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.03119 AT (  565289.25,  4192025.50,      107.00,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.03001 AT (  565241.19,  4192017.75,      102.00,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.02990 AT (  565500.00,  4192100.00,      126.00,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.02864 AT (  565339.88,  4192034.25,      108.00,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.02845 AT (  566200.00,  4191600.00,      144.00,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.02727 AT (  565475.12,  4192018.00,      118.00,      0.00)  DC      NA
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            8TH HIGHEST VALUE IS      0.02690 AT (  565600.00,  4192100.00,   140.00,     0.00) DC     NA
            9TH HIGHEST VALUE IS      0.02688 AT (  565191.50,  4192009.50,    97.00,     0.00) DC     NA
           10TH HIGHEST VALUE IS      0.02663 AT (  565390.25,  4192042.25,   113.00,     0.00) DC     NA


CH    1ST HIGHEST VALUE IS      0.00339 AT (  565475.12,  4192018.00,   118.00,     0.00) DC     NA
      2ND HIGHEST VALUE IS      0.00132 AT (  565500.00,  4192100.00,   126.00,     0.00) DC     NA
      3RD HIGHEST VALUE IS      0.00128 AT (  565400.00,  4192100.00,   116.00,     0.00) DC     NA
      4TH HIGHEST VALUE IS      0.00126 AT (  565600.00,  4192100.00,   140.00,     0.00) DC     NA
      5TH HIGHEST VALUE IS      0.00083 AT (  565800.00,  4192000.00,   178.00,     0.00) DC     NA
      6TH HIGHEST VALUE IS      0.00083 AT (  565700.00,  4192100.00,   165.00,     0.00) DC     NA
      7TH HIGHEST VALUE IS      0.00081 AT (  565300.00,  4192100.00,   107.00,     0.00) DC     NA
      8TH HIGHEST VALUE IS      0.00068 AT (  565300.00,  4192200.00,   112.00,     0.00) DC     NA
      9TH HIGHEST VALUE IS      0.00067 AT (  565400.00,  4192200.00,   118.00,     0.00) DC     NA
     10TH HIGHEST VALUE IS      0.00066 AT (  565500.00,  4192200.00,   136.00,     0.00) DC     NA



               *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


          ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                              NETWORK
GROUP ID                      AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


DH    1ST HIGHEST VALUE IS      0.00392 AT (  565289.25,  4192025.50,   107.00,     0.00) DC     NA
      2ND HIGHEST VALUE IS      0.00304 AT (  565475.12,  4192018.00,   118.00,     0.00) DC     NA
      3RD HIGHEST VALUE IS      0.00261 AT (  565390.25,  4192042.25,   113.00,     0.00) DC     NA
      4TH HIGHEST VALUE IS      0.00251 AT (  565460.56,  4192039.50,   117.00,     0.00) DC     NA
      5TH HIGHEST VALUE IS      0.00237 AT (  565438.25,  4192048.75,   117.00,     0.00) DC     NA
      6TH HIGHEST VALUE IS      0.00171 AT (  565339.88,  4192034.25,   108.00,     0.00) DC     NA
      7TH HIGHEST VALUE IS      0.00154 AT (  565300.00,  4192100.00,   107.00,     0.00) DC     NA
      8TH HIGHEST VALUE IS      0.00139 AT (  565241.19,  4192017.75,   102.00,     0.00) DC     NA
      9TH HIGHEST VALUE IS      0.00138 AT (  565500.00,  4192100.00,   126.00,     0.00) DC     NA
     10TH HIGHEST VALUE IS      0.00132 AT (  565200.00,  4192100.00,    99.00,     0.00) DC     NA


HES   1ST HIGHEST VALUE IS      0.02430 AT (  565141.94,  4191999.00,    97.00,     0.00) DC     NA
      2ND HIGHEST VALUE IS      0.02416 AT (  565191.50,  4192009.50,    97.00,     0.00) DC     NA
      3RD HIGHEST VALUE IS      0.02162 AT (  565241.19,  4192017.75,   102.00,     0.00) DC     NA
      4TH HIGHEST VALUE IS      0.01621 AT (  565289.25,  4192025.50,   107.00,     0.00) DC     NA
      5TH HIGHEST VALUE IS      0.01545 AT (  565100.00,  4192000.00,    96.00,     0.00) DC     NA
      6TH HIGHEST VALUE IS      0.01318 AT (  565090.81,  4191991.50,    96.00,     0.00) DC     NA
      7TH HIGHEST VALUE IS      0.01238 AT (  565100.00,  4192100.00,   107.00,     0.00) DC     NA
      8TH HIGHEST VALUE IS      0.01221 AT (  565339.88,  4192034.25,   108.00,     0.00) DC     NA
      9TH HIGHEST VALUE IS      0.01139 AT (  565475.12,  4192018.00,   118.00,     0.00) DC     NA
     10TH HIGHEST VALUE IS      0.01043 AT (  565460.56,  4192039.50,   117.00,     0.00) DC     NA


HIL   1ST HIGHEST VALUE IS      0.01604 AT (  564795.00,  4191930.25,    78.00,     0.00) DC     NA
      2ND HIGHEST VALUE IS      0.01418 AT (  564748.50,  4191916.75,    75.00,     0.00) DC     NA
      3RD HIGHEST VALUE IS      0.01415 AT (  564842.69,  4191950.00,    83.00,     0.00) DC     NA
      4TH HIGHEST VALUE IS      0.01241 AT (  564941.88,  4191967.00,    90.00,     0.00) DC     NA
      5TH HIGHEST VALUE IS      0.01220 AT (  564892.25,  4191959.00,    84.00,     0.00) DC     NA
      6TH HIGHEST VALUE IS      0.01008 AT (  564800.00,  4192000.00,    81.00,     0.00) DC     NA
      7TH HIGHEST VALUE IS      0.00946 AT (  564900.00,  4192000.00,    88.00,     0.00) DC     NA
      8TH HIGHEST VALUE IS      0.00934 AT (  564991.81,  4191975.00,    93.00,     0.00) DC     NA
      9TH HIGHEST VALUE IS      0.00902 AT (  564700.00,  4192000.00,    76.00,     0.00) DC     NA
     10TH HIGHEST VALUE IS      0.00893 AT (  565000.00,  4192000.00,    98.00,     0.00) DC     NA



               *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


          ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                              NETWORK
GROUP ID                      AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MUL   1ST HIGHEST VALUE IS      0.00006 AT (  564664.50,  4191903.50,    71.00,     0.00) DC     NA
      2ND HIGHEST VALUE IS      0.00006 AT (  564795.00,  4191930.25,    78.00,     0.00) DC     NA
      3RD HIGHEST VALUE IS      0.00006 AT (  564648.62,  4191891.75,    68.00,     0.00) DC     NA
      4TH HIGHEST VALUE IS      0.00006 AT (  564698.50,  4191908.75,    72.00,     0.00) DC     NA
      5TH HIGHEST VALUE IS      0.00006 AT (  564842.69,  4191950.00,    83.00,     0.00) DC     NA
      6TH HIGHEST VALUE IS      0.00006 AT (  564639.88,  4191852.00,    67.00,     0.00) DC     NA
      7TH HIGHEST VALUE IS      0.00005 AT (  564748.50,  4191916.75,    75.00,     0.00) DC     NA
      8TH HIGHEST VALUE IS      0.00005 AT (  564800.00,  4192000.00,    81.00,     0.00) DC     NA
      9TH HIGHEST VALUE IS      0.00005 AT (  564645.94,  4191801.25,    66.00,     0.00) DC     NA
     10TH HIGHEST VALUE IS      0.00005 AT (  564600.00,  4191900.00,    67.00,     0.00) DC     NA
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WEL      1ST HIGHEST VALUE IS      0.00048 AT (  564795.00,  4191930.25,     78.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.00036 AT (  564892.25,  4191959.00,     84.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.00032 AT (  564941.88,  4191967.00,     90.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.00031 AT (  564748.50,  4191916.75,     75.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.00030 AT (  564842.69,  4191950.00,     83.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.00027 AT (  564900.00,  4192000.00,     88.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.00025 AT (  564991.81,  4191975.00,     93.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.00025 AT (  564800.00,  4192000.00,     81.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.00024 AT (  564700.00,  4192000.00,     76.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.00023 AT (  564800.00,  4192100.00,     92.00,     0.00)  DC      NA

NOENGINE 1ST HIGHEST VALUE IS      1.40836 AT (  566100.00,  4191400.00,    149.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      1.35523 AT (  566200.00,  4191300.00,    158.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      1.34095 AT (  566200.00,  4191400.00,    174.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      1.33065 AT (  566100.00,  4191600.00,    141.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      1.27209 AT (  566100.00,  4191300.00,    140.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      1.26730 AT (  566200.00,  4191500.00,    156.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      1.25338 AT (  566200.00,  4191600.00,    144.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      1.23800 AT (  566300.00,  4191300.00,    176.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      1.22197 AT (  565800.00,  4192000.00,    178.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      1.20642 AT (  566300.00,  4191400.00,    204.00,     0.00)  DC      NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                           **

                                                                                   NETWORK
GROUP ID                      AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


ENGINE   1ST HIGHEST VALUE IS      3.87614 AT (  564700.00,  4192000.00,     76.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      3.57008 AT (  564892.25,  4191959.00,     84.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      3.32687 AT (  565800.00,  4191200.00,    100.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      3.31013 AT (  564941.88,  4191967.00,     90.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      3.06865 AT (  564991.81,  4191975.00,     93.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      3.05700 AT (  565700.00,  4191200.00,     93.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      3.05465 AT (  565800.00,  4191000.00,     95.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      3.00940 AT (  564800.00,  4192000.00,     81.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      2.99249 AT (  565000.00,  4192000.00,     98.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      2.84619 AT (  565376.81,  4191332.25,     87.00,     0.00)  DC      NA

PRINT    1ST HIGHEST VALUE IS      0.07250 AT (  564673.81,  4191519.00,     63.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.04208 AT (  564675.81,  4191504.00,     62.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.01882 AT (  564550.38,  4191600.50,     60.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.01758 AT (  564678.75,  4191454.25,     62.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.01735 AT (  564557.88,  4191553.00,     60.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.01568 AT (  564603.69,  4191609.25,     62.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.01249 AT (  564665.12,  4191621.25,     65.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.01083 AT (  564500.00,  4191600.00,     59.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.00992 AT (  564678.50,  4191403.75,     61.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.00965 AT (  564617.12,  4191507.50,     60.00,     0.00)  DC      NA

COMBUST  1ST HIGHEST VALUE IS      1.10726 AT (  566200.00,  4191300.00,    158.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      1.08010 AT (  566100.00,  4191400.00,    149.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      1.07047 AT (  566200.00,  4191400.00,    174.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      1.02551 AT (  566300.00,  4191300.00,    176.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      1.00997 AT (  566100.00,  4191300.00,    140.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.98679 AT (  566400.00,  4191200.00,    166.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.97992 AT (  566400.00,  4191100.00,    174.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.97374 AT (  566300.00,  4191400.00,    204.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.96922 AT (  566200.00,  4191200.00,    142.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.96260 AT (  566400.00,  4191000.00,    162.00,     0.00)  DC      NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                           **

                                                                                   NETWORK
GROUP ID                      AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


HAZMAT   1ST HIGHEST VALUE IS      0.02035 AT (  564976.62,  4191271.75,     73.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.01909 AT (  565026.56,  4191279.00,     74.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.01777 AT (  564927.50,  4191263.50,     71.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.01731 AT (  564665.12,  4191621.25,     65.00,     0.00)  DC      NA
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        5TH HIGHEST VALUE IS      0.01660 AT (  565077.25,  4191285.50,    76.00,    0.00)  DC     NA
        6TH HIGHEST VALUE IS      0.01642 AT (  565176.31,  4191303.25,    79.00,    0.00)  DC     NA
        7TH HIGHEST VALUE IS      0.01605 AT (  565127.75,  4191295.25,    77.00,    0.00)  DC     NA
        8TH HIGHEST VALUE IS      0.01599 AT (  564663.00,  4191652.50,    65.00,    0.00)  DC     NA
        9TH HIGHEST VALUE IS      0.01543 AT (  565200.00,  4191300.00,    80.00,    0.00)  DC     NA
       10TH HIGHEST VALUE IS      0.01492 AT (  565376.81,  4191332.25,    87.00,    0.00)  DC     NA

PAINT   1ST HIGHEST VALUE IS      0.02007 AT (  565191.50,  4192009.50,    97.00,    0.00)  DC     NA
        2ND HIGHEST VALUE IS      0.01952 AT (  565141.94,  4191999.00,    97.00,    0.00)  DC     NA
        3RD HIGHEST VALUE IS      0.01866 AT (  565675.94,  4191381.00,    98.00,    0.00)  DC     NA
        4TH HIGHEST VALUE IS      0.01791 AT (  565626.50,  4191370.25,    95.00,    0.00)  DC     NA
        5TH HIGHEST VALUE IS      0.01775 AT (  565026.56,  4191279.00,    74.00,    0.00)  DC     NA
        6TH HIGHEST VALUE IS      0.01735 AT (  565241.19,  4192017.75,   102.00,    0.00)  DC     NA
        7TH HIGHEST VALUE IS      0.01645 AT (  565100.00,  4192000.00,    96.00,    0.00)  DC     NA
        8TH HIGHEST VALUE IS      0.01633 AT (  564976.62,  4191271.75,    73.00,    0.00)  DC     NA
        9TH HIGHEST VALUE IS      0.01589 AT (  565090.81,  4191991.50,    96.00,    0.00)  DC     NA
       10TH HIGHEST VALUE IS      0.01539 AT (  565726.62,  4191386.25,   100.00,    0.00)  DC     NA

ALL_LABS 1ST HIGHEST VALUE IS     0.49092 AT (  564842.69,  4191950.00,    83.00,    0.00)  DC     NA
        2ND HIGHEST VALUE IS      0.47433 AT (  565475.12,  4192018.00,   118.00,    0.00)  DC     NA
        3RD HIGHEST VALUE IS      0.42810 AT (  565289.25,  4192025.50,   107.00,    0.00)  DC     NA
        4TH HIGHEST VALUE IS      0.42645 AT (  564700.00,  4192000.00,    76.00,    0.00)  DC     NA
        5TH HIGHEST VALUE IS      0.42381 AT (  565460.56,  4192039.50,   117.00,    0.00)  DC     NA
        6TH HIGHEST VALUE IS      0.41724 AT (  564991.81,  4191975.00,    93.00,    0.00)  DC     NA
        7TH HIGHEST VALUE IS      0.41630 AT (  564892.25,  4191959.00,    84.00,    0.00)  DC     NA
        8TH HIGHEST VALUE IS      0.41506 AT (  565339.88,  4192034.25,   108.00,    0.00)  DC     NA
        9TH HIGHEST VALUE IS      0.41443 AT (  565438.25,  4192048.75,   117.00,    0.00)  DC     NA
       10TH HIGHEST VALUE IS      0.41418 AT (  566100.00,  4191600.00,   141.00,    0.00)  DC     NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh - Girton Hall Daycare Center          ***
*** Model Executed on 02/04/04 at 18:19:41 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Can-Girton.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Can-Girton.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc

      Number of sources -        126
Number of source groups -          7
    Number of receptors -          1
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<center>*** POINT SOURCE DATA ***</center>

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
WHSTK1_8	0	0.44700E-04	564704.4	4191782.8	66.8	31.70	293.15	7.12	0.19	YES	
NWAF9	0	0.60100E-03	564718.8	4191791.2	66.8	29.57	293.15	16.48	0.74	YES	
WHSTK10	0	0.44700E-04	564724.4	4191826.0	66.8	8.60	293.15	7.12	0.34	YES	
MHSTK1	0	0.24000E-03	564794.4	4191795.8	74.8	7.61	293.15	17.25	0.34	YES	
MHSTK2	0	0.24000E-03	564798.6	4191843.0	74.8	10.89	293.15	17.25	0.29	YES	
MHSTK3	0	0.24000E-03	564794.1	4191843.0	74.8	10.89	293.15	17.25	0.48	YES	
MHSTK4	0	0.24000E-03	564800.9	4191787.2	74.8	15.61	293.15	17.25	0.33	YES	
MHSTK6	0	0.24000E-03	564801.3	4191808.2	74.8	10.94	293.15	17.25	0.34	YES	
KHSTK1	0	0.33000E-02	564761.1	4191879.8	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK2	0	0.33000E-02	564759.4	4191891.8	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK3	0	0.33000E-02	564732.4	4191877.5	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK4	0	0.33000E-02	564731.4	4191889.0	72.7	18.45	293.15	1.28	2.76	YES	
BHSTK1	0	0.45600E-03	564678.9	4191889.0	67.4	27.85	293.15	2.78	1.26	YES	
BHSTK2	0	0.45600E-03	564675.0	4191896.8	67.4	29.68	293.15	2.78	1.26	YES	
BHSTK3	0	0.45600E-03	564704.5	4191898.0	67.4	29.68	293.15	2.78	1.26	YES	
BHSTK4	0	0.45600E-03	564707.4	4191887.8	67.4	33.34	293.15	2.78	0.37	YES	
BHSTK5	0	0.45600E-03	564691.6	4191888.0	67.4	33.34	293.15	2.78	0.37	YES	
VLSBSTK1	0	0.77100E-03	564933.6	4191633.2	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK2	0	0.77100E-03	564954.0	4191566.5	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK3	0	0.77100E-03	565051.3	4191594.8	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK4	0	0.77100E-03	565030.6	4191662.2	64.4	27.04	293.15	3.97	1.22	YES	
LSASTK1	0	0.16600E-02	564892.2	4191637.2	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK2	0	0.16600E-02	564875.9	4191632.8	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK3	0	0.16600E-02	564907.6	4191580.5	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK4	0	0.16600E-02	564897.1	4191578.0	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK5	0	0.16600E-02	564908.6	4191576.2	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK6	0	0.16600E-02	564899.1	4191573.5	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK7	0	0.16600E-02	564900.8	4191572.2	64.4	28.31	293.15	5.18	0.30	YES	
LEWHSTK1	0	0.63700E-03	565605.8	4191772.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK2	0	0.63700E-03	565591.5	4191786.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK3	0	0.63700E-03	565585.9	4191792.2	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK4	0	0.63700E-03	565583.1	4191800.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK5	0	0.63700E-03	565598.1	4191787.8	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK6	0	0.63700E-03	565619.4	4191775.8	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK7	0	0.63700E-03	565608.8	4191787.2	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK8	0	0.63700E-03	565597.6	4191800.5	106.7	12.80	293.15	3.11	0.30	YES	
LEWHSTK9	0	0.63700E-03	565593.3	4191808.2	106.7	12.80	293.15	3.11	0.36	YES	
LATHSTK1	0	0.27200E-02	565555.1	4191799.2	104.6	42.37	293.15	6.28	0.34	YES	
LATHSTK2	0	0.27200E-02	565561.1	4191812.0	104.6	36.88	293.15	6.28	0.70	YES	
LATHSTK3	0	0.27200E-02	565531.6	4191800.2	104.6	36.88	293.15	6.28	0.48	YES	

<center>*** POINT SOURCE DATA ***</center>

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
LATHSTK4	0	0.27200E-02	565515.1	4191799.5	104.6	37.19	293.15	6.28	0.96	YES	
LATHSTK5	0	0.27200E-02	565539.7	4191794.2	104.6	42.37	293.15	6.28	0.70	YES	
LATHSTK6	0	0.27200E-02	565527.3	4191776.0	104.6	38.40	293.15	6.28	0.74	YES	
LATHSTK7	0	0.27200E-02	565544.9	4191781.5	104.6	38.40	293.15	6.28	0.31	YES	
LATHSTK8	0	0.27200E-02	565562.3	4191787.0	104.6	38.40	293.15	6.28	0.70	YES	
TANHSTKA	0	0.23500E-02	565492.1	4191793.2	100.6	39.32	293.15	2.94	1.69	YES	
TANHSTKB	0	0.23500E-02	565496.8	4191794.0	100.6	39.32	293.15	2.94	1.69	YES	
TANHSTKC	0	0.23500E-02	565494.1	4191787.2	100.6	39.32	293.15	2.94	1.69	YES	

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TANHSTKD     0   0.23500E-02  565499.1 4191788.2  100.6   39.32   293.15    2.94    1.69     YES
HHSTKA       0   0.26000E-02  565540.8 4191749.5  103.6   20.12   293.15    4.15    1.52     YES
HHSTKB       0   0.26000E-02  565565.6 4191756.8  103.6   20.12   293.15    4.15    1.52     YES
HHSTKC       0   0.26000E-02  565576.8 4191717.8  103.6   20.12   293.15    4.15    1.52     YES
HHSTKD       0   0.26000E-02  565553.2 4191710.5  103.6   20.12   293.15    4.15    1.52     YES
HHSTKE       0   0.26000E-02  565543.4 4191746.5  103.6   20.12   293.15    4.15    0.81     YES
STHSTK1      0   0.10700E-03  565530.3 4191891.8  112.8   13.87   293.15    2.17    0.27     YES
STHSTK2      0   0.10700E-03  565522.0 4191918.2  112.8   13.87   293.15    2.17    0.34     YES
STHSTK3      0   0.10700E-03  565537.9 4191871.8  112.8   17.56   293.15    2.17    0.34     YES
STHSTK4      0   0.10700E-03  565529.5 4191871.8  112.8   13.87   293.15    2.17    0.34     YES
STHSTK5      0   0.10700E-03  565530.9 4191870.0  112.8   14.02   293.15    2.17    0.34     YES
STHSTK6      0   0.10700E-03  565530.1 4191869.5  112.8   14.02   293.15    2.17    0.27     YES
STHSTK7      0   0.10700E-03  565532.6 4191866.5  112.8   14.02   293.15    2.17    0.39     YES
STHSTK8      0   0.10700E-03  565538.2 4191864.0  112.8   14.02   293.15    2.17    0.27     YES
STHSTK9      0   0.10700E-03  565525.9 4191880.5  112.8   14.02   293.15    2.17    0.53     YES
STHSTK11     0   0.10700E-03  565519.0 4191907.5  112.8   13.87   293.15    2.17    0.34     YES
GHSTK1       0   0.36700E-03  565507.1 4191756.0  103.6   16.06   293.15    5.92    0.30     YES
GHSTK2       0   0.36700E-03  565510.6 4191744.8  103.6   16.06   293.15    5.92    0.25     YES
GHSTK3       0   0.36700E-03  565512.4 4191739.0  103.6   16.37   293.15    5.92    0.30     YES
GHSTK4       0   0.36700E-03  565514.7 4191737.8  103.6   15.91   293.15    5.92    0.31     YES
GHSTK5       0   0.36700E-03  565514.9 4191732.2  103.6   16.06   293.15    5.92    0.30     YES
GHSTK6       0   0.36700E-03  565500.2 4191755.2  103.6   16.12   293.15    5.92    0.30     YES
GHSTK7       0   0.36700E-03  565501.1 4191753.0  103.6   16.37   293.15    5.92    0.84     YES
GHSTK8       0   0.36700E-03  565503.7 4191744.2  103.6   16.00   293.15    5.92    0.30     YES
GHSTK9       0   0.36700E-03  565505.2 4191740.2  103.6   16.37   293.15    5.92    0.26     YES
GHSTK10      0   0.36700E-03  565506.9 4191735.2  103.6   16.06   293.15    5.92    0.30     YES
GHSTK11      0   0.36700E-03  565509.7 4191728.2  103.6   16.22   293.15    5.92    0.30     YES
GHSTK12      0   0.36700E-03  565509.0 4191725.5  103.6   16.06   293.15    5.92    0.30     YES
GHSTK13      0   0.36700E-03  565516.9 4191725.8  103.6   15.91   293.15    5.92    0.40     YES
CHSTK1       0   0.86900E-04  565393.9 4192008.8  110.3   26.85   293.15    2.00    1.00     YES
DHSTK1       0   0.95300E-04  565329.4 4191982.0  107.2   16.36   293.15    2.00    1.00     YES
HESSTK1      0   0.73300E-03  565234.6 4191926.2   98.2   15.39   293.15    2.00    1.00     YES
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*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
HILSTK1	0	0.72100E-03	564874.6	4191815.0	80.4	14.96	293.15	2.00	1.00	YES	
MULSTK1	0	0.53300E-05	564779.7	4191737.8	74.4	17.24	293.15	2.00	1.00	YES	
WELSTK1	0	0.13600E-04	564933.7	4191795.2	81.7	5.89	293.15	2.00	1.00	YES	
PRINTA	0	0.86300E-04	564584.7	4191553.2	60.0	8.91	293.15	2.70	0.84	YES	
PRINTB	0	0.86300E-04	564614.4	4191520.8	60.0	8.91	293.15	2.70	0.84	YES	
PRINTC	0	0.86300E-04	564643.1	4191525.5	60.0	8.91	293.15	2.70	0.60	YES	
COGEN	0	0.97700E+00	564876.0	4191492.0	71.9	12.77	430.37	10.45	2.28	YES	
BOILER#2	0	0.12280E-01	564863.6	4191499.5	71.9	8.80	522.82	7.97	1.52	YES	
BOILER#3	0	0.47000E-01	564881.9	4191505.8	71.9	8.80	554.11	10.53	1.52	YES	
BOILER#4	0	0.56800E-01	564885.8	4191495.8	71.9	8.80	566.65	12.63	1.52	YES	
POURING	0	0.12800E-02	564847.8	4191467.0	70.1	14.94	293.15	4.62	0.56	YES	
ENG_62	0	0.47241E-02	565567.6	4191086.5	85.1	4.57	800.37	146.01	0.13	NO	
ENG_63	0	0.23600E-02	564668.2	4191897.5	70.2	4.57	799.85	152.00	0.13	YES	
ENG_64	0	0.72300E-03	565452.9	4191687.0	98.2	3.05	817.07	58.47	0.08	YES	
ENG_105	0	0.74200E-01	564939.1	4191457.8	71.1	4.57	810.96	70.10	0.23	YES	
ENG_106	0	0.62205E-01	564991.6	4191614.5	73.6	30.48	810.96	70.10	0.20	YES	
ENG_107	0	0.49776E-01	564767.4	4191906.8	76.2	0.00	810.96	70.10	0.18	YES	
ENG_108	0	0.49776E-01	564930.6	4191564.2	68.8	7.62	810.96	70.10	0.18	YES	
ENG_109	0	0.16596E-01	565615.8	4191801.2	111.7	3.05	810.96	70.10	0.15	YES	
ENG_110	0	0.82858E-02	564655.9	4191874.5	68.4	4.57	810.96	70.10	0.10	YES	
ENG_111	0	0.23810E-01	565091.1	4191757.8	78.9	3.05	810.96	70.10	0.11	YES	
ENG_112	0	0.20714E-01	565542.8	4191208.2	85.7	3.05	810.93	70.10	0.10	NO	
ENG_113	0	0.20714E-01	565673.6	4191194.8	92.0	3.05	810.93	70.10	0.10	NO	
ENG_114	0	0.20714E-01	565601.4	4191014.2	86.0	3.05	810.93	70.10	0.10	NO	
ENG_115	0	0.20714E-01	565702.9	4190991.8	91.4	3.05	810.93	70.10	0.10	NO	
ENG_116	0	0.20714E-01	564775.8	4191177.5	63.2	4.57	810.93	70.10	0.10	NO	
ENG_117	0	0.20714E-01	565575.9	4191609.0	99.3	3.05	810.96	70.10	0.10	YES	
ENG_118	0	0.98935E-02	564654.8	4191890.1	68.6	4.57	810.96	70.10	0.13	YES	
ENG_119	0	0.14531E-01	564728.8	4191771.0	70.5	4.57	810.96	70.10	0.08	YES	
ENG_120	0	0.10450E-01	565318.0	4191422.5	86.1	3.05	810.96	70.10	0.08	YES	
ENG_121	0	0.10388E-01	565926.2	4191443.0	118.9	3.05	810.93	70.10	0.08	NO	
ENG_123	0	0.12800E-01	565259.4	4191652.8	88.3	3.05	810.96	70.10	0.08	YES	
ENG_125	0	0.41058E-02	564811.2	4191460.8	67.7	3.05	810.96	70.10	0.08	YES	
ENG_126	0	0.33143E-02	565137.9	4191441.5	77.6	0.00	810.96	70.10	0.08	YES	
ENG_128	0	0.41429E-02	565469.2	4191955.2	109.8	3.05	810.96	70.10	0.05	YES	
ENG_129	0	0.41429E-02	565383.1	4191740.2	97.0	2.44	810.96	70.10	0.05	YES	
ENG_130	0	0.25692E-02	565533.3	4191713.5	98.9	2.44	815.40	134.54	0.08	YES	
ENG_131	0	0.72350E-03	564970.3	4191484.2	71.3	1.83	817.07	58.47	0.08	YES	
ENG_132	0	0.72350E-03	564800.3	4191781.8	74.3	1.83	817.07	58.47	0.08	YES	

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      E134_133      0   0.18674E-01  565380.0 4191939.2   104.3    3.05   769.29   135.05     0.13      YES


                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE   RELEASE   INIT.   INIT.  EMISSION RATE
        SOURCE  PART.  (GRAMS/SEC)    X        Y        ELEV.  HEIGHT    SY      SZ     SCALAR VARY
          ID    CATS.             (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)     BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


        MHSTK5     0   0.24000E-03  564821.2 4191842.8   74.8    6.95    0.07    2.42
        STHSTK10   0   0.10700E-03  565522.6 4191880.8  112.8   14.02    0.29    5.39
        PAINT1     0   0.26600E-03  564917.1 4191432.5   72.0    4.57    3.54    4.25
        PAINT2     0   0.26600E-03  565322.7 4191834.8   96.0    4.57    3.54    4.25
        PAINT3     0   0.26600E-03  565541.5 4191525.8   97.0    4.57    3.54    4.25
        PAINT4     0   0.26600E-03  564865.7 4191751.0   77.0    4.57    3.54    4.25


                            *** SOURCE IDs DEFINING SOURCE GROUPS ***

     GROUP ID                                       SOURCE IDs


   ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,

            STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,

            GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

            WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,

            PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,

            ENG_113 , ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 ,
ENG_126 ,

            ENG_128 , ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

   GEN      ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
ENG_113 ,

            ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,

            ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

   LABS     WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
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STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1 , GHSTK2 , GHSTK3 , GHSTK4 , GHSTK5 , GHSTK6
,

                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

   GROUP ID   SOURCE IDs

                GHSTK7 , GHSTK8 , GHSTK9 , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1 , DHSTK1 , HESSTK1 , HILSTK1 ,
   MULSTK1 ,

                WELSTK1 ,

     COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

     OTHER   PRINTA , PRINTB , PRINTC , POURING , PAINT1 , PAINT2 , PAINT3 , PAINT4 ,

     BOILERS   BOILER#2, BOILER#3, BOILER#4,

     COGEN   COGEN   ,

                          *** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

                       ** CONC OF CANCER   IN MICROGRAMS/M**3   **

                                                                                       NETWORK
   GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
   -

   ALL   1ST HIGHEST VALUE IS   4.23623 AT (565700.06, 4191711.25,   109.42,   0.00) DC   NA
           2ND HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           3RD HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           4TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           5TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           6TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           7TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           8TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           9TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
          10TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)

   GEN   1ST HIGHEST VALUE IS   2.79101 AT (565700.06, 4191711.25,   109.42,   0.00) DC   NA
           2ND HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           3RD HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           4TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           5TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           6TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           7TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           8TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           9TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
          10TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)

   LABS   1ST HIGHEST VALUE IS   1.02400 AT (565700.06, 4191711.25,   109.42,   0.00) DC   NA
           2ND HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           3RD HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           4TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           5TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           6TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           7TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           8TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
           9TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
          10TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)

                          *** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

                       ** CONC OF CANCER   IN MICROGRAMS/M**3   **

                                                                                       NETWORK
   GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
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COMBUST  1ST HIGHEST VALUE IS      0.40619 AT (  565700.06,  4191711.25,    109.42,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
        10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)

OTHER    1ST HIGHEST VALUE IS      0.01559 AT (  565700.06,  4191711.25,    109.42,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
        10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)

BOILERS  1ST HIGHEST VALUE IS      0.07586 AT (  565700.06,  4191711.25,    109.42,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
        10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)


                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                 ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                   NETWORK
GROUP ID                          AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


COGEN    1ST HIGHEST VALUE IS      0.33033 AT (  565700.06,  4191711.25,    109.42,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
         9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
        10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,     0.00)
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh                                    ***
*** Model Executed on 02/05/04 at 13:28:54 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Can-MEI.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Can-MEI.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc
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      Number of sources -      126
Number of source groups -        6
    Number of receptors -        1
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*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
WHSTK1_8	0	0.44700E-04	564704.4	4191782.8	66.8	31.70	293.15	7.12	0.19	YES	
NWAF9	0	0.60100E-03	564718.8	4191791.2	66.8	29.57	293.15	16.48	0.74	YES	
WHSTK10	0	0.44700E-04	564724.4	4191826.0	66.8	8.60	293.15	7.12	0.34	YES	
MHSTK1	0	0.24000E-03	564794.4	4191795.8	74.8	7.61	293.15	17.25	0.34	YES	
MHSTK2	0	0.24000E-03	564798.6	4191843.0	74.8	10.89	293.15	17.25	0.29	YES	
MHSTK3	0	0.24000E-03	564794.1	4191843.0	74.8	10.89	293.15	17.25	0.48	YES	
MHSTK4	0	0.24000E-03	564800.9	4191787.2	74.8	15.61	293.15	17.25	0.33	YES	
MHSTK6	0	0.24000E-03	564801.3	4191808.2	74.8	10.94	293.15	17.25	0.34	YES	
KHSTK1	0	0.33000E-02	564761.1	4191879.8	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK2	0	0.33000E-02	564759.4	4191891.8	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK3	0	0.33000E-02	564732.4	4191877.5	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK4	0	0.33000E-02	564731.4	4191889.0	72.7	18.45	293.15	1.28	2.76	YES	
BHSTK1	0	0.45600E-03	564678.9	4191889.0	67.4	27.85	293.15	2.78	1.26	YES	
BHSTK2	0	0.45600E-03	564675.0	4191896.8	67.4	29.68	293.15	2.78	1.26	YES	
BHSTK3	0	0.45600E-03	564704.5	4191898.0	67.4	29.68	293.15	2.78	1.26	YES	
BHSTK4	0	0.45600E-03	564707.4	4191887.8	67.4	33.34	293.15	2.78	0.37	YES	
BHSTK5	0	0.45600E-03	564691.6	4191888.0	67.4	33.34	293.15	2.78	0.37	YES	
VLSBSTK1	0	0.77100E-03	564933.6	4191633.2	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK2	0	0.77100E-03	564954.0	4191566.5	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK3	0	0.77100E-03	565051.3	4191594.8	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK4	0	0.77100E-03	565030.6	4191662.2	64.4	27.04	293.15	3.97	1.22	YES	
LSASTK1	0	0.16600E-02	564892.2	4191637.2	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK2	0	0.16600E-02	564875.9	4191632.8	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK3	0	0.16600E-02	564907.6	4191580.5	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK4	0	0.16600E-02	564897.1	4191578.0	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK5	0	0.16600E-02	564908.6	4191576.2	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK6	0	0.16600E-02	564899.1	4191573.5	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK7	0	0.16600E-02	564900.8	4191572.2	64.4	28.31	293.15	5.18	0.30	YES	
LEWHSTK1	0	0.63700E-03	565605.8	4191772.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK2	0	0.63700E-03	565591.5	4191786.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK3	0	0.63700E-03	565585.9	4191792.2	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK4	0	0.63700E-03	565583.1	4191800.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK5	0	0.63700E-03	565598.1	4191787.8	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK6	0	0.63700E-03	565619.4	4191775.8	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK7	0	0.63700E-03	565608.8	4191787.2	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK8	0	0.63700E-03	565597.6	4191800.5	106.7	12.80	293.15	3.11	0.30	YES	
LEWHSTK9	0	0.63700E-03	565593.3	4191808.2	106.7	12.80	293.15	3.11	0.36	YES	
LATHSTK1	0	0.27200E-02	565555.1	4191799.2	104.6	42.37	293.15	6.28	0.34	YES	
LATHSTK2	0	0.27200E-02	565561.1	4191812.0	104.6	36.88	293.15	6.28	0.70	YES	
LATHSTK3	0	0.27200E-02	565531.6	4191800.2	104.6	36.88	293.15	6.28	0.48	YES	

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
LATHSTK4	0	0.27200E-02	565515.1	4191799.5	104.6	37.19	293.15	6.28	0.96	YES	
LATHSTK5	0	0.27200E-02	565539.7	4191794.2	104.6	42.37	293.15	6.28	0.70	YES	
LATHSTK6	0	0.27200E-02	565527.3	4191776.0	104.6	38.40	293.15	6.28	0.74	YES	
LATHSTK7	0	0.27200E-02	565544.9	4191781.5	104.6	38.40	293.15	6.28	0.31	YES	
LATHSTK8	0	0.27200E-02	565562.3	4191787.0	104.6	38.40	293.15	6.28	0.70	YES	
TANHSTKA	0	0.23500E-02	565492.1	4191793.8	100.6	39.32	293.15	2.94	1.69	YES	
TANHSTKB	0	0.23500E-02	565496.8	4191794.0	100.6	39.32	293.15	2.94	1.69	YES	
TANHSTKC	0	0.23500E-02	565494.1	4191787.2	100.6	39.32	293.15	2.94	1.69	YES	

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TANHSTKD      0   0.23500E-02  565499.1 4191788.2   100.6    39.32   293.15     2.94      1.69      YES
HHSTKA        0   0.26000E-02  565540.8 4191749.5   103.6    20.12   293.15     4.15      1.52      YES
HHSTKB        0   0.26000E-02  565565.6 4191756.8   103.6    20.12   293.15     4.15      1.52      YES
HHSTKC        0   0.26000E-02  565576.8 4191717.8   103.6    20.12   293.15     4.15      1.52      YES
HHSTKD        0   0.26000E-02  565553.2 4191710.5   103.6    20.12   293.15     4.15      1.52      YES
HHSTKE        0   0.26000E-02  565543.4 4191746.5   103.6    20.12   293.15     4.15      0.81      YES
STHSTK1       0   0.10700E-03  565530.3 4191891.8   112.8    13.87   293.15     2.17      0.27      YES
STHSTK2       0   0.10700E-03  565522.0 4191918.2   112.8    13.87   293.15     2.17      0.34      YES
STHSTK3       0   0.10700E-03  565537.9 4191871.0   112.8    17.56   293.15     2.17      0.34      YES
STHSTK4       0   0.10700E-03  565529.5 4191871.8   112.8    13.87   293.15     2.17      0.34      YES
STHSTK5       0   0.10700E-03  565530.9 4191870.0   112.8    14.02   293.15     2.17      0.34      YES
STHSTK6       0   0.10700E-03  565530.1 4191869.5   112.8    14.02   293.15     2.17      0.27      YES
STHSTK7       0   0.10700E-03  565532.6 4191866.5   112.8    14.02   293.15     2.17      0.39      YES
STHSTK8       0   0.10700E-03  565538.2 4191864.0   112.8    14.02   293.15     2.17      0.27      YES
STHSTK9       0   0.10700E-03  565525.9 4191880.5   112.8    14.02   293.15     2.17      0.53      YES
STHSTK11      0   0.10700E-03  565519.0 4191907.5   112.8    13.87   293.15     2.17      0.34      YES
GHSTK1        0   0.36700E-03  565507.1 4191756.0   103.6    16.06   293.15     5.92      0.30      YES
GHSTK2        0   0.36700E-03  565510.6 4191744.8   103.6    16.06   293.15     5.92      0.25      YES
GHSTK3        0   0.36700E-03  565512.4 4191739.0   103.6    16.37   293.15     5.92      0.30      YES
GHSTK4        0   0.36700E-03  565514.7 4191737.8   103.6    15.91   293.15     5.92      0.31      YES
GHSTK5        0   0.36700E-03  565514.9 4191732.2   103.6    16.06   293.15     5.92      0.30      YES
GHSTK6        0   0.36700E-03  565500.2 4191755.2   103.6    16.12   293.15     5.92      0.30      YES
GHSTK7        0   0.36700E-03  565501.1 4191753.0   103.6    16.37   293.15     5.92      0.84      YES
GHSTK8        0   0.36700E-03  565503.7 4191744.2   103.6    16.00   293.15     5.92      0.30      YES
GHSTK9        0   0.36700E-03  565505.2 4191740.2   103.6    16.37   293.15     5.92      0.26      YES
GHSTK10       0   0.36700E-03  565506.9 4191735.2   103.6    16.06   293.15     5.92      0.30      YES
GHSTK11       0   0.36700E-03  565509.7 4191728.2   103.6    16.22   293.15     5.92      0.30      YES
GHSTK12       0   0.36700E-03  565509.0 4191725.5   103.6    16.06   293.15     5.92      0.30      YES
GHSTK13       0   0.36700E-03  565516.9 4191725.8   103.6    15.91   293.15     5.92      0.40      YES
CHSTK1        0   0.86900E-04  565393.9 4192008.8   110.3    26.85   293.15     2.00      1.00      YES
DHSTK1        0   0.95300E-04  565329.4 4191982.0   107.2    16.36   293.15     2.00      1.00      YES
HESSTK1       0   0.73300E-03  565234.6 4191926.2    98.2    15.39   293.15     2.00      1.00      YES
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*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
HILSTK1	0	0.72100E-03	564874.6	4191815.0	80.4	14.96	293.15	2.00	1.00	YES	
MULSTK1	0	0.53300E-05	564779.7	4191737.8	74.4	17.24	293.15	2.00	1.00	YES	
WELSTK1	0	0.13600E-04	564933.7	4191795.2	81.7	5.89	293.15	2.00	1.00	YES	
PRINTA	0	0.86300E-04	564584.7	4191553.2	60.0	8.91	293.15	2.70	0.84	YES	
PRINTB	0	0.86300E-04	564614.4	4191520.8	60.0	8.91	293.15	2.70	0.84	YES	
PRINTC	0	0.86300E-04	564643.1	4191525.5	60.0	8.91	293.15	2.70	0.60	YES	
COGEN	0	0.97700E+00	564876.0	4191492.0	71.9	12.77	430.37	10.45	2.28	YES	
BOILER#2	0	0.12280E-01	564863.6	4191499.5	71.9	8.80	522.82	7.97	1.52	YES	
BOILER#3	0	0.47000E-01	564881.9	4191505.8	71.9	8.80	554.11	10.53	1.52	YES	
BOILER#4	0	0.56800E-01	564885.8	4191495.8	71.9	8.80	566.65	12.63	1.52	YES	
POURING	0	0.12800E-02	564847.8	4191467.0	70.1	14.94	293.15	4.62	0.56	YES	
ENG_62	0	0.47241E-02	565567.6	4191086.5	85.1	4.57	800.37	146.01	0.13	NO	
ENG_63	0	0.23600E-02	564668.2	4191897.5	70.2	4.57	799.85	152.00	0.13	YES	
ENG_64	0	0.72300E-03	565452.9	4191687.0	98.2	3.05	817.07	58.47	0.08	YES	
ENG_105	0	0.74200E-01	564939.1	4191457.8	71.1	4.57	810.96	70.10	0.23	YES	
ENG_106	0	0.62205E-01	564991.6	4191614.5	73.6	30.48	810.96	70.10	0.20	YES	
ENG_107	0	0.49776E-01	564767.4	4191906.8	76.2	0.00	810.96	70.10	0.18	YES	
ENG_108	0	0.49776E-01	564930.6	4191564.2	68.8	7.62	810.96	70.10	0.18	YES	
ENG_109	0	0.16596E-01	565615.8	4191801.2	111.7	3.05	810.96	70.10	0.15	YES	
ENG_110	0	0.82858E-02	564655.9	4191874.5	68.4	4.57	810.96	70.10	0.10	YES	
ENG_111	0	0.23810E-01	565091.1	4191757.8	78.9	3.05	810.96	70.10	0.11	YES	
ENG_112	0	0.20714E-01	565542.8	4191208.2	85.7	3.05	810.93	70.10	0.10	NO	
ENG_113	0	0.20714E-01	565673.6	4191194.8	92.0	3.05	810.93	70.10	0.10	NO	
ENG_114	0	0.20714E-01	565601.4	4191014.2	86.0	3.05	810.93	70.10	0.10	NO	
ENG_115	0	0.20714E-01	565702.9	4190991.8	91.4	3.05	810.93	70.10	0.10	NO	
ENG_116	0	0.20714E-01	564775.8	4191177.5	63.2	4.57	810.93	70.10	0.10	NO	
ENG_117	0	0.20714E-01	565575.9	4191609.0	99.3	3.05	810.96	70.10	0.10	YES	
ENG_118	0	0.98935E-02	564654.8	4191890.1	68.6	4.57	810.96	70.10	0.13	YES	
ENG_119	0	0.14531E-01	564728.8	4191771.0	70.5	4.57	810.96	70.10	0.08	YES	
ENG_120	0	0.10450E-01	565318.0	4191422.5	86.1	3.05	810.96	70.10	0.08	YES	
ENG_121	0	0.10388E-01	565926.2	4191443.0	118.9	3.05	810.93	70.10	0.08	NO	
ENG_123	0	0.12800E-02	565259.4	4191652.8	88.3	3.05	810.96	70.10	0.08	YES	
ENG_125	0	0.41058E-02	564811.2	4191460.8	67.7	3.05	810.96	70.10	0.08	YES	
ENG_126	0	0.33143E-02	565137.9	4191441.5	77.6	0.00	810.96	70.10	0.08	YES	
ENG_128	0	0.41429E-02	565469.2	4191955.2	109.8	3.05	810.96	70.10	0.05	YES	
ENG_129	0	0.41429E-02	565383.1	4191740.2	97.0	2.44	810.96	70.10	0.05	YES	
ENG_130	0	0.25692E-02	565533.3	4191713.5	98.9	2.44	815.40	134.54	0.08	YES	
ENG_131	0	0.72350E-03	564970.3	4191484.2	71.3	1.83	817.07	58.47	0.08	YES	
ENG_132	0	0.72350E-03	564800.3	4191781.8	74.3	1.83	817.07	58.47	0.08	YES	

```
    E134_133      0   0.18674E-01  565380.0 4191939.2   104.3    3.05   769.29   135.05     0.13      YES


                             *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                   BASE    RELEASE  INIT.    INIT.   EMISSION RATE
    SOURCE     PART.  (GRAMS/SEC)    X        Y       ELEV.   HEIGHT    SY       SZ     SCALAR VARY
      ID       CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)     BY
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


    MHSTK5        0   0.24000E-03  564821.2 4191842.8   74.8    6.95    0.07     2.42
    STHSTK10      0   0.10700E-03  565522.6 4191880.8  112.8   14.02    0.29     5.39
    PAINT1        0   0.26600E-03  564917.1 4191432.5   72.0    4.57    3.54     4.25
    PAINT2        0   0.26600E-03  565322.7 4191834.8   96.0    4.57    3.54     4.25
    PAINT3        0   0.26600E-03  565541.5 4191525.8   97.0    4.57    3.54     4.25
    PAINT4        0   0.26600E-03  564865.7 4191751.0   77.0    4.57    3.54     4.25


                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

   GROUP ID                                        SOURCE IDs


   ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
  ,

            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
  LSASTK2 ,

            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
  LEWHSTK7,

            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
  TANHSTKB,

            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
  STHSTK5 ,

            STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
  ,

            GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
  MULSTK1 ,

            WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
  ,

            PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
  ENG_112 ,

            ENG_113 , ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 ,
  ENG_126 ,

            ENG_128 , ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,


   GEN      ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
  ENG_113 ,

            ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
  ENG_128 ,

            ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,


   LABS     WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
  ,

            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
  LSASTK2 ,

            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
  LEWHSTK7,

            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
  TANHSTKB,

            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
  STHSTK5 ,
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              STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,


                                     *** SOURCE IDs DEFINING SOURCE GROUPS ***

     GROUP ID                                        SOURCE IDs


              GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
     MULSTK1 ,

              WELSTK1 ,


      COGEN    COGEN   ,


      BOILERS   BOILER#2, BOILER#3, BOILER#4,


      OTHER     PRINTA  , PRINTB  , PRINTC  , POURING , PAINT1  , PAINT2  , PAINT3  , PAINT4  ,



                                 *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                            ** CONC OF CANCER   IN MICROGRAMS/M**3                       **

                                                                                             NETWORK
     GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
     - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


     ALL    1ST HIGHEST VALUE IS        4.34956 AT (  564700.00, 4192000.00,      76.00,      0.00) DC      NA
            2ND HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            3RD HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            4TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            5TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            6TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            7TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            8TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            9TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
           10TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)


     GEN    1ST HIGHEST VALUE IS        3.87614 AT (  564700.00, 4192000.00,      76.00,      0.00) DC      NA
            2ND HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            3RD HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            4TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            5TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            6TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            7TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            8TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            9TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
           10TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)


     LABS   1ST HIGHEST VALUE IS        0.42645 AT (  564700.00, 4192000.00,      76.00,      0.00) DC      NA
            2ND HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            3RD HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            4TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            5TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            6TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            7TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            8TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
            9TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)
           10TH HIGHEST VALUE IS        0.00000 AT (       0.00,       0.00,       0.00,      0.00)



                                 *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                            ** CONC OF CANCER   IN MICROGRAMS/M**3                       **

                                                                                             NETWORK
     GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
     - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


     COGEN   1ST HIGHEST VALUE IS       0.02474 AT (  564700.00, 4192000.00,      76.00,      0.00) DC      NA
             2ND HIGHEST VALUE IS       0.00000 AT (       0.00,       0.00,       0.00,      0.00)
             3RD HIGHEST VALUE IS       0.00000 AT (       0.00,       0.00,       0.00,      0.00)
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              4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
              5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
              6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
              7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
              8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
              9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
             10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)

BOILERS  1ST HIGHEST VALUE IS      0.00557 AT ( 564700.00, 4192000.00,      76.00,       0.00) DC      NA
          2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
         10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)

OTHER    1ST HIGHEST VALUE IS      0.01729 AT ( 564700.00, 4192000.00,      76.00,       0.00) DC      NA
          2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
          9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
         10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,       0.00)
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; Sensitive Receptors - vjh          ***
*** Model Executed on 02/04/04 at 18:19:57 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Can-Sensitive.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Can-Sensitive.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc

       Number of sources -       126
Number of source groups -        27
    Number of receptors -       259


                              *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
    SOURCE   PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
      ID     CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)   (METERS)                 BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8    0   0.44700E-04  564704.4 4191782.8   66.8   31.70   293.15     7.12      0.19      YES
  NWAF9       0   0.60100E-03  564718.8 4191791.2   66.8   29.57   293.15    16.48      0.74      YES
  WHSTK10     0   0.44700E-04  564724.4 4191826.0   66.8    8.60   293.15     7.12      0.34      YES
  MHSTK1      0   0.24000E-03  564794.4 4191795.8   74.8    7.61   293.15    17.25      0.34      YES
  MHSTK2      0   0.24000E-03  564798.6 4191843.0   74.8   10.89   293.15    17.25      0.29      YES
  MHSTK3      0   0.24000E-03  564794.1 4191843.0   74.8   10.89   293.15    17.25      0.48      YES
  MHSTK4      0   0.24000E-03  564800.9 4191787.2   74.8   15.61   293.15    17.25      0.33      YES
  MHSTK6      0   0.24000E-03  564801.3 4191808.2   74.8   10.94   293.15    17.25      0.34      YES
  KHSTK1      0   0.33000E-02  564761.1 4191879.8   72.7   18.45   293.15     1.28      2.76      YES
  KHSTK2      0   0.33000E-02  564759.4 4191891.8   72.7   18.45   293.15     1.28      2.76      YES
  KHSTK3      0   0.33000E-02  564732.4 4191877.5   72.7   18.45   293.15     1.28      2.76      YES
  KHSTK4      0   0.33000E-02  564731.4 4191889.0   72.7   18.45   293.15     1.28      2.76      YES
  BHSTK1      0   0.45600E-03  564678.9 4191889.0   67.4   27.85   293.15     2.78      1.26      YES
  BHSTK2      0   0.45600E-03  564675.0 4191896.8   67.4   29.68   293.15     2.78      1.26      YES
  BHSTK3      0   0.45600E-03  564704.5 4191898.0   67.4   29.68   293.15     2.78      1.26      YES
  BHSTK4      0   0.45600E-03  564707.4 4191887.8   67.4   33.34   293.15     2.78      0.37      YES
  BHSTK5      0   0.45600E-03  564691.6 4191888.0   67.4   33.34   293.15     2.78      0.37      YES
  VLSBSTK1    0   0.77100E-03  564933.6 4191633.2   64.4   27.04   293.15     3.97      1.22      YES
  VLSBSTK2    0   0.77100E-03  564954.0 4191566.5   64.4   27.04   293.15     3.97      1.22      YES
  VLSBSTK3    0   0.77100E-03  565051.3 4191594.8   64.4   27.04   293.15     3.97      1.22      YES
  VLSBSTK4    0   0.77100E-03  565030.6 4191662.2   64.4   27.04   293.15     3.97      1.22      YES
  LSASTK1     0   0.16600E-02  564892.2 4191637.2   64.4   28.31   293.15     5.18      1.22      YES
  LSASTK2     0   0.16600E-02  564875.9 4191632.8   64.4   28.31   293.15     5.18      1.22      YES
  LSASTK3     0   0.16600E-02  564907.6 4191580.5   64.4   28.31   293.15     5.18      1.22      YES
  LSASTK4     0   0.16600E-02  564897.1 4191578.0   64.4   28.31   293.15     5.18      1.22      YES
  LSASTK5     0   0.16600E-02  564908.6 4191576.2   64.4   28.31   293.15     5.18      1.22      YES
  LSASTK6     0   0.16600E-02  564899.1 4191573.5   64.4   28.31   293.15     5.18      1.22      YES
  LSASTK7     0   0.16600E-02  564900.8 4191572.2   64.4   28.31   293.15     5.18      0.30      YES
  LEWHSTK1    0   0.63700E-03  565605.8 4191772.0  106.7   12.80   293.15     3.11      0.36      YES
  LEWHSTK2    0   0.63700E-03  565591.5 4191786.0  106.7   12.80   293.15     3.11      0.36      YES
  LEWHSTK3    0   0.63700E-03  565585.9 4191792.2  106.7   12.80   293.15     3.11      0.36      YES
  LEWHSTK4    0   0.63700E-03  565583.1 4191800.0  106.7   12.80   293.15     3.11      0.36      YES
  LEWHSTK5    0   0.63700E-03  565598.1 4191787.8  106.7   12.80   293.15     3.11      0.36      YES
  LEWHSTK6    0   0.63700E-03  565619.4 4191775.8  106.7   12.80   293.15     3.11      0.36      YES
  LEWHSTK7    0   0.63700E-03  565608.8 4191787.2  106.7   12.80   293.15     3.11      0.36      YES
  LEWHSTK8    0   0.63700E-03  565597.6 4191800.5  106.7   12.80   293.15     3.11      0.30      YES
  LEWHSTK9    0   0.63700E-03  565593.3 4191808.2  106.7   12.80   293.15     3.11      0.36      YES
  LATHSTK1    0   0.27200E-02  565555.1 4191799.2  104.6   42.37   293.15     6.28      0.34      YES
  LATHSTK2    0   0.27200E-02  565561.1 4191812.0  104.6   36.88   293.15     6.28      0.70      YES
  LATHSTK3    0   0.27200E-02  565531.6 4191800.2  104.6   36.88   293.15     6.28      0.48      YES


                              *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
    SOURCE   PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
      ID     CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)   (METERS)                 BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  LATHSTK4    0   0.27200E-02  565515.1 4191799.5  104.6   37.19   293.15     6.28      0.96      YES
  LATHSTK5    0   0.27200E-02  565539.7 4191794.2  104.6   42.37   293.15     6.28      0.70      YES
  LATHSTK6    0   0.27200E-02  565527.3 4191776.0  104.6   38.40   293.15     6.28      0.74      YES
  LATHSTK7    0   0.27200E-02  565544.9 4191781.5  104.6   38.40   293.15     6.28      0.31      YES
  LATHSTK8    0   0.27200E-02  565562.3 4191787.0  104.6   38.40   293.15     6.28      0.70      YES
  TANHSTKA    0   0.23500E-02  565492.1 4191793.2  100.6   39.32   293.15     2.94      1.69      YES
  TANHSTKB    0   0.23500E-02  565496.8 4191794.0  100.6   39.32   293.15     2.94      1.69      YES
  TANHSTKC    0   0.23500E-02  565494.1 4191787.2  100.6   39.32   293.15     2.94      1.69      YES
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TANHSTKD     0   0.23500E-02  565499.1 4191788.2  100.6   39.32   293.15    2.94   1.69      YES
HHSTKA       0   0.26000E-02  565540.8 4191749.5  103.6   20.12   293.15    4.15   1.52      YES
HHSTKB       0   0.26000E-02  565565.6 4191756.8  103.6   20.12   293.15    4.15   1.52      YES
HHSTKC       0   0.26000E-02  565576.8 4191717.8  103.6   20.12   293.15    4.15   1.52      YES
HHSTKD       0   0.26000E-02  565553.2 4191710.5  103.6   20.12   293.15    4.15   1.52      YES
HHSTKE       0   0.26000E-02  565543.4 4191746.5  103.6   20.12   293.15    4.15   0.81      YES
STHSTK1      0   0.10700E-03  565530.3 4191891.8  112.8   13.87   293.15    2.17   0.27      YES
STHSTK2      0   0.10700E-03  565522.0 4191918.2  112.8   13.87   293.15    2.17   0.34      YES
STHSTK3      0   0.10700E-03  565537.9 4191871.0  112.8   17.56   293.15    2.17   0.34      YES
STHSTK4      0   0.10700E-03  565529.5 4191871.8  112.8   13.87   293.15    2.17   0.34      YES
STHSTK5      0   0.10700E-03  565530.9 4191870.0  112.8   14.02   293.15    2.17   0.34      YES
STHSTK6      0   0.10700E-03  565530.1 4191869.5  112.8   14.02   293.15    2.17   0.27      YES
STHSTK7      0   0.10700E-03  565532.6 4191866.5  112.8   14.02   293.15    2.17   0.39      YES
STHSTK8      0   0.10700E-03  565538.2 4191864.0  112.8   14.02   293.15    2.17   0.27      YES
STHSTK9      0   0.10700E-03  565525.9 4191880.5  112.8   14.02   293.15    2.17   0.53      YES
STHSTK11     0   0.10700E-03  565519.0 4191907.5  112.8   13.87   293.15    2.17   0.34      YES
GHSTK1       0   0.36700E-03  565507.1 4191756.0  103.6   16.06   293.15    5.92   0.30      YES
GHSTK2       0   0.36700E-03  565510.6 4191744.8  103.6   16.06   293.15    5.92   0.25      YES
GHSTK3       0   0.36700E-03  565512.4 4191739.0  103.6   16.37   293.15    5.92   0.30      YES
GHSTK4       0   0.36700E-03  565514.7 4191737.8  103.6   15.91   293.15    5.92   0.31      YES
GHSTK5       0   0.36700E-03  565514.9 4191732.2  103.6   16.06   293.15    5.92   0.30      YES
GHSTK6       0   0.36700E-03  565500.2 4191755.2  103.6   16.12   293.15    5.92   0.30      YES
GHSTK7       0   0.36700E-03  565501.1 4191753.0  103.6   16.37   293.15    5.92   0.84      YES
GHSTK8       0   0.36700E-03  565503.7 4191744.2  103.6   16.00   293.15    5.92   0.30      YES
GHSTK9       0   0.36700E-03  565505.2 4191740.2  103.6   16.37   293.15    5.92   0.26      YES
GHSTK10      0   0.36700E-03  565506.9 4191735.2  103.6   16.06   293.15    5.92   0.30      YES
GHSTK11      0   0.36700E-03  565509.7 4191728.2  103.6   16.22   293.15    5.92   0.30      YES
GHSTK12      0   0.36700E-03  565509.0 4191725.5  103.6   16.06   293.15    5.92   0.30      YES
GHSTK13      0   0.36700E-03  565516.9 4191725.8  103.6   15.91   293.15    5.92   0.40      YES
CHSTK1       0   0.86900E-04  565393.9 4192008.8  110.3   26.85   293.15    2.00   1.00      YES
DHSTK1       0   0.95300E-04  565329.4 4191982.0  107.2   16.36   293.15    2.00   1.00      YES
HESSTK1      0   0.73300E-03  565234.6 4191926.2   98.2   15.39   293.15    2.00   1.00      YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
HILSTK1	0	0.72100E-03	564874.6	4191815.0	80.4	14.96	293.15	2.00	1.00	YES	
MULSTK1	0	0.53300E-05	564779.7	4191737.8	74.4	17.24	293.15	2.00	1.00	YES	
WELSTK1	0	0.13600E-04	564933.7	4191795.2	81.7	5.89	293.15	2.00	1.00	YES	
PRINTA	0	0.86300E-04	564584.7	4191553.2	60.0	8.91	293.15	2.70	0.84	YES	
PRINTB	0	0.86300E-04	564614.4	4191520.8	60.0	8.91	293.15	2.70	0.84	YES	
PRINTC	0	0.86300E-04	564643.1	4191525.5	60.0	8.91	293.15	2.70	0.60	YES	
COGEN	0	0.97700E+00	564876.0	4191492.0	71.9	12.77	430.37	10.45	2.28	YES	
BOILER#2	0	0.12280E-01	564863.6	4191499.5	71.9	8.80	522.82	7.97	1.52	YES	
BOILER#3	0	0.47000E-01	564881.9	4191505.8	71.9	8.80	554.11	10.53	1.52	YES	
BOILER#4	0	0.56800E-01	564885.8	4191495.8	71.9	8.80	566.65	12.63	1.52	YES	
POURING	0	0.12800E-02	564847.8	4191467.0	70.1	14.94	293.15	4.62	0.56	YES	
ENG_62	0	0.47241E-02	565567.6	4191086.5	85.1	4.57	800.37	146.01	0.13	NO	
ENG_63	0	0.23600E-02	564668.2	4191897.5	70.2	4.57	799.85	152.00	0.13	NO	
ENG_64	0	0.72300E-03	565452.9	4191687.0	98.2	3.05	817.07	58.47	0.08	YES	
ENG_105	0	0.74200E-01	564939.1	4191457.8	71.1	4.57	810.96	70.10	0.23	YES	
ENG_106	0	0.62205E-01	564991.6	4191614.5	73.6	30.48	810.96	70.10	0.20	YES	
ENG_107	0	0.49776E-01	564767.4	4191906.8	76.2	0.00	810.96	70.10	0.18	YES	
ENG_108	0	0.49776E-01	564930.6	4191564.2	68.8	7.62	810.96	70.10	0.18	YES	
ENG_109	0	0.16596E-01	565615.8	4191801.2	111.7	3.05	810.96	70.10	0.15	YES	
ENG_110	0	0.82858E-02	564655.9	4191874.5	68.4	4.57	810.96	70.10	0.10	YES	
ENG_111	0	0.23810E-01	565091.1	4191757.8	78.9	3.05	810.96	70.10	0.11	YES	
ENG_112	0	0.20714E-01	565542.8	4191208.2	85.7	3.05	810.93	70.10	0.10	NO	
ENG_113	0	0.20714E-01	565673.6	4191194.8	92.0	3.05	810.93	70.10	0.10	NO	
ENG_114	0	0.20714E-01	565601.4	4191014.2	86.0	3.05	810.93	70.10	0.10	NO	
ENG_115	0	0.20714E-01	565702.9	4190991.8	91.4	3.05	810.93	70.10	0.10	NO	
ENG_116	0	0.20714E-01	564775.8	4191177.5	63.2	4.57	810.93	70.10	0.10	NO	
ENG_117	0	0.20714E-01	565575.9	4191609.0	99.3	3.05	810.96	70.10	0.10	YES	
ENG_118	0	0.98935E-02	564654.8	4191890.5	68.6	4.57	810.96	70.10	0.13	YES	
ENG_119	0	0.14531E-01	564728.8	4191771.0	70.5	4.57	810.96	70.10	0.08	YES	
ENG_120	0	0.10450E-01	565318.0	4191422.5	86.1	3.05	810.96	70.10	0.08	YES	
ENG_121	0	0.10388E-01	565926.2	4191443.0	118.9	3.05	810.93	70.10	0.08	NO	
ENG_123	0	0.12800E-01	565259.4	4191652.8	88.3	3.05	810.96	70.10	0.08	YES	
ENG_125	0	0.41058E-02	564811.2	4191460.8	67.7	3.05	810.96	70.10	0.08	YES	
ENG_126	0	0.33143E-02	565137.9	4191441.5	77.6	0.00	810.96	70.10	0.08	YES	
ENG_128	0	0.41429E-02	565469.2	4191955.2	109.8	3.05	810.96	70.10	0.05	YES	
ENG_129	0	0.41429E-02	565383.1	4191740.2	97.0	2.44	810.96	70.10	0.05	YES	
ENG_130	0	0.25692E-02	565533.3	4191713.5	98.9	2.44	815.40	134.54	0.08	YES	
ENG_131	0	0.72350E-03	564970.3	4191484.2	71.3	1.83	817.07	58.47	0.08	YES	
ENG_132	0	0.72350E-03	564800.3	4191781.8	74.3	1.83	817.07	58.47	0.08	YES	

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   E134_133      0   0.18674E-01  565380.0 4191939.2  104.3    3.05   769.29   135.05     0.13      YES


                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE   INIT.   INIT.   EMISSION RATE
      SOURCE    PART.  (GRAMS/SEC)     X        Y     ELEV.   HEIGHT    SY      SZ     SCALAR VARY
        ID      CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)    BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


      MHSTK5       0   0.24000E-03  564821.2 4191842.8   74.8    6.95    0.07    2.42
      STHSTK10     0   0.10700E-03  565522.6 4191880.8  112.8   14.02    0.29    5.39
      PAINT1       0   0.26600E-03  564917.1 4191432.5   72.0    4.57    3.54    4.25
      PAINT2       0   0.26600E-03  565322.7 4191834.8   96.0    4.57    3.54    4.25
      PAINT3       0   0.26600E-03  565541.5 4191525.8   97.0    4.57    3.54    4.25
      PAINT4       0   0.26600E-03  564865.7 4191751.0   77.0    4.57    3.54    4.25


                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

    GROUP ID                                        SOURCE IDs


   ALL       WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
 ,
             KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
 LSASTK2 ,
             LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
 LEWHSTK7,
             LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
 TANHSTKB,
             TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
 STHSTK5 ,
             STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
 ,
             GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
 MULSTK1 ,
             WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
 ,
             PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
 ENG_112 ,
             ENG_113 , ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 ,
 ENG_126 ,
             ENG_128 , ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

   WH        WHSTK1_8, WHSTK10 ,

   NWAF      NWAF9  ,

   MH        MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

   KH        KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

   BH        BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

   VLSB      VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

   LSA       LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

   LEW       LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,
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     LAT        LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,
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     TAN        TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

     HH         HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

     STH        STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 , STHSTK5 , STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10,

     GH         GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
     GHSTK12 ,

                GHSTK13 ,

     CH         CHSTK1  ,

     DH         DHSTK1  ,

     HES        HESSTK1 ,

     HIL        HILSTK1 ,

     MUL        MULSTK1 ,

     WEL        WELSTK1 ,

     NOENGINE  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
     ,

                KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
     LSASTK2 ,

                LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
     LEWHSTK7,

                LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
     TANHSTKB,

                TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
     STHSTK5 ,

                STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
     ,

                GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
     MULSTK1 ,

                WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
     ,

                PAINT4  ,
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     ENGINES   ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
     ENG_113 ,

                ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
     ENG_128 ,
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          ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

  PRINT     PRINTA , PRINTB , PRINTC ,

  COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

  HAZMAT    POURING ,

  PAINT     PAINT1 , PAINT2 , PAINT3 , PAINT4 ,

  ALL_LABS  WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
          STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
          GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
          WELSTK1 ,


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                        ** CONC OF CANCER   IN MICROGRAMS/M**3                   **

                                                                                      NETWORK
  GROUP ID                     AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


  ALL     1ST HIGHEST VALUE IS     4.23623 AT ( 565700.06,  4191711.25,    109.42,    0.00)  DC     NA
          2ND HIGHEST VALUE IS     4.14134 AT ( 565700.06,  4191711.25,    108.20,    0.00)  DC     NA
          3RD HIGHEST VALUE IS     3.13984 AT ( 564945.62,  4192065.50,    102.72,    0.00)  DC     NA
          4TH HIGHEST VALUE IS     2.70464 AT ( 565009.00,  4192130.00,    110.64,    0.00)  DC     NA
          5TH HIGHEST VALUE IS     2.68294 AT ( 566093.38,  4191024.75,    114.60,    0.00)  DC     NA
          6TH HIGHEST VALUE IS     2.62515 AT ( 564926.69,  4192158.75,    109.42,    0.00)  DC     NA
          7TH HIGHEST VALUE IS     2.08006 AT ( 566166.56,  4190836.25,    107.59,    0.00)  DC     NA
          8TH HIGHEST VALUE IS     1.91463 AT ( 566063.25,  4190799.75,    101.19,    0.00)  DC     NA
          9TH HIGHEST VALUE IS     1.67011 AT ( 565144.62,  4192620.50,    154.84,    0.00)  DC     NA
         10TH HIGHEST VALUE IS     1.55628 AT ( 565202.31,  4192629.00,    160.32,    0.00)  DC     NA


  WH      1ST HIGHEST VALUE IS     0.00050 AT ( 564945.62,  4192065.50,    102.72,    0.00)  DC     NA
          2ND HIGHEST VALUE IS     0.00045 AT ( 564228.31,  4192049.25,     64.62,    0.00)  DC     NA
          3RD HIGHEST VALUE IS     0.00040 AT ( 564487.38,  4192391.25,     80.16,    0.00)  DC     NA
          4TH HIGHEST VALUE IS     0.00034 AT ( 564926.69,  4192158.75,    109.42,    0.00)  DC     NA
          5TH HIGHEST VALUE IS     0.00034 AT ( 564160.38,  4192207.75,     64.31,    0.00)  DC     NA
          6TH HIGHEST VALUE IS     0.00032 AT ( 565009.00,  4192130.00,    110.64,    0.00)  DC     NA
          7TH HIGHEST VALUE IS     0.00032 AT ( 564249.94,  4192208.00,     66.75,    0.00)  DC     NA
          8TH HIGHEST VALUE IS     0.00029 AT ( 564079.94,  4192117.50,     61.57,    0.00)  DC     NA
          9TH HIGHEST VALUE IS     0.00029 AT ( 564591.56,  4192414.75,     83.82,    0.00)  DC     NA
         10TH HIGHEST VALUE IS     0.00028 AT ( 564933.25,  4191275.25,     71.32,    0.00)  DC     NA


  NWAF    1ST HIGHEST VALUE IS     0.00212 AT ( 564945.62,  4192065.50,    102.72,    0.00)  DC     NA
          2ND HIGHEST VALUE IS     0.00186 AT ( 565700.06,  4191711.25,    108.20,    0.00)  DC     NA
          3RD HIGHEST VALUE IS     0.00183 AT ( 564926.69,  4192158.75,    109.42,    0.00)  DC     NA
          4TH HIGHEST VALUE IS     0.00182 AT ( 565700.06,  4191711.25,    109.42,    0.00)  DC     NA
          5TH HIGHEST VALUE IS     0.00175 AT ( 565009.00,  4192130.00,    110.64,    0.00)  DC     NA
          6TH HIGHEST VALUE IS     0.00131 AT ( 564933.25,  4191275.25,     71.32,    0.00)  DC     NA
          7TH HIGHEST VALUE IS     0.00093 AT ( 565070.19,  4191077.50,     70.41,    0.00)  DC     NA
          8TH HIGHEST VALUE IS     0.00092 AT ( 564735.81,  4192658.00,    100.28,    0.00)  DC     NA
          9TH HIGHEST VALUE IS     0.00092 AT ( 564729.75,  4192662.25,    100.28,    0.00)  DC     NA
         10TH HIGHEST VALUE IS     0.00085 AT ( 566063.25,  4190799.75,    101.19,    0.00)  DC     NA
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                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


                    ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                              NETWORK
GROUP ID                       AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MH      1ST HIGHEST VALUE IS     0.01205 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.00964 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC      NA
        3RD HIGHEST VALUE IS     0.00774 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC      NA
        4TH HIGHEST VALUE IS     0.00765 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC      NA
        5TH HIGHEST VALUE IS     0.00695 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC      NA
        6TH HIGHEST VALUE IS     0.00664 AT (  564249.94,  4192208.00,     66.75,    0.00)  DC      NA
        7TH HIGHEST VALUE IS     0.00607 AT (  564933.25,  4191275.25,     71.32,    0.00)  DC      NA
        8TH HIGHEST VALUE IS     0.00594 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC      NA
        9TH HIGHEST VALUE IS     0.00593 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC      NA
       10TH HIGHEST VALUE IS     0.00528 AT (  564525.06,  4192613.75,     85.65,    0.00)  DC      NA


KH      1ST HIGHEST VALUE IS     0.10497 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.06941 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC      NA
        3RD HIGHEST VALUE IS     0.06837 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC      NA
        4TH HIGHEST VALUE IS     0.05117 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC      NA
        5TH HIGHEST VALUE IS     0.04484 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC      NA
        6TH HIGHEST VALUE IS     0.04470 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC      NA
        7TH HIGHEST VALUE IS     0.04402 AT (  564249.94,  4192208.00,     66.75,    0.00)  DC      NA
        8TH HIGHEST VALUE IS     0.04354 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC      NA
        9TH HIGHEST VALUE IS     0.03574 AT (  564933.25,  4191275.25,     71.32,    0.00)  DC      NA
       10TH HIGHEST VALUE IS     0.03521 AT (  564160.38,  4192207.75,     64.31,    0.00)  DC      NA


BH      1ST HIGHEST VALUE IS     0.01456 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.00936 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC      NA
        3RD HIGHEST VALUE IS     0.00840 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC      NA
        4TH HIGHEST VALUE IS     0.00642 AT (  564249.94,  4192208.00,     66.75,    0.00)  DC      NA
        5TH HIGHEST VALUE IS     0.00612 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC      NA
        6TH HIGHEST VALUE IS     0.00611 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC      NA
        7TH HIGHEST VALUE IS     0.00592 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC      NA
        8TH HIGHEST VALUE IS     0.00526 AT (  564228.31,  4192049.25,     64.62,    0.00)  DC      NA
        9TH HIGHEST VALUE IS     0.00518 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC      NA
       10TH HIGHEST VALUE IS     0.00504 AT (  564160.38,  4192207.75,     64.31,    0.00)  DC      NA



                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


                    ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                              NETWORK
GROUP ID                       AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


VLSB    1ST HIGHEST VALUE IS     0.01496 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.01074 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC      NA
        3RD HIGHEST VALUE IS     0.01067 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC      NA
        4TH HIGHEST VALUE IS     0.00958 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC      NA
        5TH HIGHEST VALUE IS     0.00956 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC      NA
        6TH HIGHEST VALUE IS     0.00901 AT (  565328.31,  4191032.50,     74.68,    0.00)  DC      NA
        7TH HIGHEST VALUE IS     0.00716 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC      NA
        8TH HIGHEST VALUE IS     0.00668 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC      NA
        9TH HIGHEST VALUE IS     0.00650 AT (  566063.25,  4190799.75,    101.19,    0.00)  DC      NA
       10TH HIGHEST VALUE IS     0.00628 AT (  565070.19,  4191077.50,     70.41,    0.00)  DC      NA


LSA     1ST HIGHEST VALUE IS     0.05449 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.03357 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC      NA
        3RD HIGHEST VALUE IS     0.03354 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC      NA
        4TH HIGHEST VALUE IS     0.03306 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC      NA
        5TH HIGHEST VALUE IS     0.03262 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC      NA
        6TH HIGHEST VALUE IS     0.03137 AT (  565070.19,  4191077.50,     70.41,    0.00)  DC      NA
        7TH HIGHEST VALUE IS     0.03074 AT (  564933.25,  4191275.25,     71.32,    0.00)  DC      NA
        8TH HIGHEST VALUE IS     0.03065 AT (  565328.31,  4191032.50,     74.68,    0.00)  DC      NA
        9TH HIGHEST VALUE IS     0.02297 AT (  564249.94,  4192208.00,     66.75,    0.00)  DC      NA
       10TH HIGHEST VALUE IS     0.02253 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC      NA


LEW     1ST HIGHEST VALUE IS     0.13049 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.12792 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC      NA
        3RD HIGHEST VALUE IS     0.02055 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC      NA
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              4TH HIGHEST VALUE IS        0.01899 AT (  565233.75,  4192605.00,      159.72,       0.00)  DC      NA
              5TH HIGHEST VALUE IS        0.01856 AT (  565202.31,  4192629.00,      160.32,       0.00)  DC      NA
              6TH HIGHEST VALUE IS        0.01851 AT (  565009.00,  4192130.00,      110.64,       0.00)  DC      NA
              7TH HIGHEST VALUE IS        0.01603 AT (  566093.38,  4191024.75,      114.60,       0.00)  DC      NA
              8TH HIGHEST VALUE IS        0.01581 AT (  564926.69,  4192158.75,      109.42,       0.00)  DC      NA
              9TH HIGHEST VALUE IS        0.01508 AT (  564945.62,  4192065.50,      102.72,       0.00)  DC      NA
             10TH HIGHEST VALUE IS        0.01166 AT (  566166.56,  4190836.25,      107.59,       0.00)  DC      NA


                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                        ** CONC OF CANCER   IN MICROGRAMS/M**3                          **

                                                                                         NETWORK
GROUP ID                           AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


LAT    1ST HIGHEST VALUE IS        0.17545 AT (  565700.06,  4191711.25,      109.42,       0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.16401 AT (  565700.06,  4191711.25,      108.20,       0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.04856 AT (  565144.62,  4192620.50,      154.84,       0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.04470 AT (  565009.00,  4192130.00,      110.64,       0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.04229 AT (  565233.75,  4192605.00,      159.72,       0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.04174 AT (  565202.31,  4192629.00,      160.32,       0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.03761 AT (  564926.69,  4192158.75,      109.42,       0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.03234 AT (  564945.62,  4192065.50,      102.72,       0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.02551 AT (  566093.38,  4191024.75,      114.60,       0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.01968 AT (  564735.81,  4192658.00,      100.28,       0.00)  DC      NA


TAN    1ST HIGHEST VALUE IS        0.09371 AT (  565700.06,  4191711.25,      109.42,       0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.08884 AT (  565700.06,  4191711.25,      108.20,       0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.02239 AT (  565009.00,  4192130.00,      110.64,       0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.01915 AT (  565144.62,  4192620.50,      154.84,       0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.01874 AT (  564926.69,  4192158.75,      109.42,       0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.01688 AT (  564945.62,  4192065.50,      102.72,       0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.01667 AT (  565233.75,  4192605.00,      159.72,       0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.01663 AT (  565202.31,  4192629.00,      160.32,       0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.01141 AT (  566093.38,  4191024.75,      114.60,       0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.00927 AT (  564735.81,  4192658.00,      100.28,       0.00)  DC      NA


HH     1ST HIGHEST VALUE IS        0.36596 AT (  565700.06,  4191711.25,      109.42,       0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.34145 AT (  565700.06,  4191711.25,      108.20,       0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.03798 AT (  565009.00,  4192130.00,      110.64,       0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.03328 AT (  564926.69,  4192158.75,      109.42,       0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.03276 AT (  564945.62,  4192065.50,      102.72,       0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.03196 AT (  565144.62,  4192620.50,      154.84,       0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.02911 AT (  565233.75,  4192605.00,      159.72,       0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.02867 AT (  565202.31,  4192629.00,      160.32,       0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.02281 AT (  566093.38,  4191024.75,      114.60,       0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.01836 AT (  564735.81,  4192658.00,      100.28,       0.00)  DC      NA


                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                        ** CONC OF CANCER   IN MICROGRAMS/M**3                          **

                                                                                         NETWORK
GROUP ID                           AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


STH    1ST HIGHEST VALUE IS        0.01282 AT (  565700.06,  4191711.25,      109.42,       0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.01221 AT (  565700.06,  4191711.25,      108.20,       0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.00612 AT (  565009.00,  4192130.00,      110.64,       0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.00490 AT (  564926.69,  4192158.75,      109.42,       0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.00474 AT (  565144.62,  4192620.50,      154.84,       0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.00428 AT (  565233.75,  4192605.00,      159.72,       0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.00428 AT (  565202.31,  4192629.00,      160.32,       0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.00341 AT (  564945.62,  4192065.50,      102.72,       0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.00236 AT (  564735.81,  4192658.00,      100.28,       0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.00235 AT (  564729.75,  4192662.25,      100.28,       0.00)  DC      NA


GH     1ST HIGHEST VALUE IS        0.13462 AT (  565700.06,  4191711.25,      109.42,       0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.13113 AT (  565700.06,  4191711.25,      108.20,       0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.02028 AT (  565009.00,  4192130.00,      110.64,       0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.01775 AT (  564945.62,  4192065.50,      102.72,       0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.01730 AT (  564926.69,  4192158.75,      109.42,       0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.01201 AT (  565144.62,  4192620.50,      154.84,       0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.01090 AT (  565233.75,  4192605.00,      159.72,       0.00)  DC      NA
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           8TH HIGHEST VALUE IS        0.01080 AT (  565202.31,  4192629.00,    160.32,      0.00)  DC      NA
           9TH HIGHEST VALUE IS        0.00941 AT (  566093.38,  4191024.75,    114.60,      0.00)  DC      NA
          10TH HIGHEST VALUE IS        0.00805 AT (  564735.81,  4192658.00,    100.28,      0.00)  DC      NA


CH         1ST HIGHEST VALUE IS        0.00031 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
           2ND HIGHEST VALUE IS        0.00031 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
           3RD HIGHEST VALUE IS        0.00030 AT (  565144.62,  4192620.50,    154.84,      0.00)  DC      NA
           4TH HIGHEST VALUE IS        0.00030 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
           5TH HIGHEST VALUE IS        0.00027 AT (  565202.31,  4192629.00,    160.32,      0.00)  DC      NA
           6TH HIGHEST VALUE IS        0.00027 AT (  565233.75,  4192605.00,    159.72,      0.00)  DC      NA
           7TH HIGHEST VALUE IS        0.00024 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
           8TH HIGHEST VALUE IS        0.00015 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
           9TH HIGHEST VALUE IS        0.00013 AT (  564735.81,  4192658.00,    100.28,      0.00)  DC      NA
          10TH HIGHEST VALUE IS        0.00013 AT (  564729.75,  4192662.25,    100.28,      0.00)  DC      NA



                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CANCER   IN MICROGRAMS/M**3                          **

                                                                                          NETWORK
GROUP ID                        AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


DH         1ST HIGHEST VALUE IS        0.00060 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
           2ND HIGHEST VALUE IS        0.00057 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
           3RD HIGHEST VALUE IS        0.00055 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
           4TH HIGHEST VALUE IS        0.00048 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
           5TH HIGHEST VALUE IS        0.00039 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
           6TH HIGHEST VALUE IS        0.00033 AT (  565144.62,  4192620.50,    154.84,      0.00)  DC      NA
           7TH HIGHEST VALUE IS        0.00028 AT (  565233.75,  4192605.00,    159.72,      0.00)  DC      NA
           8TH HIGHEST VALUE IS        0.00028 AT (  565202.31,  4192629.00,    160.32,      0.00)  DC      NA
           9TH HIGHEST VALUE IS        0.00027 AT (  564735.81,  4192658.00,    100.28,      0.00)  DC      NA
          10TH HIGHEST VALUE IS        0.00026 AT (  564729.75,  4192662.25,    100.28,      0.00)  DC      NA


HES        1ST HIGHEST VALUE IS        0.00908 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
           2ND HIGHEST VALUE IS        0.00685 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
           3RD HIGHEST VALUE IS        0.00667 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
           4TH HIGHEST VALUE IS        0.00475 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
           5TH HIGHEST VALUE IS        0.00473 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
           6TH HIGHEST VALUE IS        0.00201 AT (  566093.38,  4191024.75,    114.60,      0.00)  DC      NA
           7TH HIGHEST VALUE IS        0.00191 AT (  564735.81,  4192658.00,    100.28,      0.00)  DC      NA
           8TH HIGHEST VALUE IS        0.00190 AT (  564729.75,  4192662.25,    100.28,      0.00)  DC      NA
           9TH HIGHEST VALUE IS        0.00187 AT (  565144.62,  4192620.50,    154.84,      0.00)  DC      NA
          10TH HIGHEST VALUE IS        0.00185 AT (  565233.75,  4192605.00,    159.72,      0.00)  DC      NA


HIL        1ST HIGHEST VALUE IS        0.00803 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
           2ND HIGHEST VALUE IS        0.00483 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
           3RD HIGHEST VALUE IS        0.00403 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
           4TH HIGHEST VALUE IS        0.00322 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
           5TH HIGHEST VALUE IS        0.00320 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
           6TH HIGHEST VALUE IS        0.00297 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA
           7TH HIGHEST VALUE IS        0.00292 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
           8TH HIGHEST VALUE IS        0.00206 AT (  564525.06,  4192613.75,     85.65,      0.00)  DC      NA
           9TH HIGHEST VALUE IS        0.00195 AT (  564729.75,  4192662.25,    100.28,      0.00)  DC      NA
          10TH HIGHEST VALUE IS        0.00194 AT (  564249.94,  4192208.00,     66.75,      0.00)  DC      NA



                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CANCER   IN MICROGRAMS/M**3                          **

                                                                                          NETWORK
GROUP ID                        AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MUL        1ST HIGHEST VALUE IS        0.00003 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
           2ND HIGHEST VALUE IS        0.00002 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
           3RD HIGHEST VALUE IS        0.00002 AT (  564933.25,  4191275.25,     71.32,      0.00)  DC      NA
           4TH HIGHEST VALUE IS        0.00002 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
           5TH HIGHEST VALUE IS        0.00002 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
           6TH HIGHEST VALUE IS        0.00002 AT (  564249.94,  4192208.00,     66.75,      0.00)  DC      NA
           7TH HIGHEST VALUE IS        0.00002 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
           8TH HIGHEST VALUE IS        0.00002 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
           9TH HIGHEST VALUE IS        0.00002 AT (  564228.31,  4192049.25,     64.62,      0.00)  DC      NA
          10TH HIGHEST VALUE IS        0.00001 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA
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WEL      1ST HIGHEST VALUE IS       0.00014 AT (   564945.62,   4192065.50,      102.72,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.00010 AT (   565009.00,   4192130.00,      110.64,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.00010 AT (   564926.69,   4192158.75,      109.42,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.00008 AT (   564487.38,   4192391.25,       80.16,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.00007 AT (   565700.06,   4191711.25,      108.20,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.00007 AT (   565700.06,   4191711.25,      109.42,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.00006 AT (   564591.56,   4192414.75,       83.82,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.00005 AT (   564249.94,   4192208.00,       66.75,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.00004 AT (   564525.06,   4192613.75,       85.65,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.00004 AT (   564160.38,   4192207.75,       64.31,      0.00)  DC      NA

NOENGINE 1ST HIGHEST VALUE IS       1.44572 AT (   565700.06,   4191711.25,      109.42,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       1.38106 AT (   565700.06,   4191711.25,      108.20,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.87957 AT (   565144.62,   4192620.50,      154.84,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.82426 AT (   565202.31,   4192629.00,      160.32,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.80504 AT (   565233.75,   4192605.00,      159.72,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.63489 AT (   566729.00,   4190469.25,      136.86,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.61987 AT (   566093.38,   4191024.75,      114.60,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.54528 AT (   567269.62,   4189942.75,      174.65,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.53751 AT (   565009.00,   4192130.00,      110.64,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.49882 AT (   564926.69,   4192158.75,      109.42,      0.00)  DC      NA



                       *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                          NETWORK
GROUP ID                     AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


ENGINES  1ST HIGHEST VALUE IS       2.79101 AT (   565700.06,   4191711.25,      109.42,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       2.76074 AT (   565700.06,   4191711.25,      108.20,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       2.64388 AT (   564945.62,   4192065.50,      102.72,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       2.16735 AT (   565009.00,   4192130.00,      110.64,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       2.12656 AT (   564926.69,   4192158.75,      109.42,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       2.06330 AT (   566093.38,   4191024.75,      114.60,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       1.64934 AT (   566166.56,   4190836.25,      107.59,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       1.56530 AT (   566063.25,   4190799.75,      101.19,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       1.25724 AT (   564933.25,   4191275.25,       71.32,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       1.23119 AT (   565070.19,   4191077.50,       70.41,      0.00)  DC      NA

PRINT    1ST HIGHEST VALUE IS       0.00502 AT (   564933.25,   4191275.25,       71.32,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.00473 AT (   564839.88,   4191259.75,       67.36,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.00411 AT (   564859.75,   4191226.00,       67.67,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.00281 AT (   565070.19,   4191077.50,       70.41,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.00235 AT (   564228.31,   4192049.25,       64.62,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.00189 AT (   564786.81,   4191021.25,       61.26,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.00182 AT (   564079.94,   4192117.50,       61.57,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.00159 AT (   565328.31,   4191032.50,       74.68,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.00149 AT (   564160.38,   4192207.75,       64.31,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.00142 AT (   564249.94,   4192208.00,       66.75,      0.00)  DC      NA

COMBUST  1ST HIGHEST VALUE IS       0.69838 AT (   565144.62,   4192620.50,      154.84,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.66312 AT (   565202.31,   4192629.00,      160.32,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.64212 AT (   565233.75,   4192605.00,      159.72,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.55230 AT (   566729.00,   4190469.25,      136.86,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.49475 AT (   567269.62,   4189942.75,      174.65,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.47189 AT (   566093.38,   4191024.75,      114.60,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.40619 AT (   565700.06,   4191711.25,      109.42,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.38784 AT (   565700.06,   4191711.25,      108.20,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.38684 AT (   567693.00,   4189595.75,      193.24,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.31127 AT (   566166.56,   4190836.25,      107.59,      0.00)  DC      NA



                       *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                          NETWORK
GROUP ID                     AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


HAZMAT   1ST HIGHEST VALUE IS       0.01967 AT (   564933.25,   4191275.25,       71.32,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.00840 AT (   565070.19,   4191077.50,       70.41,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.00756 AT (   564859.75,   4191226.00,       67.67,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.00591 AT (   564839.88,   4191259.75,       67.36,      0.00)  DC      NA
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        5TH HIGHEST VALUE IS        0.00575 AT (    565328.31,    4191032.50,     74.68,     0.00)  DC      NA
        6TH HIGHEST VALUE IS        0.00488 AT (    565130.12,    4190916.25,     66.75,     0.00)  DC      NA
        7TH HIGHEST VALUE IS        0.00432 AT (    564228.31,    4192049.25,     64.62,     0.00)  DC      NA
        8TH HIGHEST VALUE IS        0.00402 AT (    564945.62,    4192065.50,    102.72,     0.00)  DC      NA
        9TH HIGHEST VALUE IS        0.00398 AT (    564249.94,    4192208.00,     66.75,     0.00)  DC      NA
       10TH HIGHEST VALUE IS        0.00354 AT (    564160.38,    4192207.75,     64.31,     0.00)  DC      NA

PAINT   1ST HIGHEST VALUE IS        0.01170 AT (    565700.06,    4191711.25,    109.42,     0.00)  DC      NA
        2ND HIGHEST VALUE IS        0.01170 AT (    565700.06,    4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS        0.01137 AT (    564945.62,    4192065.50,    102.72,     0.00)  DC      NA
        4TH HIGHEST VALUE IS        0.01107 AT (    565009.00,    4192130.00,    110.64,     0.00)  DC      NA
        5TH HIGHEST VALUE IS        0.01059 AT (    564933.25,    4191275.25,     71.32,     0.00)  DC      NA
        6TH HIGHEST VALUE IS        0.00950 AT (    564926.69,    4192158.75,    109.42,     0.00)  DC      NA
        7TH HIGHEST VALUE IS        0.00557 AT (    565070.19,    4191077.50,     70.41,     0.00)  DC      NA
        8TH HIGHEST VALUE IS        0.00442 AT (    565328.31,    4191032.50,     74.68,     0.00)  DC      NA
        9TH HIGHEST VALUE IS        0.00424 AT (    564487.38,    4192391.25,     80.16,     0.00)  DC      NA
       10TH HIGHEST VALUE IS        0.00421 AT (    564591.56,    4192414.75,     83.82,     0.00)  DC      NA

ALL_LABS 1ST HIGHEST VALUE IS       1.02400 AT (    565700.06,    4191711.25,    109.42,     0.00)  DC      NA
        2ND HIGHEST VALUE IS        0.97771 AT (    565700.06,    4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS        0.33743 AT (    564945.62,    4192065.50,    102.72,     0.00)  DC      NA
        4TH HIGHEST VALUE IS        0.29570 AT (    565009.00,    4192130.00,    110.64,     0.00)  DC      NA
        5TH HIGHEST VALUE IS        0.27118 AT (    564926.69,    4192158.75,    109.42,     0.00)  DC      NA
        6TH HIGHEST VALUE IS        0.17730 AT (    565144.62,    4192620.50,    154.84,     0.00)  DC      NA
        7TH HIGHEST VALUE IS        0.15931 AT (    565233.75,    4192605.00,    159.72,     0.00)  DC      NA
        8TH HIGHEST VALUE IS        0.15764 AT (    565202.31,    4192629.00,    160.32,     0.00)  DC      NA
        9TH HIGHEST VALUE IS        0.14063 AT (    566093.38,    4191024.75,    114.60,     0.00)  DC      NA
       10TH HIGHEST VALUE IS        0.14058 AT (    564487.38,    4192391.25,     80.16,     0.00)  DC      NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh - Strawberry Canyon Receptor          ***
*** Model Executed on 02/04/04 at 18:24:12 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Can-Strawberry.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Can-Strawberry.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc

      Number of sources -        126
Number of source groups -          7
    Number of receptors -          1


                              *** POINT SOURCE DATA ***


          NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
  SOURCE   PART.  (GRAMS/SEC)    X        Y        ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
    ID     CATS.             (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8    0   0.44700E-04  564704.4 4191782.8   66.8   31.70  293.15    7.12     0.19      YES
  NWAF9       0   0.60100E-03  564718.8 4191791.2   66.8   29.57  293.15   16.48     0.74      YES
  WHSTK10     0   0.44700E-04  564724.4 4191826.0   66.8    8.60  293.15    7.12     0.34      YES
  MHSTK1      0   0.24000E-03  564794.4 4191795.8   74.8    7.61  293.15   17.25     0.34      YES
  MHSTK2      0   0.24000E-03  564798.6 4191843.0   74.8   10.89  293.15   17.25     0.29      YES
  MHSTK3      0   0.24000E-03  564794.1 4191843.0   74.8   10.89  293.15   17.25     0.48      YES
  MHSTK4      0   0.24000E-03  564800.9 4191787.2   74.8   15.61  293.15   17.25     0.33      YES
  MHSTK6      0   0.24000E-03  564801.3 4191808.2   74.8   10.94  293.15   17.25     0.34      YES
  KHSTK1      0   0.33000E-02  564761.1 4191879.8   72.7   18.45  293.15    1.28     2.76      YES
  KHSTK2      0   0.33000E-02  564759.4 4191891.8   72.7   18.45  293.15    1.28     2.76      YES
  KHSTK3      0   0.33000E-02  564732.4 4191877.5   72.7   18.45  293.15    1.28     2.76      YES
  KHSTK4      0   0.33000E-02  564731.4 4191889.0   72.7   18.45  293.15    1.28     2.76      YES
  BHSTK1      0   0.45600E-03  564678.9 4191889.0   67.4   27.85  293.15    2.78     1.26      YES
  BHSTK2      0   0.45600E-03  564675.0 4191896.8   67.4   29.68  293.15    2.78     1.26      YES
  BHSTK3      0   0.45600E-03  564704.5 4191893.8   67.4   29.68  293.15    2.78     1.26      YES
  BHSTK4      0   0.45600E-03  564707.4 4191887.8   67.4   33.34  293.15    2.78     0.37      YES
  BHSTK5      0   0.45600E-03  564691.6 4191888.0   67.4   33.34  293.15    2.78     0.37      YES
  VLSBSTK1    0   0.77100E-03  564933.6 4191633.2   64.4   27.04  293.15    3.97     1.22      YES
  VLSBSTK2    0   0.77100E-03  564954.0 4191566.5   64.4   27.04  293.15    3.97     1.22      YES
  VLSBSTK3    0   0.77100E-03  565051.3 4191594.8   64.4   27.04  293.15    3.97     1.22      YES
  VLSBSTK4    0   0.77100E-03  565030.6 4191662.2   64.4   27.04  293.15    3.97     1.22      YES
  LSASTK1     0   0.16600E-02  564892.2 4191637.2   64.4   28.31  293.15    5.18     1.22      YES
  LSASTK2     0   0.16600E-02  564875.9 4191632.8   64.4   28.31  293.15    5.18     1.22      YES
  LSASTK3     0   0.16600E-02  564907.6 4191580.5   64.4   28.31  293.15    5.18     1.22      YES
  LSASTK4     0   0.16600E-02  564897.1 4191578.0   64.4   28.31  293.15    5.18     1.22      YES
  LSASTK5     0   0.16600E-02  564908.6 4191576.2   64.4   28.31  293.15    5.18     1.22      YES
  LSASTK6     0   0.16600E-02  564899.1 4191573.5   64.4   28.31  293.15    5.18     1.22      YES
  LSASTK7     0   0.16600E-02  564900.8 4191572.2   64.4   28.31  293.15    5.18     0.30      YES
  LEWHSTK1    0   0.63700E-03  565605.8 4191772.0  106.7   12.80  293.15    3.11     0.36      YES
  LEWHSTK2    0   0.63700E-03  565591.5 4191786.0  106.7   12.80  293.15    3.11     0.36      YES
  LEWHSTK3    0   0.63700E-03  565585.9 4191792.2  106.7   12.80  293.15    3.11     0.36      YES
  LEWHSTK4    0   0.63700E-03  565583.1 4191800.0  106.7   12.80  293.15    3.11     0.36      YES
  LEWHSTK5    0   0.63700E-03  565598.1 4191787.8  106.7   12.80  293.15    3.11     0.36      YES
  LEWHSTK6    0   0.63700E-03  565619.4 4191775.8  106.7   12.80  293.15    3.11     0.36      YES
  LEWHSTK7    0   0.63700E-03  565608.8 4191787.2  106.7   12.80  293.15    3.11     0.36      YES
  LEWHSTK8    0   0.63700E-03  565597.6 4191800.5  106.7   12.80  293.15    3.11     0.30      YES
  LEWHSTK9    0   0.63700E-03  565593.3 4191808.2  106.7   12.80  293.15    3.11     0.36      YES
  LATHSTK1    0   0.27200E-02  565555.1 4191799.2  104.6   42.37  293.15    6.28     0.34      YES
  LATHSTK2    0   0.27200E-02  565561.1 4191812.0  104.6   36.88  293.15    6.28     0.70      YES
  LATHSTK3    0   0.27200E-02  565531.6 4191800.2  104.6   36.88  293.15    6.28     0.48      YES


                              *** POINT SOURCE DATA ***


          NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
  SOURCE   PART.  (GRAMS/SEC)    X        Y        ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
    ID     CATS.             (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  LATHSTK4    0   0.27200E-02  565515.1 4191799.5  104.6   37.19  293.15    6.28     0.96      YES
  LATHSTK5    0   0.27200E-02  565539.7 4191794.2  104.6   42.37  293.15    6.28     0.70      YES
  LATHSTK6    0   0.27200E-02  565527.3 4191776.0  104.6   38.40  293.15    6.28     0.74      YES
  LATHSTK7    0   0.27200E-02  565544.9 4191781.5  104.6   38.40  293.15    6.28     0.31      YES
  LATHSTK8    0   0.27200E-02  565562.3 4191787.0  104.6   38.40  293.15    6.28     0.70      YES
  TANHSTKA    0   0.23500E-02  565492.1 4191793.2  100.6   39.32  293.15    2.94     1.69      YES
  TANHSTKB    0   0.23500E-02  565496.8 4191794.0  100.6   39.32  293.15    2.94     1.69      YES
  TANHSTKC    0   0.23500E-02  565494.1 4191787.2  100.6   39.32  293.15    2.94     1.69      YES
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TANHSTKD     0   0.23500E-02  565499.1 4191788.2  100.6   39.32   293.15    2.94    1.69      YES
HHSTKA       0   0.26000E-02  565540.8 4191749.5  103.6   20.12   293.15    4.15    1.52      YES
HHSTKB       0   0.26000E-02  565565.6 4191756.8  103.6   20.12   293.15    4.15    1.52      YES
HHSTKC       0   0.26000E-02  565576.8 4191717.8  103.6   20.12   293.15    4.15    1.52      YES
HHSTKD       0   0.26000E-02  565553.2 4191710.5  103.6   20.12   293.15    4.15    1.52      YES
HHSTKE       0   0.26000E-02  565543.4 4191746.5  103.6   20.12   293.15    4.15    0.81      YES
STHSTK1      0   0.10700E-03  565530.3 4191891.8  112.8   13.87   293.15    2.17    0.27      YES
STHSTK2      0   0.10700E-03  565522.0 4191918.2  112.8   13.87   293.15    2.17    0.34      YES
STHSTK3      0   0.10700E-03  565537.9 4191871.8  112.8   17.56   293.15    2.17    0.34      YES
STHSTK4      0   0.10700E-03  565529.5 4191871.8  112.8   13.87   293.15    2.17    0.34      YES
STHSTK5      0   0.10700E-03  565530.9 4191870.0  112.8   14.02   293.15    2.17    0.34      YES
STHSTK6      0   0.10700E-03  565530.1 4191869.5  112.8   14.02   293.15    2.17    0.27      YES
STHSTK7      0   0.10700E-03  565532.6 4191866.5  112.8   14.02   293.15    2.17    0.39      YES
STHSTK8      0   0.10700E-03  565538.2 4191864.0  112.8   14.02   293.15    2.17    0.27      YES
STHSTK9      0   0.10700E-03  565525.9 4191880.5  112.8   14.02   293.15    2.17    0.53      YES
STHSTK11     0   0.10700E-03  565519.0 4191907.5  112.8   13.87   293.15    2.17    0.34      YES
GHSTK1       0   0.36700E-03  565507.1 4191756.0  103.6   16.06   293.15    5.92    0.30      YES
GHSTK2       0   0.36700E-03  565510.6 4191744.8  103.6   16.06   293.15    5.92    0.25      YES
GHSTK3       0   0.36700E-03  565512.4 4191739.0  103.6   16.37   293.15    5.92    0.30      YES
GHSTK4       0   0.36700E-03  565514.7 4191737.8  103.6   15.91   293.15    5.92    0.31      YES
GHSTK5       0   0.36700E-03  565514.9 4191732.2  103.6   16.06   293.15    5.92    0.30      YES
GHSTK6       0   0.36700E-03  565500.2 4191755.2  103.6   16.12   293.15    5.92    0.30      YES
GHSTK7       0   0.36700E-03  565501.1 4191753.0  103.6   16.37   293.15    5.92    0.84      YES
GHSTK8       0   0.36700E-03  565503.7 4191744.2  103.6   16.00   293.15    5.92    0.30      YES
GHSTK9       0   0.36700E-03  565505.2 4191740.2  103.6   16.37   293.15    5.92    0.26      YES
GHSTK10      0   0.36700E-03  565506.9 4191735.2  103.6   16.06   293.15    5.92    0.30      YES
GHSTK11      0   0.36700E-03  565509.7 4191728.2  103.6   16.22   293.15    5.92    0.30      YES
GHSTK12      0   0.36700E-03  565509.0 4191725.5  103.6   16.06   293.15    5.92    0.30      YES
GHSTK13      0   0.36700E-03  565516.9 4191725.8  103.6   15.91   293.15    5.92    0.40      YES
CHSTK1       0   0.86900E-04  565393.9 4192008.8  110.3   26.85   293.15    2.00    1.00      YES
DHSTK1       0   0.95300E-04  565329.4 4191982.0  107.2   16.36   293.15    2.00    1.00      YES
HESSTK1      0   0.73300E-03  565234.6 4191926.2   98.2   15.39   293.15    2.00    1.00      YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
HILSTK1	0	0.72100E-03	564874.6	4191815.0	80.4	14.96	293.15	2.00	1.00	YES	
MULSTK1	0	0.53300E-05	564779.7	4191737.8	74.4	17.24	293.15	2.00	1.00	YES	
WELSTK1	0	0.13600E-04	564933.7	4191795.2	81.7	5.89	293.15	2.00	1.00	YES	
PRINTA	0	0.86300E-04	564584.7	4191553.2	60.0	8.91	293.15	2.70	0.84	YES	
PRINTB	0	0.86300E-04	564614.4	4191520.8	60.0	8.91	293.15	2.70	0.84	YES	
PRINTC	0	0.86300E-04	564643.1	4191525.5	60.0	8.91	293.15	2.70	0.60	YES	
COGEN	0	0.97700E+00	564876.0	4191492.0	71.9	12.77	430.37	10.45	2.28	YES	
BOILER#2	0	0.12280E-01	564863.6	4191499.5	71.9	8.80	522.82	7.97	1.52	YES	
BOILER#3	0	0.47000E-01	564881.9	4191505.8	71.9	8.80	554.11	10.53	1.52	YES	
BOILER#4	0	0.56800E-01	564885.8	4191495.8	71.9	8.80	566.65	12.63	1.52	YES	
POURING	0	0.12800E-02	564847.8	4191467.0	70.1	14.94	293.15	4.62	0.56	YES	
ENG_62	0	0.47241E-02	565567.6	4191086.5	85.1	4.57	800.37	146.01	0.13	NO	
ENG_63	0	0.23600E-02	564668.2	4191897.5	70.2	4.57	799.85	152.00	0.13	NO	
ENG_64	0	0.72300E-03	565452.9	4191687.0	98.2	3.05	817.07	58.47	0.08	YES	
ENG_105	0	0.74200E-01	564939.1	4191457.8	71.1	4.57	810.96	70.10	0.23	YES	
ENG_106	0	0.62205E-01	564991.6	4191614.5	73.6	30.48	810.96	70.10	0.20	YES	
ENG_107	0	0.49776E-01	564767.4	4191906.8	76.2	0.00	810.96	70.10	0.18	YES	
ENG_108	0	0.49776E-01	564930.6	4191564.2	68.8	7.62	810.96	70.10	0.18	YES	
ENG_109	0	0.16596E-01	565615.8	4191801.2	111.7	3.05	810.96	70.10	0.15	YES	
ENG_110	0	0.82858E-02	564655.9	4191874.5	68.4	4.57	810.96	70.10	0.10	YES	
ENG_111	0	0.23810E-01	565091.1	4191757.8	78.9	3.05	810.96	70.10	0.11	YES	
ENG_112	0	0.20714E-01	565542.8	4191208.2	85.7	3.05	810.93	70.10	0.10	NO	
ENG_113	0	0.20714E-01	565673.6	4191194.8	92.0	3.05	810.93	70.10	0.10	NO	
ENG_114	0	0.20714E-01	565601.4	4191014.2	86.0	3.05	810.93	70.10	0.10	NO	
ENG_115	0	0.20714E-01	565702.9	4190991.8	91.4	3.05	810.93	70.10	0.10	NO	
ENG_116	0	0.20714E-01	564775.8	4191177.5	63.2	4.57	810.93	70.10	0.10	NO	
ENG_117	0	0.20714E-01	565575.9	4191609.0	99.3	3.05	810.96	70.10	0.10	YES	
ENG_118	0	0.98935E-02	564654.8	4191890.5	68.6	4.57	810.96	70.10	0.13	YES	
ENG_119	0	0.14531E-01	564728.8	4191771.0	70.5	4.57	810.96	70.10	0.08	YES	
ENG_120	0	0.10450E-01	565318.0	4191422.5	86.1	3.05	810.96	70.10	0.08	YES	
ENG_121	0	0.10388E-01	565926.2	4191443.0	118.9	3.05	810.93	70.10	0.08	NO	
ENG_123	0	0.12800E-02	565259.4	4191652.8	88.3	3.05	810.96	70.10	0.08	YES	
ENG_125	0	0.41058E-02	564811.2	4191460.8	67.7	3.05	810.96	70.10	0.08	YES	
ENG_126	0	0.33143E-02	565137.9	4191441.5	77.6	0.00	810.96	70.10	0.08	YES	
ENG_128	0	0.41429E-02	565469.2	4191955.2	109.8	3.05	810.96	70.10	0.05	YES	
ENG_129	0	0.41429E-02	565383.1	4191740.2	97.0	2.44	810.96	70.10	0.05	YES	
ENG_130	0	0.25692E-02	565533.3	4191713.5	98.9	2.44	815.40	134.54	0.08	YES	
ENG_131	0	0.72350E-03	564970.3	4191484.2	71.3	1.83	817.07	58.47	0.08	YES	
ENG_132	0	0.72350E-03	564800.3	4191781.8	74.3	1.83	817.07	58.47	0.08	YES	

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   E134_133     0   0.18674E-01  565380.0 4191939.2   104.3     3.05    769.29   135.05      0.13      YES
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            NUMBER EMISSION RATE                    BASE    RELEASE   INIT.    INIT.   EMISSION RATE
   SOURCE   PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT    SY       SZ      SCALAR VARY
     ID     CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)     BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   MHSTK5      0   0.24000E-03  564821.2 4191842.8   74.8     6.95     0.07     2.42
   STHSTK10    0   0.10700E-03  565522.6 4191880.8  112.8    14.02     0.29     5.39
   PAINT1      0   0.26600E-03  564917.1 4191432.5   72.0     4.57     3.54     4.25
   PAINT2      0   0.26600E-03  565322.7 4191834.8   96.0     4.57     3.54     4.25
   PAINT3      0   0.26600E-03  565541.5 4191525.8   97.0     4.57     3.54     4.25
   PAINT4      0   0.26600E-03  564865.7 4191751.0   77.0     4.57     3.54     4.25
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*** SOURCE IDs DEFINING SOURCE GROUPS ***

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  GROUP ID                                        SOURCE IDs


  ALL      WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
           KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
           LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
           LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
           TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
           STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
           GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
           WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
           PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
           ENG_113 , ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 ,
ENG_126 ,
           ENG_128 , ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

  GEN      ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
ENG_113 ,
           ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
           ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

  LABS     WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
           KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
           LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
           LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
           TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
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           STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,

                                    *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID                                         SOURCE IDs

           GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

           WELSTK1 ,

   COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

   OTHER     PRINTA  , PRINTB  , PRINTC  , POURING , PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

   BOILERS   BOILER#2, BOILER#3, BOILER#4,

   COGEN     COGEN   ,


                              *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                           ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                              NETWORK
  GROUP ID                     AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  ALL     1ST HIGHEST VALUE IS      2.99073 AT ( 566200.00, 4191300.00,    158.00,     0.00) DC    NA
          2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
         10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)

  GEN     1ST HIGHEST VALUE IS      1.63559 AT ( 566200.00, 4191300.00,    158.00,     0.00) DC    NA
          2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
         10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)

  LABS    1ST HIGHEST VALUE IS      0.24087 AT ( 566200.00, 4191300.00,    158.00,     0.00) DC    NA
          2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
          9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)
         10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,      0.00,     0.00)


                              *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                           ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                              NETWORK
  GROUP ID                     AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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COMBUST  1ST HIGHEST VALUE IS       1.10726 AT (  566200.00,  4191300.00,     158.00,     0.00)  DC     NA
         2ND HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         3RD HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         4TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         5TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         6TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         7TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         8TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
        10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)


OTHER    1ST HIGHEST VALUE IS       0.00713 AT (  566200.00,  4191300.00,     158.00,     0.00)  DC     NA
         2ND HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         3RD HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         4TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         5TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         6TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         7TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         8TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
        10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)


BOILERS  1ST HIGHEST VALUE IS       0.14896 AT (  566200.00,  4191300.00,     158.00,     0.00)  DC     NA
         2ND HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         3RD HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         4TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         5TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         6TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         7TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         8TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
        10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)



                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                   NETWORK
GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


COGEN    1ST HIGHEST VALUE IS       0.95830 AT (  566200.00,  4191300.00,     158.00,     0.00)  DC     NA
         2ND HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         3RD HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         4TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         5TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         6TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         7TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         8TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
         9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
        10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,       0.00,     0.00)
```

```
*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh - Chronic                            ***
*** Model Executed on 02/04/04 at 18:24:21 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Chron.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Chron.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc

       Number of sources -      126
Number of source groups -       27
     Number of receptors -     1431


                              *** POINT SOURCE DATA ***


                NUMBER EMISSION RATE                     BASE   STACK  STACK    STACK     STACK    BUILDING EMISSION RATE
       SOURCE   PART.  (GRAMS/SEC)    X         Y        ELEV.  HEIGHT TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
        ID      CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    WHSTK1_8     0   0.21000E-05  564704.4 4191782.8    66.8   31.70  293.15     7.12     0.19      YES
    NWAF9        0   0.75100E-04  564718.8 4191791.2    66.8   29.57  293.15    16.48     0.74      YES
    WHSTK10      0   0.21000E-05  564724.4 4191826.0    66.8    8.60  293.15     7.12     0.34      YES
    MHSTK1       0   0.37600E-05  564794.4 4191795.8    74.8    7.61  293.15    17.25     0.34      YES
    MHSTK2       0   0.37600E-05  564798.6 4191843.0    74.8   10.89  293.15    17.25     0.29      YES
    MHSTK3       0   0.37600E-05  564794.1 4191843.0    74.8   10.89  293.15    17.25     0.48      YES
    MHSTK4       0   0.37600E-05  564800.9 4191787.2    74.8   15.61  293.15    17.25     0.33      YES
    MHSTK6       0   0.37600E-05  564801.3 4191808.2    74.8   10.94  293.15    17.25     0.34      YES
    KHSTK1       0   0.11500E-03  564761.1 4191879.8    72.7   18.45  293.15     1.28     2.76      YES
    KHSTK2       0   0.11500E-03  564759.4 4191891.8    72.7   18.45  293.15     1.28     2.76      YES
    KHSTK3       0   0.11500E-03  564732.4 4191877.5    72.7   18.45  293.15     1.28     2.76      YES
    KHSTK4       0   0.11500E-03  564731.4 4191889.0    72.7   18.45  293.15     1.28     2.76      YES
    BHSTK1       0   0.11600E-04  564678.9 4191889.0    67.4   27.85  293.15     2.78     1.26      YES
    BHSTK2       0   0.11600E-04  564675.0 4191896.8    67.4   29.68  293.15     2.78     1.26      YES
    BHSTK3       0   0.11600E-04  564704.5 4191898.0    67.4   29.68  293.15     2.78     1.26      YES
    BHSTK4       0   0.11600E-04  564707.4 4191887.8    67.4   33.34  293.15     2.78     0.37      YES
    BHSTK5       0   0.11600E-04  564691.6 4191888.0    67.4   33.34  293.15     2.78     0.37      YES
    VLSBSTK1     0   0.12100E-03  564933.6 4191633.2    64.4   27.04  293.15     3.97     1.22      YES
    VLSBSTK2     0   0.12100E-03  564954.0 4191566.5    64.4   27.04  293.15     3.97     1.22      YES
    VLSBSTK3     0   0.12100E-03  565051.3 4191594.8    64.4   27.04  293.15     3.97     1.22      YES
    VLSBSTK4     0   0.12100E-03  565030.6 4191662.2    64.4   27.04  293.15     3.97     1.22      YES
    LSASTK1      0   0.70000E-04  564892.2 4191637.2    64.4   28.31  293.15     5.18     1.22      YES
    LSASTK2      0   0.70000E-04  564875.9 4191632.8    64.4   28.31  293.15     5.18     1.22      YES
    LSASTK3      0   0.70000E-04  564907.6 4191580.5    64.4   28.31  293.15     5.18     1.22      YES
    LSASTK4      0   0.70000E-04  564897.1 4191578.0    64.4   28.31  293.15     5.18     1.22      YES
    LSASTK5      0   0.70000E-04  564908.6 4191576.2    64.4   28.31  293.15     5.18     1.22      YES
    LSASTK6      0   0.70000E-04  564899.1 4191573.5    64.4   28.31  293.15     5.18     1.22      YES
    LSASTK7      0   0.70000E-04  564900.8 4191572.2    64.4   28.31  293.15     5.18     0.30      YES
    LEWHSTK1     0   0.21600E-05  565605.8 4191772.0   106.7   12.80  293.15     3.11     0.36      YES
    LEWHSTK2     0   0.21600E-05  565591.5 4191786.0   106.7   12.80  293.15     3.11     0.36      YES
    LEWHSTK3     0   0.21600E-05  565585.9 4191792.2   106.7   12.80  293.15     3.11     0.36      YES
    LEWHSTK4     0   0.21600E-05  565583.1 4191800.0   106.7   12.80  293.15     3.11     0.36      YES
    LEWHSTK5     0   0.21600E-05  565598.1 4191787.8   106.7   12.80  293.15     3.11     0.36      YES
    LEWHSTK6     0   0.21600E-05  565619.4 4191775.8   106.7   12.80  293.15     3.11     0.36      YES
    LEWHSTK7     0   0.21600E-05  565608.8 4191787.2   106.7   12.80  293.15     3.11     0.36      YES
    LEWHSTK8     0   0.21600E-05  565597.6 4191800.5   106.7   12.80  293.15     3.11     0.30      YES
    LEWHSTK9     0   0.21600E-05  565593.3 4191808.2   106.7   12.80  293.15     3.11     0.36      YES
    LATHSTK1     0   0.92400E-05  565555.1 4191799.2   104.6   42.37  293.15     6.28     0.34      YES
    LATHSTK2     0   0.92400E-05  565561.1 4191812.0   104.6   36.88  293.15     6.28     0.70      YES
    LATHSTK3     0   0.92400E-05  565531.6 4191800.2   104.6   36.88  293.15     6.28     0.48      YES


                              *** POINT SOURCE DATA ***


                NUMBER EMISSION RATE                     BASE   STACK  STACK    STACK     STACK    BUILDING EMISSION RATE
       SOURCE   PART.  (GRAMS/SEC)    X         Y        ELEV.  HEIGHT TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
        ID      CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    LATHSTK4     0   0.92400E-05  565515.1 4191799.5   104.6   37.19  293.15     6.28     0.96      YES
    LATHSTK5     0   0.92400E-05  565539.7 4191794.2   104.6   42.37  293.15     6.28     0.70      YES
    LATHSTK6     0   0.92400E-05  565527.3 4191776.0   104.6   38.40  293.15     6.28     0.74      YES
    LATHSTK7     0   0.92400E-05  565544.9 4191781.5   104.6   38.40  293.15     6.28     0.31      YES
    LATHSTK8     0   0.92400E-05  565562.3 4191787.0   104.6   38.40  293.15     6.28     0.70      YES
    TANHSTKA     0   0.79700E-05  565492.1 4191793.2   100.6   39.32  293.15     2.94     1.69      YES
    TANHSTKB     0   0.79700E-05  565496.8 4191794.0   100.6   39.32  293.15     2.94     1.69      YES
    TANHSTKC     0   0.79700E-05  565494.1 4191787.2   100.6   39.32  293.15     2.94     1.69      YES
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TANHSTKD      0   0.79700E-05  565499.1 4191788.2  100.6   39.32   293.15    2.94     1.69      YES
HHSTKA        0   0.19400E-04  565540.8 4191749.5  103.6   20.12   293.15    4.15     1.52      YES
HHSTKB        0   0.19400E-04  565565.6 4191756.8  103.6   20.12   293.15    4.15     1.52      YES
HHSTKC        0   0.19400E-04  565576.8 4191717.8  103.6   20.12   293.15    4.15     1.52      YES
HHSTKD        0   0.19400E-04  565553.2 4191710.5  103.6   20.12   293.15    4.15     1.52      YES
HHSTKE        0   0.19400E-04  565543.4 4191746.5  103.6   20.12   293.15    4.15     0.81      YES
STHSTK1       0   0.54300E-05  565530.3 4191891.8  112.8   13.87   293.15    2.17     0.27      YES
STHSTK2       0   0.54300E-05  565522.0 4191918.2  112.8   13.87   293.15    2.17     0.34      YES
STHSTK3       0   0.54300E-05  565537.9 4191871.8  112.8   17.56   293.15    2.17     0.34      YES
STHSTK4       0   0.54300E-05  565529.5 4191871.8  112.8   13.87   293.15    2.17     0.34      YES
STHSTK5       0   0.54300E-05  565530.9 4191870.0  112.8   14.02   293.15    2.17     0.34      YES
STHSTK6       0   0.54300E-05  565530.1 4191869.5  112.8   14.02   293.15    2.17     0.27      YES
STHSTK7       0   0.54300E-05  565532.6 4191866.5  112.8   14.02   293.15    2.17     0.39      YES
STHSTK8       0   0.54300E-05  565538.2 4191864.0  112.8   14.02   293.15    2.17     0.27      YES
STHSTK9       0   0.54300E-05  565525.9 4191880.5  112.8   14.02   293.15    2.17     0.53      YES
STHSTK11      0   0.54300E-05  565519.0 4191907.5  112.8   13.87   293.15    2.17     0.34      YES
GHSTK1        0   0.12100E-05  565507.1 4191756.0  103.6   16.06   293.15    5.92     0.30      YES
GHSTK2        0   0.12100E-05  565510.6 4191744.8  103.6   16.06   293.15    5.92     0.25      YES
GHSTK3        0   0.12100E-05  565512.4 4191739.0  103.6   16.37   293.15    5.92     0.30      YES
GHSTK4        0   0.12100E-05  565514.7 4191737.8  103.6   15.91   293.15    5.92     0.31      YES
GHSTK5        0   0.12100E-05  565514.9 4191732.2  103.6   16.06   293.15    5.92     0.30      YES
GHSTK6        0   0.12100E-05  565500.2 4191755.2  103.6   16.12   293.15    5.92     0.30      YES
GHSTK7        0   0.12100E-05  565501.1 4191753.0  103.6   16.37   293.15    5.92     0.84      YES
GHSTK8        0   0.12100E-05  565503.7 4191744.2  103.6   16.00   293.15    5.92     0.30      YES
GHSTK9        0   0.12100E-05  565505.2 4191740.2  103.6   16.37   293.15    5.92     0.26      YES
GHSTK10       0   0.12100E-05  565506.9 4191735.2  103.6   16.06   293.15    5.92     0.30      YES
GHSTK11       0   0.12100E-05  565509.7 4191728.2  103.6   16.22   293.15    5.92     0.30      YES
GHSTK12       0   0.12100E-05  565509.0 4191725.5  103.6   16.06   293.15    5.92     0.30      YES
GHSTK13       0   0.12100E-05  565516.9 4191725.8  103.6   15.91   293.15    5.92     0.40      YES
CHSTK1        0   0.30600E-04  565393.9 4192008.8  110.3   26.85   293.15    2.00     1.00      YES
DHSTK1        0   0.56800E-05  565329.4 4191982.0  107.2   16.36   293.15    2.00     1.00      YES
HESSTK1       0   0.98800E-04  565234.6 4191926.2   98.2   15.39   293.15    2.00     1.00      YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
HILSTK1	0	0.28000E-02	564874.6	4191815.0	80.4	14.96	293.15	2.00	1.00	YES	
MULSTK1	0	0.12000E-06	564779.7	4191737.8	74.4	17.24	293.15	2.00	1.00	YES	
WELSTK1	0	0.39400E-05	564933.7	4191795.2	81.7	5.89	293.15	2.00	1.00	YES	
PRINTA	0	0.10200E-04	564584.7	4191553.2	60.0	8.91	293.15	2.70	0.84	YES	
PRINTB	0	0.10200E-04	564614.4	4191520.8	60.0	8.91	293.15	2.70	0.84	YES	
PRINTC	0	0.10200E-04	564643.1	4191525.5	60.0	8.91	293.15	2.70	0.60	YES	
COGEN	0	0.17900E-01	564876.0	4191492.0	71.9	12.77	430.37	10.45	2.28	YES	
BOILER#2	0	0.11700E-03	564863.6	4191499.5	71.9	8.80	522.82	7.97	1.52	YES	
BOILER#3	0	0.44700E-03	564881.9	4191505.8	71.9	8.80	554.11	10.53	1.52	YES	
BOILER#4	0	0.54000E-03	564885.8	4191495.8	71.9	8.80	566.65	12.63	1.52	YES	
POURING	0	0.91700E-06	564847.8	4191467.0	70.1	14.94	293.15	4.62	0.56	YES	
ENG_62	0	0.31494E-05	565567.6	4191086.5	85.1	4.57	800.37	146.01	0.13	NO	
ENG_63	0	0.15700E-05	564668.2	4191897.5	70.2	4.57	799.85	152.00	0.13	YES	
ENG_64	0	0.48200E-06	565452.9	4191687.0	98.2	3.05	817.07	58.47	0.08	YES	
ENG_105	0	0.49470E-04	564939.1	4191457.8	71.1	4.57	810.96	70.10	0.23	YES	
ENG_106	0	0.41470E-04	564991.6	4191614.5	73.6	30.48	810.96	70.10	0.20	YES	
ENG_107	0	0.33184E-04	564767.4	4191906.8	76.2	0.00	810.96	70.10	0.18	YES	
ENG_108	0	0.33184E-04	564930.6	4191564.2	68.8	7.62	810.96	70.10	0.18	YES	
ENG_109	0	0.11064E-04	565615.8	4191801.2	111.7	3.05	810.96	70.10	0.15	YES	
ENG_110	0	0.55239E-05	564655.9	4191874.5	68.4	4.57	810.96	70.10	0.10	YES	
ENG_111	0	0.15870E-04	565091.1	4191757.8	78.9	3.05	810.96	70.10	0.11	YES	
ENG_112	0	0.13810E-04	565542.8	4191208.2	85.7	3.05	810.93	70.10	0.10	NO	
ENG_113	0	0.13810E-04	565673.6	4191194.8	92.0	3.05	810.93	70.10	0.10	NO	
ENG_114	0	0.13810E-04	565601.4	4191014.1	86.0	3.05	810.93	70.10	0.10	NO	
ENG_115	0	0.13810E-04	565702.9	4190991.8	91.4	3.05	810.93	70.10	0.10	NO	
ENG_116	0	0.13810E-04	564775.8	4191177.5	63.2	4.57	810.93	70.10	0.10	NO	
ENG_117	0	0.13810E-04	565575.9	4191609.0	99.3	3.05	810.96	70.10	0.10	YES	
ENG_118	0	0.65956E-05	564654.8	4191890.5	68.6	4.57	810.96	70.10	0.13	YES	
ENG_119	0	0.96873E-05	564728.8	4191771.0	70.5	4.57	810.96	70.10	0.08	YES	
ENG_120	0	0.69666E-05	565318.0	4191422.5	86.1	3.05	810.96	70.10	0.08	YES	
ENG_121	0	0.69254E-05	565926.2	4191443.0	118.9	3.05	810.93	70.10	0.08	NO	
ENG_123	0	0.85331E-05	565259.4	4191652.8	88.3	3.05	810.96	70.10	0.08	YES	
ENG_125	0	0.27372E-05	564811.2	4191460.8	67.7	3.05	810.96	70.10	0.08	YES	
ENG_126	0	0.22095E-05	565137.9	4191441.5	77.6	0.00	810.96	70.10	0.08	YES	
ENG_128	0	0.27619E-05	565469.2	4191955.2	109.8	3.05	810.96	70.10	0.05	YES	
ENG_129	0	0.27619E-05	565383.1	4191740.2	97.0	2.44	810.96	70.10	0.05	YES	
ENG_130	0	0.17128E-05	565533.3	4191713.5	98.9	2.44	815.40	134.54	0.08	YES	
ENG_131	0	0.48231E-06	564970.3	4191484.2	71.3	1.83	817.07	58.47	0.08	YES	
ENG_132	0	0.48231E-06	564800.3	4191781.8	74.3	1.83	817.07	58.47	0.08	YES	

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      E134_133     0  0.12449E-04 565380.0 4191939.2  104.3    3.05  769.29  135.05    0.13      YES


                              *** VOLUME SOURCE DATA ***

                  NUMBER EMISSION RATE                BASE    RELEASE  INIT.   INIT.   EMISSION RATE
          SOURCE   PART.  (GRAMS/SEC)    X        Y    ELEV.   HEIGHT    SY      SZ     SCALAR VARY
            ID     CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)     BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


          MHSTK5     0  0.37600E-05  564821.2 4191842.8   74.8    6.95    0.07    2.42
          STHSTK10   0  0.54300E-05  565522.6 4191880.8  112.8   14.02    0.29    5.39
          PAINT1     0  0.88200E-06  564917.1 4191432.5   72.0    4.57    3.54    4.25
          PAINT2     0  0.88200E-06  565322.7 4191834.8   96.0    4.57    3.54    4.25
          PAINT3     0  0.88200E-06  565541.5 4191525.8   97.0    4.57    3.54    4.25
          PAINT4     0  0.88200E-06  564865.7 4191751.0   77.0    4.57    3.54    4.25


                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

       GROUP ID                                          SOURCE IDs


      ALL      WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
   ,

               KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
   LSASTK2 ,

               LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
   LEWHSTK7,

               LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
   TANHSTKB,

               TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
   STHSTK5 ,

               STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
   ,

               GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
   MULSTK1 ,

               WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
   ,

               PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
   ENG_112 ,

               ENG_113 , ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 ,
   ENG_126 ,

               ENG_128 , ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

       WH       WHSTK1_8, WHSTK10 ,

       NWAF     NWAF9   ,

       MH       MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

       KH       KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

       BH       BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

       VLSB     VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

       LSA      LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

       LEW      LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,
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   LAT        LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
   GROUP ID                                         SOURCE IDs


   TAN        TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

   HH         HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

   STH        STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 , STHSTK5 , STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10,

   GH         GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
          GHSTK12 ,

              GHSTK13 ,

   CH         CHSTK1  ,

   DH         DHSTK1  ,

   HES        HESSTK1 ,

   HIL        HILSTK1 ,

   MUL        MULSTK1 ,

   WEL        WELSTK1 ,

   NOENGINE WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

              KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
          LSASTK2 ,

              LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
          LEWHSTK7,

              LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
          TANHSTKB,

              TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
          STHSTK5 ,

              STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,

              GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
          MULSTK1 ,

              WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,

              PAINT4  ,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
   GROUP ID                                         SOURCE IDs


   ENGINE     ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
          ENG_113 ,

              ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
          ENG_128 ,
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          ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

  PRINT     PRINTA , PRINTB , PRINTC ,

  COMBUST   COGEN  , BOILER#2, BOILER#3, BOILER#4,

  HAZMAT    POURING ,

  PAINT     PAINT1 , PAINT2 , PAINT3 , PAINT4 ,

  ALL_LABS WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
          STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
          GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
          WELSTK1 ,


                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                          ** CONC OF CHRONIC  IN MICROGRAMS/M**3                    **

                                                                                                           NETWORK
GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL     1ST HIGHEST VALUE IS     0.07482 AT (  564842.69, 4191950.00,    83.00,    0.00) DC      NA
        2ND HIGHEST VALUE IS     0.07397 AT (  564795.00, 4191930.25,    78.00,    0.00) DC      NA
        3RD HIGHEST VALUE IS     0.06568 AT (  564941.88, 4191967.00,    90.00,    0.00) DC      NA
        4TH HIGHEST VALUE IS     0.06550 AT (  564892.25, 4191959.00,    84.00,    0.00) DC      NA
        5TH HIGHEST VALUE IS     0.06468 AT (  564748.50, 4191916.75,    75.00,    0.00) DC      NA
        6TH HIGHEST VALUE IS     0.05624 AT (  564800.00, 4192000.00,    81.00,    0.00) DC      NA
        7TH HIGHEST VALUE IS     0.05433 AT (  564991.81, 4191975.00,    93.00,    0.00) DC      NA
        8TH HIGHEST VALUE IS     0.05359 AT (  564700.00, 4192000.00,    76.00,    0.00) DC      NA
        9TH HIGHEST VALUE IS     0.05225 AT (  565000.00, 4192000.00,    98.00,    0.00) DC      NA
       10TH HIGHEST VALUE IS     0.05111 AT (  564900.00, 4192000.00,    88.00,    0.00) DC      NA

WH      1ST HIGHEST VALUE IS     0.00013 AT (  564698.50, 4191908.75,    72.00,    0.00) DC      NA
        2ND HIGHEST VALUE IS     0.00012 AT (  564639.88, 4191852.00,    67.00,    0.00) DC      NA
        3RD HIGHEST VALUE IS     0.00012 AT (  564664.50, 4191903.50,    71.00,    0.00) DC      NA
        4TH HIGHEST VALUE IS     0.00012 AT (  564600.00, 4191900.00,    67.00,    0.00) DC      NA
        5TH HIGHEST VALUE IS     0.00011 AT (  564648.62, 4191891.75,    68.00,    0.00) DC      NA
        6TH HIGHEST VALUE IS     0.00009 AT (  564748.50, 4191916.75,    75.00,    0.00) DC      NA
        7TH HIGHEST VALUE IS     0.00006 AT (  564795.00, 4191930.25,    78.00,    0.00) DC      NA
        8TH HIGHEST VALUE IS     0.00005 AT (  564700.00, 4192000.00,    76.00,    0.00) DC      NA
        9TH HIGHEST VALUE IS     0.00005 AT (  564600.00, 4192000.00,    72.00,    0.00) DC      NA
       10TH HIGHEST VALUE IS     0.00004 AT (  564500.00, 4191900.00,    65.00,    0.00) DC      NA

NWAF    1ST HIGHEST VALUE IS     0.00031 AT (  565000.00, 4192000.00,    98.00,    0.00) DC      NA
        2ND HIGHEST VALUE IS     0.00031 AT (  565141.94, 4191999.00,    97.00,    0.00) DC      NA
        3RD HIGHEST VALUE IS     0.00029 AT (  565241.19, 4192017.75,   102.00,    0.00) DC      NA
        4TH HIGHEST VALUE IS     0.00029 AT (  565191.50, 4192009.50,    97.00,    0.00) DC      NA
        5TH HIGHEST VALUE IS     0.00028 AT (  565289.25, 4192025.50,   107.00,    0.00) DC      NA
        6TH HIGHEST VALUE IS     0.00026 AT (  565090.81, 4191991.50,    96.00,    0.00) DC      NA
        7TH HIGHEST VALUE IS     0.00026 AT (  565339.88, 4192034.25,   108.00,    0.00) DC      NA
        8TH HIGHEST VALUE IS     0.00025 AT (  564900.00, 4192100.00,   102.00,    0.00) DC      NA
        9TH HIGHEST VALUE IS     0.00025 AT (  565100.00, 4192000.00,    96.00,    0.00) DC      NA
       10TH HIGHEST VALUE IS     0.00024 AT (  565100.00, 4192100.00,   107.00,    0.00) DC      NA
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                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CHRONIC   IN MICROGRAMS/M**3                      **

                                                                                       NETWORK
GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MH     1ST HIGHEST VALUE IS      0.00109 AT (  564748.50, 4191916.75,      75.00,      0.00)  DC      NA
       2ND HIGHEST VALUE IS      0.00090 AT (  564795.00, 4191930.25,      78.00,      0.00)  DC      NA
       3RD HIGHEST VALUE IS      0.00076 AT (  564698.50, 4191908.75,      72.00,      0.00)  DC      NA
       4TH HIGHEST VALUE IS      0.00075 AT (  564842.69, 4191950.00,      83.00,      0.00)  DC      NA
       5TH HIGHEST VALUE IS      0.00056 AT (  564700.00, 4192000.00,      76.00,      0.00)  DC      NA
       6TH HIGHEST VALUE IS      0.00054 AT (  564664.50, 4191903.50,      71.00,      0.00)  DC      NA
       7TH HIGHEST VALUE IS      0.00045 AT (  564892.25, 4191959.00,      84.00,      0.00)  DC      NA
       8TH HIGHEST VALUE IS      0.00045 AT (  564800.00, 4192000.00,      81.00,      0.00)  DC      NA
       9TH HIGHEST VALUE IS      0.00039 AT (  564600.00, 4192000.00,      72.00,      0.00)  DC      NA
      10TH HIGHEST VALUE IS      0.00038 AT (  564941.88, 4191967.00,      90.00,      0.00)  DC      NA

KH     1ST HIGHEST VALUE IS      0.00925 AT (  564842.69, 4191950.00,      83.00,      0.00)  DC      NA
       2ND HIGHEST VALUE IS      0.00900 AT (  564700.00, 4192000.00,      76.00,      0.00)  DC      NA
       3RD HIGHEST VALUE IS      0.00790 AT (  564800.00, 4192000.00,      81.00,      0.00)  DC      NA
       4TH HIGHEST VALUE IS      0.00747 AT (  564892.25, 4191959.00,      84.00,      0.00)  DC      NA
       5TH HIGHEST VALUE IS      0.00708 AT (  564600.00, 4192000.00,      72.00,      0.00)  DC      NA
       6TH HIGHEST VALUE IS      0.00637 AT (  564991.81, 4191975.00,      93.00,      0.00)  DC      NA
       7TH HIGHEST VALUE IS      0.00613 AT (  564941.88, 4191967.00,      90.00,      0.00)  DC      NA
       8TH HIGHEST VALUE IS      0.00541 AT (  565000.00, 4192000.00,      98.00,      0.00)  DC      NA
       9TH HIGHEST VALUE IS      0.00511 AT (  565042.31, 4191983.00,      93.00,      0.00)  DC      NA
      10TH HIGHEST VALUE IS      0.00504 AT (  564800.00, 4192100.00,      92.00,      0.00)  DC      NA

BH     1ST HIGHEST VALUE IS      0.00120 AT (  564795.00, 4191930.25,      78.00,      0.00)  DC      NA
       2ND HIGHEST VALUE IS      0.00094 AT (  564842.69, 4191950.00,      83.00,      0.00)  DC      NA
       3RD HIGHEST VALUE IS      0.00076 AT (  564600.00, 4192000.00,      72.00,      0.00)  DC      NA
       4TH HIGHEST VALUE IS      0.00072 AT (  564892.25, 4191959.00,      84.00,      0.00)  DC      NA
       5TH HIGHEST VALUE IS      0.00059 AT (  564700.00, 4192000.00,      76.00,      0.00)  DC      NA
       6TH HIGHEST VALUE IS      0.00059 AT (  564941.88, 4191967.00,      90.00,      0.00)  DC      NA
       7TH HIGHEST VALUE IS      0.00055 AT (  564800.00, 4192000.00,      81.00,      0.00)  DC      NA
       8TH HIGHEST VALUE IS      0.00053 AT (  564900.00, 4192000.00,      88.00,      0.00)  DC      NA
       9TH HIGHEST VALUE IS      0.00048 AT (  565000.00, 4192000.00,      98.00,      0.00)  DC      NA
      10TH HIGHEST VALUE IS      0.00046 AT (  564991.81, 4191975.00,      93.00,      0.00)  DC      NA



                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CHRONIC   IN MICROGRAMS/M**3                      **

                                                                                       NETWORK
GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


VLSB   1ST HIGHEST VALUE IS      0.00356 AT (  565226.19, 4191310.50,      81.00,      0.00)  DC      NA
       2ND HIGHEST VALUE IS      0.00352 AT (  564795.00, 4191930.25,      78.00,      0.00)  DC      NA
       3RD HIGHEST VALUE IS      0.00347 AT (  565200.00, 4191300.00,      80.00,      0.00)  DC      NA
       4TH HIGHEST VALUE IS      0.00345 AT (  565176.31, 4191303.25,      79.00,      0.00)  DC      NA
       5TH HIGHEST VALUE IS      0.00343 AT (  565577.06, 4191362.50,      93.00,      0.00)  DC      NA
       6TH HIGHEST VALUE IS      0.00338 AT (  564842.69, 4191950.00,      83.00,      0.00)  DC      NA
       7TH HIGHEST VALUE IS      0.00337 AT (  565276.06, 4191318.25,      82.00,      0.00)  DC      NA
       8TH HIGHEST VALUE IS      0.00324 AT (  565326.25, 4191324.25,      84.00,      0.00)  DC      NA
       9TH HIGHEST VALUE IS      0.00324 AT (  565626.50, 4191370.25,      95.00,      0.00)  DC      NA
      10TH HIGHEST VALUE IS      0.00320 AT (  564748.50, 4191916.75,      75.00,      0.00)  DC      NA

LSA    1ST HIGHEST VALUE IS      0.00297 AT (  565176.31, 4191303.25,      79.00,      0.00)  DC      NA
       2ND HIGHEST VALUE IS      0.00296 AT (  565577.06, 4191362.50,      93.00,      0.00)  DC      NA
       3RD HIGHEST VALUE IS      0.00294 AT (  565376.81, 4191332.25,      87.00,      0.00)  DC      NA
       4TH HIGHEST VALUE IS      0.00294 AT (  565127.75, 4191295.25,      77.00,      0.00)  DC      NA
       5TH HIGHEST VALUE IS      0.00293 AT (  565077.25, 4191285.50,      76.00,      0.00)  DC      NA
       6TH HIGHEST VALUE IS      0.00288 AT (  565200.00, 4191300.00,      80.00,      0.00)  DC      NA
       7TH HIGHEST VALUE IS      0.00284 AT (  565226.19, 4191310.50,      81.00,      0.00)  DC      NA
       8TH HIGHEST VALUE IS      0.00280 AT (  565326.25, 4191324.25,      84.00,      0.00)  DC      NA
       9TH HIGHEST VALUE IS      0.00278 AT (  565426.81, 4191338.75,      88.00,      0.00)  DC      NA
      10TH HIGHEST VALUE IS      0.00277 AT (  565626.50, 4191370.25,      95.00,      0.00)  DC      NA

LEW    1ST HIGHEST VALUE IS      0.00031 AT (  565475.12, 4192018.00,     118.00,      0.00)  DC      NA
       2ND HIGHEST VALUE IS      0.00027 AT (  565460.56, 4192039.50,     117.00,      0.00)  DC      NA
       3RD HIGHEST VALUE IS      0.00024 AT (  565438.25, 4192048.75,     117.00,      0.00)  DC      NA
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              4TH HIGHEST VALUE IS        0.00022 AT (  565500.00,  4192100.00,     126.00,      0.00)  DC      NA
              5TH HIGHEST VALUE IS        0.00019 AT (  566100.00,  4191600.00,     141.00,      0.00)  DC      NA
              6TH HIGHEST VALUE IS        0.00018 AT (  565400.00,  4192100.00,     116.00,      0.00)  DC      NA
              7TH HIGHEST VALUE IS        0.00018 AT (  565300.00,  4192300.00,     123.00,      0.00)  DC      NA
              8TH HIGHEST VALUE IS        0.00016 AT (  565390.25,  4192042.25,     113.00,      0.00)  DC      NA
              9TH HIGHEST VALUE IS        0.00015 AT (  565600.00,  4192100.00,     140.00,      0.00)  DC      NA
             10TH HIGHEST VALUE IS        0.00015 AT (  566200.00,  4191600.00,     144.00,      0.00)  DC      NA


                            *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                        ** CONC OF CHRONIC  IN MICROGRAMS/M**3                          **

                                                                                                NETWORK
GROUP ID                            AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


LAT     1ST HIGHEST VALUE IS        0.00037 AT (  565475.12,  4192018.00,     118.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS        0.00036 AT (  566200.00,  4191600.00,     144.00,      0.00)  DC      NA
        3RD HIGHEST VALUE IS        0.00033 AT (  565460.56,  4192039.50,     117.00,      0.00)  DC      NA
        4TH HIGHEST VALUE IS        0.00033 AT (  565438.25,  4192048.75,     117.00,      0.00)  DC      NA
        5TH HIGHEST VALUE IS        0.00032 AT (  565390.25,  4192042.25,     113.00,      0.00)  DC      NA
        6TH HIGHEST VALUE IS        0.00032 AT (  565600.00,  4192100.00,     140.00,      0.00)  DC      NA
        7TH HIGHEST VALUE IS        0.00032 AT (  566100.00,  4191600.00,     141.00,      0.00)  DC      NA
        8TH HIGHEST VALUE IS        0.00031 AT (  565339.88,  4192034.25,     108.00,      0.00)  DC      NA
        9TH HIGHEST VALUE IS        0.00030 AT (  566200.00,  4191500.00,     156.00,      0.00)  DC      NA
       10TH HIGHEST VALUE IS        0.00030 AT (  565800.00,  4192000.00,     178.00,      0.00)  DC      NA

TAN     1ST HIGHEST VALUE IS        0.00018 AT (  566100.00,  4191600.00,     141.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS        0.00016 AT (  565475.12,  4192018.00,     118.00,      0.00)  DC      NA
        3RD HIGHEST VALUE IS        0.00015 AT (  565289.25,  4192025.50,     107.00,      0.00)  DC      NA
        4TH HIGHEST VALUE IS        0.00015 AT (  566200.00,  4191600.00,     144.00,      0.00)  DC      NA
        5TH HIGHEST VALUE IS        0.00014 AT (  565390.25,  4192042.25,     113.00,      0.00)  DC      NA
        6TH HIGHEST VALUE IS        0.00014 AT (  565438.25,  4192048.75,     117.00,      0.00)  DC      NA
        7TH HIGHEST VALUE IS        0.00013 AT (  565460.56,  4192039.50,     117.00,      0.00)  DC      NA
        8TH HIGHEST VALUE IS        0.00013 AT (  565600.00,  4192100.00,     140.00,      0.00)  DC      NA
        9TH HIGHEST VALUE IS        0.00013 AT (  565339.88,  4192034.25,     108.00,      0.00)  DC      NA
       10TH HIGHEST VALUE IS        0.00013 AT (  565500.00,  4192100.00,     126.00,      0.00)  DC      NA

HH      1ST HIGHEST VALUE IS        0.00080 AT (  566100.00,  4191600.00,     141.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS        0.00060 AT (  566200.00,  4191600.00,     144.00,      0.00)  DC      NA
        3RD HIGHEST VALUE IS        0.00055 AT (  566200.00,  4191500.00,     156.00,      0.00)  DC      NA
        4TH HIGHEST VALUE IS        0.00053 AT (  565475.12,  4192018.00,     118.00,      0.00)  DC      NA
        5TH HIGHEST VALUE IS        0.00053 AT (  565289.25,  4192025.50,     107.00,      0.00)  DC      NA
        6TH HIGHEST VALUE IS        0.00053 AT (  565600.00,  4192100.00,     140.00,      0.00)  DC      NA
        7TH HIGHEST VALUE IS        0.00052 AT (  565339.88,  4192034.25,     108.00,      0.00)  DC      NA
        8TH HIGHEST VALUE IS        0.00051 AT (  566100.00,  4191400.00,     149.00,      0.00)  DC      NA
        9TH HIGHEST VALUE IS        0.00050 AT (  565390.25,  4192042.25,     113.00,      0.00)  DC      NA
       10TH HIGHEST VALUE IS        0.00048 AT (  565460.56,  4192039.50,     117.00,      0.00)  DC      NA


                            *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                        ** CONC OF CHRONIC  IN MICROGRAMS/M**3                          **

                                                                                                NETWORK
GROUP ID                            AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


STH     1ST HIGHEST VALUE IS        0.00111 AT (  565475.12,  4192018.00,     118.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS        0.00101 AT (  565390.25,  4192042.25,     113.00,      0.00)  DC      NA
        3RD HIGHEST VALUE IS        0.00091 AT (  565460.56,  4192039.50,     117.00,      0.00)  DC      NA
        4TH HIGHEST VALUE IS        0.00090 AT (  565438.25,  4192048.75,     117.00,      0.00)  DC      NA
        5TH HIGHEST VALUE IS        0.00082 AT (  565339.88,  4192034.25,     108.00,      0.00)  DC      NA
        6TH HIGHEST VALUE IS        0.00066 AT (  565800.00,  4192000.00,     178.00,      0.00)  DC      NA
        7TH HIGHEST VALUE IS        0.00063 AT (  565400.00,  4192100.00,     116.00,      0.00)  DC      NA
        8TH HIGHEST VALUE IS        0.00061 AT (  565289.25,  4192025.50,     107.00,      0.00)  DC      NA
        9TH HIGHEST VALUE IS        0.00057 AT (  565300.00,  4192100.00,     107.00,      0.00)  DC      NA
       10TH HIGHEST VALUE IS        0.00057 AT (  565600.00,  4192100.00,     140.00,      0.00)  DC      NA

GH      1ST HIGHEST VALUE IS        0.00012 AT (  566100.00,  4191600.00,     141.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS        0.00010 AT (  565289.25,  4192025.50,     107.00,      0.00)  DC      NA
        3RD HIGHEST VALUE IS        0.00010 AT (  565241.19,  4192017.75,     102.00,      0.00)  DC      NA
        4TH HIGHEST VALUE IS        0.00010 AT (  565500.00,  4192100.00,     126.00,      0.00)  DC      NA
        5TH HIGHEST VALUE IS        0.00009 AT (  565339.88,  4192034.25,     108.00,      0.00)  DC      NA
        6TH HIGHEST VALUE IS        0.00009 AT (  566200.00,  4191600.00,     144.00,      0.00)  DC      NA
        7TH HIGHEST VALUE IS        0.00009 AT (  565475.12,  4192018.00,     118.00,      0.00)  DC      NA
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            8TH HIGHEST VALUE IS        0.00009 AT (  565600.00,  4192100.00,    140.00,    0.00)  DC      NA
            9TH HIGHEST VALUE IS        0.00009 AT (  565191.50,  4192009.50,     97.00,    0.00)  DC      NA
           10TH HIGHEST VALUE IS        0.00009 AT (  565390.25,  4192042.25,    113.00,    0.00)  DC      NA


CH     1ST HIGHEST VALUE IS        0.00119 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.00046 AT (  565500.00,  4192100.00,    126.00,    0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.00045 AT (  565400.00,  4192100.00,    116.00,    0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.00044 AT (  565600.00,  4192100.00,    140.00,    0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.00029 AT (  565800.00,  4192000.00,    178.00,    0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.00029 AT (  565700.00,  4192100.00,    165.00,    0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.00029 AT (  565300.00,  4192100.00,    107.00,    0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.00024 AT (  565300.00,  4192200.00,    112.00,    0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.00024 AT (  565400.00,  4192200.00,    118.00,    0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.00023 AT (  565500.00,  4192200.00,    136.00,    0.00)  DC      NA



                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                  ** CONC OF CHRONIC  IN MICROGRAMS/M**3                      **

                                                                                            NETWORK
GROUP ID                     AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


DH     1ST HIGHEST VALUE IS        0.00023 AT (  565289.25,  4192025.50,    107.00,    0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.00018 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.00016 AT (  565390.25,  4192042.25,    113.00,    0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.00015 AT (  565460.56,  4192039.50,    117.00,    0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.00014 AT (  565438.25,  4192048.75,    117.00,    0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.00010 AT (  565339.88,  4192034.25,    108.00,    0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.00009 AT (  565300.00,  4192100.00,    107.00,    0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.00008 AT (  565241.19,  4192017.75,    102.00,    0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.00008 AT (  565500.00,  4192100.00,    126.00,    0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.00008 AT (  565200.00,  4192100.00,     99.00,    0.00)  DC      NA


HES    1ST HIGHEST VALUE IS        0.00328 AT (  565141.94,  4191999.00,     97.00,    0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.00326 AT (  565191.50,  4192009.50,     97.00,    0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.00291 AT (  565241.19,  4192017.75,    102.00,    0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.00218 AT (  565289.25,  4192025.50,    107.00,    0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.00208 AT (  565100.00,  4192000.00,     96.00,    0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.00178 AT (  565090.81,  4191991.50,     96.00,    0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.00167 AT (  565100.00,  4192100.00,    107.00,    0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.00165 AT (  565339.88,  4192034.25,    108.00,    0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.00153 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.00141 AT (  565460.56,  4192039.50,    117.00,    0.00)  DC      NA


HIL    1ST HIGHEST VALUE IS        0.06229 AT (  564795.00,  4191930.25,     78.00,    0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.05508 AT (  564748.50,  4191916.75,     75.00,    0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.05494 AT (  564842.69,  4191950.00,     83.00,    0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.04821 AT (  564941.88,  4191967.00,     90.00,    0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.04736 AT (  564892.25,  4191959.00,     84.00,    0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.03913 AT (  564800.00,  4192000.00,     81.00,    0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.03674 AT (  564900.00,  4192000.00,     88.00,    0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.03629 AT (  564991.81,  4191975.00,     93.00,    0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.03503 AT (  564700.00,  4192000.00,     76.00,    0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.03467 AT (  565000.00,  4192000.00,     98.00,    0.00)  DC      NA



                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                  ** CONC OF CHRONIC  IN MICROGRAMS/M**3                      **

                                                                                            NETWORK
GROUP ID                     AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MUL    1ST HIGHEST VALUE IS        0.00000 AT (  564664.50,  4191903.50,     71.00,    0.00)  DC      NA
       2ND HIGHEST VALUE IS        0.00000 AT (  564795.00,  4191930.25,     78.00,    0.00)  DC      NA
       3RD HIGHEST VALUE IS        0.00000 AT (  564648.62,  4191891.75,     68.00,    0.00)  DC      NA
       4TH HIGHEST VALUE IS        0.00000 AT (  564698.50,  4191908.75,     72.00,    0.00)  DC      NA
       5TH HIGHEST VALUE IS        0.00000 AT (  564842.69,  4191950.00,     83.00,    0.00)  DC      NA
       6TH HIGHEST VALUE IS        0.00000 AT (  564639.88,  4191852.00,     67.00,    0.00)  DC      NA
       7TH HIGHEST VALUE IS        0.00000 AT (  564748.50,  4191916.75,     75.00,    0.00)  DC      NA
       8TH HIGHEST VALUE IS        0.00000 AT (  564800.00,  4192000.00,     81.00,    0.00)  DC      NA
       9TH HIGHEST VALUE IS        0.00000 AT (  564645.94,  4191801.25,     66.00,    0.00)  DC      NA
      10TH HIGHEST VALUE IS        0.00000 AT (  564600.00,  4191900.00,     67.00,    0.00)  DC      NA
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WEL      1ST HIGHEST VALUE IS      0.00014 AT (  564795.00,  4191930.25,     78.00,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00010 AT (  564892.25,  4191959.00,     84.00,     0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00009 AT (  564941.88,  4191967.00,     90.00,     0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00009 AT (  564748.50,  4191916.75,     75.00,     0.00) DC     NA
         5TH HIGHEST VALUE IS      0.00009 AT (  564842.69,  4191950.00,     83.00,     0.00) DC     NA
         6TH HIGHEST VALUE IS      0.00008 AT (  564900.00,  4192000.00,     88.00,     0.00) DC     NA
         7TH HIGHEST VALUE IS      0.00007 AT (  564991.81,  4191975.00,     93.00,     0.00) DC     NA
         8TH HIGHEST VALUE IS      0.00007 AT (  564800.00,  4192000.00,     81.00,     0.00) DC     NA
         9TH HIGHEST VALUE IS      0.00007 AT (  564700.00,  4192000.00,     76.00,     0.00) DC     NA
        10TH HIGHEST VALUE IS      0.00007 AT (  564800.00,  4192100.00,     92.00,     0.00) DC     NA

NOENGINE 1ST HIGHEST VALUE IS      0.07319 AT (  564842.69,  4191950.00,     83.00,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.07253 AT (  564795.00,  4191930.25,     78.00,     0.00) DC     NA
         3RD HIGHEST VALUE IS      0.06347 AT (  564941.88,  4191967.00,     90.00,     0.00) DC     NA
         4TH HIGHEST VALUE IS      0.06312 AT (  564892.25,  4191959.00,     84.00,     0.00) DC     NA
         5TH HIGHEST VALUE IS      0.06306 AT (  564748.50,  4191916.75,     75.00,     0.00) DC     NA
         6TH HIGHEST VALUE IS      0.05423 AT (  564800.00,  4192000.00,     81.00,     0.00) DC     NA
         7TH HIGHEST VALUE IS      0.05228 AT (  564991.81,  4191975.00,     93.00,     0.00) DC     NA
         8TH HIGHEST VALUE IS      0.05101 AT (  564700.00,  4192000.00,     76.00,     0.00) DC     NA
         9TH HIGHEST VALUE IS      0.05025 AT (  565000.00,  4192000.00,     98.00,     0.00) DC     NA
        10TH HIGHEST VALUE IS      0.04929 AT (  564900.00,  4192000.00,     88.00,     0.00) DC     NA
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                       *** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

                     ** CONC OF CHRONIC IN MICROGRAMS/M**3   **

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                                                                             NETWORK
GROUP ID                     AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ENGINE   1ST HIGHEST VALUE IS      0.00258 AT (  564700.00,  4192000.00,     76.00,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00238 AT (  564892.25,  4191959.00,     84.00,     0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00222 AT (  565800.00,  4191200.00,    100.00,     0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00221 AT (  564941.88,  4191967.00,     90.00,     0.00) DC     NA
         5TH HIGHEST VALUE IS      0.00205 AT (  564991.81,  4191975.00,     93.00,     0.00) DC     NA
         6TH HIGHEST VALUE IS      0.00204 AT (  565700.00,  4191200.00,     93.00,     0.00) DC     NA
         7TH HIGHEST VALUE IS      0.00204 AT (  565800.00,  4191000.00,     95.00,     0.00) DC     NA
         8TH HIGHEST VALUE IS      0.00201 AT (  564800.00,  4192000.00,     81.00,     0.00) DC     NA
         9TH HIGHEST VALUE IS      0.00199 AT (  565000.00,  4192000.00,     98.00,     0.00) DC     NA
        10TH HIGHEST VALUE IS      0.00190 AT (  565376.81,  4191332.25,     87.00,     0.00) DC     NA

PRINT    1ST HIGHEST VALUE IS      0.00857 AT (  564673.81,  4191519.00,     63.00,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00497 AT (  564675.81,  4191504.00,     62.00,     0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00222 AT (  564550.38,  4191600.50,     60.00,     0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00208 AT (  564678.75,  4191454.25,     62.00,     0.00) DC     NA
         5TH HIGHEST VALUE IS      0.00205 AT (  564557.88,  4191553.00,     60.00,     0.00) DC     NA
         6TH HIGHEST VALUE IS      0.00185 AT (  564603.69,  4191609.25,     62.00,     0.00) DC     NA
         7TH HIGHEST VALUE IS      0.00148 AT (  564665.12,  4191621.25,     65.00,     0.00) DC     NA
         8TH HIGHEST VALUE IS      0.00128 AT (  564500.00,  4191600.00,     59.00,     0.00) DC     NA
         9TH HIGHEST VALUE IS      0.00117 AT (  564678.50,  4191403.75,     61.00,     0.00) DC     NA
        10TH HIGHEST VALUE IS      0.00114 AT (  564617.12,  4191507.50,     60.00,     0.00) DC     NA

COMBUST  1ST HIGHEST VALUE IS      0.01897 AT (  566200.00,  4191300.00,    158.00,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.01846 AT (  566100.00,  4191400.00,    149.00,     0.00) DC     NA
         3RD HIGHEST VALUE IS      0.01837 AT (  566200.00,  4191400.00,    174.00,     0.00) DC     NA
         4TH HIGHEST VALUE IS      0.01760 AT (  566300.00,  4191300.00,    176.00,     0.00) DC     NA
         5TH HIGHEST VALUE IS      0.01715 AT (  566100.00,  4191300.00,    140.00,     0.00) DC     NA
         6TH HIGHEST VALUE IS      0.01694 AT (  566400.00,  4191200.00,    166.00,     0.00) DC     NA
         7TH HIGHEST VALUE IS      0.01683 AT (  566400.00,  4191100.00,    174.00,     0.00) DC     NA
         8TH HIGHEST VALUE IS      0.01673 AT (  566300.00,  4191400.00,    204.00,     0.00) DC     NA
         9TH HIGHEST VALUE IS      0.01652 AT (  566400.00,  4191000.00,    162.00,     0.00) DC     NA
        10TH HIGHEST VALUE IS      0.01650 AT (  566200.00,  4191200.00,    142.00,     0.00) DC     NA
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                       *** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

                     ** CONC OF CHRONIC IN MICROGRAMS/M**3   **

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                                                                             NETWORK
GROUP ID                     AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

HAZMAT   1ST HIGHEST VALUE IS      0.00001 AT (  564976.62,  4191271.75,     73.00,     0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00001 AT (  565026.56,  4191279.00,     74.00,     0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00001 AT (  564927.50,  4191263.50,     71.00,     0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00001 AT (  564665.12,  4191621.25,     65.00,     0.00) DC     NA
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         5TH HIGHEST VALUE IS         0.00001 AT (  565077.25,  4191285.50,     76.00,      0.00)  DC      NA
         6TH HIGHEST VALUE IS         0.00001 AT (  565176.31,  4191303.25,     79.00,      0.00)  DC      NA
         7TH HIGHEST VALUE IS         0.00001 AT (  565127.75,  4191295.25,     77.00,      0.00)  DC      NA
         8TH HIGHEST VALUE IS         0.00001 AT (  564663.00,  4191652.50,     65.00,      0.00)  DC      NA
         9TH HIGHEST VALUE IS         0.00001 AT (  565200.00,  4191300.00,     80.00,      0.00)  DC      NA
        10TH HIGHEST VALUE IS         0.00001 AT (  565376.81,  4191332.25,     87.00,      0.00)  DC      NA

PAINT    1ST HIGHEST VALUE IS         0.00007 AT (  565191.50,  4192009.50,     97.00,      0.00)  DC      NA
         2ND HIGHEST VALUE IS         0.00006 AT (  565141.94,  4191999.00,     97.00,      0.00)  DC      NA
         3RD HIGHEST VALUE IS         0.00006 AT (  565675.94,  4191381.00,     98.00,      0.00)  DC      NA
         4TH HIGHEST VALUE IS         0.00006 AT (  565626.50,  4191370.25,     95.00,      0.00)  DC      NA
         5TH HIGHEST VALUE IS         0.00006 AT (  565026.56,  4191279.00,     74.00,      0.00)  DC      NA
         6TH HIGHEST VALUE IS         0.00006 AT (  565241.19,  4192017.75,    102.00,      0.00)  DC      NA
         7TH HIGHEST VALUE IS         0.00005 AT (  565100.00,  4192000.00,     96.00,      0.00)  DC      NA
         8TH HIGHEST VALUE IS         0.00005 AT (  564976.62,  4191271.75,     73.00,      0.00)  DC      NA
         9TH HIGHEST VALUE IS         0.00005 AT (  565090.81,  4191991.50,     96.00,      0.00)  DC      NA
        10TH HIGHEST VALUE IS         0.00005 AT (  565726.62,  4191386.25,    100.00,      0.00)  DC      NA

ALL_LABS 1ST HIGHEST VALUE IS         0.07224 AT (  564842.69,  4191950.00,     83.00,      0.00)  DC      NA
         2ND HIGHEST VALUE IS         0.07173 AT (  564795.00,  4191930.25,     78.00,      0.00)  DC      NA
         3RD HIGHEST VALUE IS         0.06227 AT (  564748.50,  4191916.75,     75.00,      0.00)  DC      NA
         4TH HIGHEST VALUE IS         0.06215 AT (  564941.88,  4191967.00,     90.00,      0.00)  DC      NA
         5TH HIGHEST VALUE IS         0.06213 AT (  564892.25,  4191959.00,     84.00,      0.00)  DC      NA
         6TH HIGHEST VALUE IS         0.05340 AT (  564800.00,  4192000.00,     81.00,      0.00)  DC      NA
         7TH HIGHEST VALUE IS         0.05081 AT (  564991.81,  4191975.00,     93.00,      0.00)  DC      NA
         8TH HIGHEST VALUE IS         0.05024 AT (  564700.00,  4192000.00,     76.00,      0.00)  DC      NA
         9TH HIGHEST VALUE IS         0.04838 AT (  565000.00,  4192000.00,     98.00,      0.00)  DC      NA
        10TH HIGHEST VALUE IS         0.04807 AT (  564900.00,  4192000.00,     88.00,      0.00)  DC      NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh Senstive Receptors            ***
*** Model Executed on 02/04/04 at 18:45:31 ***
 Input File - D:\Beest\UCBerk\10-03\Final\Existing-Chron-Sensitive.DTA

Output File - D:\Beest\UCBerk\10-03\Final\Existing-Chron-Sensitive.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc

      Number of sources -        126
Number of source groups -         27
     Number of receptors -       259


                              *** POINT SOURCE DATA ***


                NUMBER EMISSION RATE              BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
        SOURCE   PART.  (GRAMS/SEC)    X       Y   ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
          ID    CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

      WHSTK1_8    0   0.21000E-05  564704.4 4191782.8   66.8   31.70  293.15     7.12     0.19      YES
      NWAF9       0   0.75100E-04  564718.8 4191791.2   66.8   29.57  293.15    16.48     0.74      YES
      WHSTK10     0   0.21000E-05  564724.4 4191826.0   66.8    8.60  293.15     7.12     0.34      YES
      MHSTK1      0   0.37600E-05  564794.4 4191795.8   74.8    7.61  293.15    17.25     0.34      YES
      MHSTK2      0   0.37600E-05  564798.6 4191843.0   74.8   10.89  293.15    17.25     0.29      YES
      MHSTK3      0   0.37600E-05  564794.1 4191843.0   74.8   10.89  293.15    17.25     0.48      YES
      MHSTK4      0   0.37600E-05  564800.9 4191787.2   74.8   15.61  293.15    17.25     0.33      YES
      MHSTK6      0   0.37600E-05  564801.3 4191808.2   74.8   10.94  293.15    17.25     0.34      YES
      KHSTK1      0   0.11500E-03  564761.1 4191879.8   72.7   18.45  293.15     1.28     2.76      YES
      KHSTK2      0   0.11500E-03  564759.4 4191891.8   72.7   18.45  293.15     1.28     2.76      YES
      KHSTK3      0   0.11500E-03  564732.4 4191877.5   72.7   18.45  293.15     1.28     2.76      YES
      KHSTK4      0   0.11500E-03  564731.4 4191889.0   72.7   18.45  293.15     1.28     2.76      YES
      BHSTK1      0   0.11600E-04  564678.9 4191889.0   67.4   27.85  293.15     2.78     1.26      YES
      BHSTK2      0   0.11600E-04  564675.0 4191896.8   67.4   29.68  293.15     2.78     1.26      YES
      BHSTK3      0   0.11600E-04  564704.5 4191898.0   67.4   29.68  293.15     2.78     1.26      YES
      BHSTK4      0   0.11600E-04  564707.4 4191887.8   67.4   33.34  293.15     2.78     0.37      YES
      BHSTK5      0   0.11600E-04  564691.6 4191888.0   67.4   33.34  293.15     2.78     0.37      YES
      VLSBSTK1    0   0.12100E-03  564933.6 4191633.2   64.4   27.04  293.15     3.97     1.22      YES
      VLSBSTK2    0   0.12100E-03  564954.0 4191566.5   64.4   27.04  293.15     3.97     1.22      YES
      VLSBSTK3    0   0.12100E-03  565051.3 4191594.8   64.4   27.04  293.15     3.97     1.22      YES
      VLSBSTK4    0   0.12100E-03  565030.6 4191662.2   64.4   27.04  293.15     3.97     1.22      YES
      LSASTK1     0   0.70000E-04  564892.2 4191637.2   64.4   28.31  293.15     5.18     1.22      YES
      LSASTK2     0   0.70000E-04  564875.3 4191632.8   64.4   28.31  293.15     5.18     1.22      YES
      LSASTK3     0   0.70000E-04  564907.6 4191580.5   64.4   28.31  293.15     5.18     1.22      YES
      LSASTK4     0   0.70000E-04  564897.1 4191578.0   64.4   28.31  293.15     5.18     1.22      YES
      LSASTK5     0   0.70000E-04  564908.6 4191576.2   64.4   28.31  293.15     5.18     1.22      YES
      LSASTK6     0   0.70000E-04  564899.1 4191573.5   64.4   28.31  293.15     5.18     1.22      YES
      LSASTK7     0   0.70000E-04  564900.8 4191572.2   64.4   28.31  293.15     5.18     0.30      YES
      LEWHSTK1    0   0.21600E-05  565605.8 4191772.0  106.7   12.80  293.15     3.11     0.36      YES
      LEWHSTK2    0   0.21600E-05  565591.5 4191786.0  106.7   12.80  293.15     3.11     0.36      YES
      LEWHSTK3    0   0.21600E-05  565585.9 4191792.2  106.7   12.80  293.15     3.11     0.36      YES
      LEWHSTK4    0   0.21600E-05  565583.1 4191800.0  106.7   12.80  293.15     3.11     0.36      YES
      LEWHSTK5    0   0.21600E-05  565598.1 4191787.8  106.7   12.80  293.15     3.11     0.36      YES
      LEWHSTK6    0   0.21600E-05  565619.4 4191775.8  106.7   12.80  293.15     3.11     0.36      YES
      LEWHSTK7    0   0.21600E-05  565608.8 4191787.2  106.7   12.80  293.15     3.11     0.36      YES
      LEWHSTK8    0   0.21600E-05  565597.6 4191800.5  106.7   12.80  293.15     3.11     0.30      YES
      LEWHSTK9    0   0.21600E-05  565593.3 4191808.2  106.7   12.80  293.15     3.11     0.36      YES
      LATHSTK1    0   0.92400E-05  565555.1 4191799.2  104.6   42.37  293.15     6.28     0.34      YES
      LATHSTK2    0   0.92400E-05  565561.1 4191812.0  104.6   36.88  293.15     6.28     0.70      YES
      LATHSTK3    0   0.92400E-05  565531.6 4191800.2  104.6   36.88  293.15     6.28     0.48      YES


                              *** POINT SOURCE DATA ***


                NUMBER EMISSION RATE              BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
        SOURCE   PART.  (GRAMS/SEC)    X       Y   ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
          ID    CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


      LATHSTK4    0   0.92400E-05  565515.1 4191799.5  104.6   37.19  293.15     6.28     0.96      YES
      LATHSTK5    0   0.92400E-05  565539.7 4191794.2  104.6   42.37  293.15     6.28     0.70      YES
      LATHSTK6    0   0.92400E-05  565527.3 4191776.0  104.6   38.40  293.15     6.28     0.74      YES
      LATHSTK7    0   0.92400E-05  565544.9 4191781.5  104.6   38.40  293.15     6.28     0.31      YES
      LATHSTK8    0   0.92400E-05  565562.3 4191787.0  104.6   38.40  293.15     6.28     0.70      YES
      TANHSTKA    0   0.79700E-05  565492.1 4191632.8  100.6   39.32  293.15     2.94     1.69      YES
      TANHSTKB    0   0.79700E-05  565496.8 4191794.0  100.6   39.32  293.15     2.94     1.69      YES
      TANHSTKC    0   0.79700E-05  565494.1 4191787.2  100.6   39.32  293.15     2.94     1.69      YES
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TANHSTKD      0   0.79700E-05  565499.1 4191788.2  100.6   39.32   293.15    2.94      1.69      YES
HHSTKA        0   0.19400E-04  565540.8 4191749.5  103.6   20.12   293.15    4.15      1.52      YES
HHSTKB        0   0.19400E-04  565565.6 4191756.8  103.6   20.12   293.15    4.15      1.52      YES
HHSTKC        0   0.19400E-04  565576.8 4191717.8  103.6   20.12   293.15    4.15      1.52      YES
HHSTKD        0   0.19400E-04  565553.2 4191710.5  103.6   20.12   293.15    4.15      1.52      YES
HHSTKE        0   0.19400E-04  565543.4 4191746.5  103.6   20.12   293.15    4.15      0.81      YES
STHSTK1       0   0.54300E-05  565530.3 4191891.8  112.8   13.87   293.15    2.17      0.27      YES
STHSTK2       0   0.54300E-05  565522.0 4191918.2  112.8   13.87   293.15    2.17      0.34      YES
STHSTK3       0   0.54300E-05  565537.9 4191871.8  112.8   17.56   293.15    2.17      0.34      YES
STHSTK4       0   0.54300E-05  565529.5 4191871.8  112.8   13.87   293.15    2.17      0.34      YES
STHSTK5       0   0.54300E-05  565530.9 4191870.0  112.8   14.02   293.15    2.17      0.34      YES
STHSTK6       0   0.54300E-05  565530.1 4191869.5  112.8   14.02   293.15    2.17      0.27      YES
STHSTK7       0   0.54300E-05  565532.6 4191866.5  112.8   14.02   293.15    2.17      0.39      YES
STHSTK8       0   0.54300E-05  565538.2 4191864.0  112.8   14.02   293.15    2.17      0.27      YES
STHSTK9       0   0.54300E-05  565525.9 4191880.5  112.8   14.02   293.15    2.17      0.53      YES
STHSTK11      0   0.54300E-05  565519.0 4191907.5  112.8   13.87   293.15    2.17      0.34      YES
GHSTK1        0   0.12100E-05  565507.1 4191756.0  103.6   16.06   293.15    5.92      0.30      YES
GHSTK2        0   0.12100E-05  565510.6 4191744.8  103.6   16.06   293.15    5.92      0.25      YES
GHSTK3        0   0.12100E-05  565512.4 4191739.0  103.6   16.37   293.15    5.92      0.30      YES
GHSTK4        0   0.12100E-05  565514.7 4191737.8  103.6   15.91   293.15    5.92      0.31      YES
GHSTK5        0   0.12100E-05  565514.9 4191732.2  103.6   16.06   293.15    5.92      0.30      YES
GHSTK6        0   0.12100E-05  565500.2 4191755.2  103.6   16.12   293.15    5.92      0.30      YES
GHSTK7        0   0.12100E-05  565501.1 4191753.0  103.6   16.37   293.15    5.92      0.84      YES
GHSTK8        0   0.12100E-05  565503.7 4191744.2  103.6   16.00   293.15    5.92      0.30      YES
GHSTK9        0   0.12100E-05  565505.2 4191740.2  103.6   16.37   293.15    5.92      0.26      YES
GHSTK10       0   0.12100E-05  565506.9 4191735.2  103.6   16.06   293.15    5.92      0.30      YES
GHSTK11       0   0.12100E-05  565509.7 4191728.2  103.6   16.22   293.15    5.92      0.30      YES
GHSTK12       0   0.12100E-05  565509.0 4191725.5  103.6   16.06   293.15    5.92      0.30      YES
GHSTK13       0   0.12100E-05  565516.9 4191725.8  103.6   15.91   293.15    5.92      0.40      YES
CHSTK1        0   0.30600E-04  565393.9 4192008.8  110.3   26.85   293.15    2.00      1.00      YES
DHSTK1        0   0.56800E-05  565329.4 4191982.0  107.2   16.36   293.15    2.00      1.00      YES
HESSTK1       0   0.98800E-04  565234.6 4191926.2   98.2   15.39   293.15    2.00      1.00      YES
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                                    *** POINT SOURCE DATA ***


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             NUMBER EMISSION RATE                   BASE    STACK   STACK    STACK      STACK     BUILDING EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)    X        Y        ELEV.   HEIGHT  TEMP.    EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
     ID      CATS.                (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)   (METERS)            BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   HILSTK1     0   0.28000E-02  564874.6 4191815.0   80.4   14.96   293.15    2.00      1.00      YES
   MULSTK1     0   0.12000E-06  564779.7 4191737.8   74.4   17.24   293.15    2.00      1.00      YES
   WELSTK1     0   0.39400E-05  564933.7 4191795.2   81.7    5.89   293.15    2.00      1.00      YES
   PRINTA      0   0.10200E-04  564584.7 4191553.2   60.0    8.91   293.15    2.70      0.84      YES
   PRINTB      0   0.10200E-04  564614.4 4191520.8   60.0    8.91   293.15    2.70      0.84      YES
   PRINTC      0   0.10200E-04  564643.1 4191525.5   60.0    8.91   293.15    2.70      0.60      YES
   COGEN       0   0.17900E-01  564876.0 4191492.0   71.9   12.77   430.37   10.45      2.28      YES
   BOILER#2    0   0.11700E-03  564863.6 4191499.5   71.9    8.80   522.82    7.97      1.52      YES
   BOILER#3    0   0.44700E-03  564881.9 4191505.8   71.9    8.80   554.11   10.53      1.52      YES
   BOILER#4    0   0.54000E-03  564885.8 4191495.8   71.9    8.80   566.65   12.63      1.52      YES
   POURING     0   0.91700E-06  564847.8 4191467.0   70.1   14.94   293.15    4.62      0.56      YES
   ENG_62      0   0.31494E-05  565567.6 4191086.5   85.1    4.57   800.37  146.01      0.13      NO
   ENG_63      0   0.15700E-05  564668.2 4191897.5   70.2    4.57   799.85  152.00      0.13      YES
   ENG_64      0   0.48200E-06  565452.9 4191687.0   98.2    3.05   817.07   58.47      0.08      YES
   ENG_105     0   0.49470E-04  564939.1 4191457.8   71.1    4.57   810.96   70.10      0.23      YES
   ENG_106     0   0.41470E-04  564991.6 4191614.5   73.6   30.48   810.96   70.10      0.20      YES
   ENG_107     0   0.33184E-04  564767.4 4191906.8   76.2    0.00   810.96   70.10      0.18      YES
   ENG_108     0   0.33184E-04  564930.6 4191564.2   68.8    7.62   810.96   70.10      0.18      YES
   ENG_109     0   0.11064E-04  565615.8 4191801.2  111.7    3.05   810.96   70.10      0.15      YES
   ENG_110     0   0.55239E-05  564655.9 4191874.5   68.4    4.57   810.96   70.10      0.10      YES
   ENG_111     0   0.15870E-04  565091.1 4191757.8   78.9    3.05   810.96   70.10      0.11      YES
   ENG_112     0   0.13810E-04  565542.8 4191208.2   85.7    3.05   810.93   70.10      0.10      NO
   ENG_113     0   0.13810E-04  565673.6 4191194.8   92.0    3.05   810.93   70.10      0.10      NO
   ENG_114     0   0.13810E-04  565601.4 4191014.2   86.0    3.05   810.93   70.10      0.10      NO
   ENG_115     0   0.13810E-04  565702.9 4190991.8   91.4    3.05   810.93   70.10      0.10      NO
   ENG_116     0   0.13810E-04  564775.8 4191177.5   63.2    4.57   810.93   70.10      0.10      NO
   ENG_117     0   0.13810E-04  565575.9 4191609.0   99.3    3.05   810.96   70.10      0.10      YES
   ENG_118     0   0.65956E-05  564654.8 4191890.5   68.6    4.57   810.96   70.10      0.13      YES
   ENG_119     0   0.96873E-05  564728.8 4191771.0   70.5    4.57   810.96   70.10      0.08      YES
   ENG_120     0   0.69666E-05  565318.0 4191422.5   86.1    3.05   810.96   70.10      0.08      YES
   ENG_121     0   0.69254E-05  565926.2 4191443.0  118.9    3.05   810.93   70.10      0.08      NO
   ENG_123     0   0.85331E-05  565259.4 4191652.8   88.3    3.05   810.96   70.10      0.08      YES
   ENG_125     0   0.27372E-05  564811.2 4191460.8   67.7    3.05   810.96   70.10      0.08      YES
   ENG_126     0   0.22095E-05  565137.9 4191441.5   77.6    0.00   810.96   70.10      0.08      YES
   ENG_128     0   0.27619E-05  565469.2 4191955.2  109.8    3.05   810.96   70.10      0.05      YES
   ENG_129     0   0.27619E-05  565383.1 4191740.2   97.0    2.44   810.96   70.10      0.05      YES
   ENG_130     0   0.17128E-05  565533.3 4191713.5   98.9    2.44   815.40  134.54      0.08      YES
   ENG_131     0   0.48231E-06  564970.3 4191484.2   71.3    1.83   817.07   58.47      0.08      YES
   ENG_132     0   0.48231E-06  564800.3 4191781.8   74.3    1.83   817.07   58.47      0.08      YES
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    E134_133      0   0.12449E-04  565380.0 4191939.2   104.3    3.05   769.29   135.05     0.13      YES


                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                BASE    RELEASE   INIT.   INIT.  EMISSION RATE
     SOURCE    PART.  (GRAMS/SEC)     X        Y    ELEV.   HEIGHT    SY      SZ   SCALAR VARY
       ID      CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)    BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     MHSTK5      0   0.37600E-05  564821.2 4191842.8   74.8    6.95    0.07    2.42
     STHSTK10    0   0.54300E-05  565522.6 4191880.8  112.8   14.02    0.29    5.39
     PAINT1      0   0.88200E-06  564917.1 4191432.5   72.0    4.57    3.54    4.25
     PAINT2      0   0.88200E-06  565322.7 4191834.8   96.0    4.57    3.54    4.25
     PAINT3      0   0.88200E-06  565541.5 4191525.8   97.0    4.57    3.54    4.25
     PAINT4      0   0.88200E-06  564865.7 4191751.0   77.0    4.57    3.54    4.25


                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

   GROUP ID                                        SOURCE IDs


   ALL      WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
            STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
            GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
            WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
            PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
            ENG_113 , ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 ,
ENG_126 ,
            ENG_128 , ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

   WH       WHSTK1_8, WHSTK10 ,

   NWAF     NWAF9   ,

   MH       MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

   KH       KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

   BH       BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

   VLSB     VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

   LSA      LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

   LEW      LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,
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   LAT        LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***
   GROUP ID                                         SOURCE IDs


   TAN        TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

   HH         HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

   STH        STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 , STHSTK5 , STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10,

   GH         GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
              GHSTK12 ,

              GHSTK13 ,

   CH         CHSTK1  ,

   DH         DHSTK1  ,

   HES        HESSTK1 ,

   HIL        HILSTK1 ,

   MUL        MULSTK1 ,

   WEL        WELSTK1 ,

   NOENGINE   WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
              ,

              KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
              LSASTK2 ,

              LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
              LEWHSTK7,

              LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
              TANHSTKB,

              TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
              STHSTK5 ,

              STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
              ,

              GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
              MULSTK1 ,

              WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
              ,

              PAINT4  ,

                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***
   GROUP ID                                         SOURCE IDs


   ENGINE     ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
              ENG_113 ,

              ENG_114 , ENG_115 , ENG_116 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
              ENG_128 ,
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          ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,

  PRINT     PRINTA , PRINTB , PRINTC ,

  COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

  HAZMAT    POURING ,

  PAINT     PAINT1 , PAINT2 , PAINT3 , PAINT4 ,

  ALL_LABS  WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , STHSTK1 , STHSTK2 , STHSTK3 , STHSTK4 ,
STHSTK5 ,
          STHSTK6 , STHSTK7 , STHSTK8 , STHSTK9 , STHSTK11, STHSTK10, GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6
,
          GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , DHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
          WELSTK1 ,


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CHRONIC  IN MICROGRAMS/M**3                      **

                                                                                          NETWORK
  GROUP ID                     AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


  ALL      1ST HIGHEST VALUE IS     0.04630 AT ( 564945.62, 4192065.50,   102.72,     0.00) DC      NA
           2ND HIGHEST VALUE IS     0.03226 AT ( 565700.06, 4191711.25,   109.42,     0.00) DC      NA
           3RD HIGHEST VALUE IS     0.03178 AT ( 565700.06, 4191711.25,   108.20,     0.00) DC      NA
           4TH HIGHEST VALUE IS     0.03154 AT ( 564926.69, 4192158.75,   109.42,     0.00) DC      NA
           5TH HIGHEST VALUE IS     0.02924 AT ( 565009.00, 4192130.00,   110.64,     0.00) DC      NA
           6TH HIGHEST VALUE IS     0.02007 AT ( 565144.62, 4192620.50,   154.84,     0.00) DC      NA
           7TH HIGHEST VALUE IS     0.01869 AT ( 565202.31, 4192629.00,   160.32,     0.00) DC      NA
           8TH HIGHEST VALUE IS     0.01811 AT ( 565233.75, 4192605.00,   159.72,     0.00) DC      NA
           9TH HIGHEST VALUE IS     0.01783 AT ( 564487.38, 4192391.25,    80.16,     0.00) DC      NA
          10TH HIGHEST VALUE IS     0.01774 AT ( 564591.56, 4192414.75,    83.82,     0.00) DC      NA


  WH       1ST HIGHEST VALUE IS     0.00002 AT ( 564945.62, 4192065.50,   102.72,     0.00) DC      NA
           2ND HIGHEST VALUE IS     0.00002 AT ( 564228.31, 4192049.25,    64.62,     0.00) DC      NA
           3RD HIGHEST VALUE IS     0.00002 AT ( 564487.38, 4192391.25,    80.16,     0.00) DC      NA
           4TH HIGHEST VALUE IS     0.00002 AT ( 564926.69, 4192158.75,   109.42,     0.00) DC      NA
           5TH HIGHEST VALUE IS     0.00002 AT ( 564160.38, 4192207.75,    64.31,     0.00) DC      NA
           6TH HIGHEST VALUE IS     0.00001 AT ( 565009.00, 4192130.00,   110.64,     0.00) DC      NA
           7TH HIGHEST VALUE IS     0.00001 AT ( 564249.94, 4192208.00,    66.75,     0.00) DC      NA
           8TH HIGHEST VALUE IS     0.00001 AT ( 564079.94, 4192117.50,    61.57,     0.00) DC      NA
           9TH HIGHEST VALUE IS     0.00001 AT ( 564591.56, 4192414.75,    83.82,     0.00) DC      NA
          10TH HIGHEST VALUE IS     0.00001 AT ( 564933.25, 4191275.25,    71.32,     0.00) DC      NA


  NWAF     1ST HIGHEST VALUE IS     0.00027 AT ( 564945.62, 4192065.50,   102.72,     0.00) DC      NA
           2ND HIGHEST VALUE IS     0.00023 AT ( 565700.06, 4191711.25,   108.20,     0.00) DC      NA
           3RD HIGHEST VALUE IS     0.00023 AT ( 564926.69, 4192158.75,   109.42,     0.00) DC      NA
           4TH HIGHEST VALUE IS     0.00023 AT ( 565700.06, 4191711.25,   109.42,     0.00) DC      NA
           5TH HIGHEST VALUE IS     0.00022 AT ( 565009.00, 4192130.00,   110.64,     0.00) DC      NA
           6TH HIGHEST VALUE IS     0.00016 AT ( 564933.25, 4191275.25,    71.32,     0.00) DC      NA
           7TH HIGHEST VALUE IS     0.00012 AT ( 565070.19, 4191077.50,    70.41,     0.00) DC      NA
           8TH HIGHEST VALUE IS     0.00011 AT ( 564735.81, 4192658.00,   100.28,     0.00) DC      NA
           9TH HIGHEST VALUE IS     0.00011 AT ( 564729.75, 4192662.25,   100.28,     0.00) DC      NA
          10TH HIGHEST VALUE IS     0.00011 AT ( 566063.25, 4190799.75,   101.19,     0.00) DC      NA
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                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


                  ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                       NETWORK
GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

MH      1ST HIGHEST VALUE IS    0.00019 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.00015 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.00012 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.00012 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.00011 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.00010 AT (  564249.94,  4192208.00,     66.75,     0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.00010 AT (  564933.25,  4191275.25,     71.32,     0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.00009 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.00009 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.00008 AT (  564525.06,  4192613.75,     85.65,     0.00)  DC      NA

KH      1ST HIGHEST VALUE IS    0.00366 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.00242 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.00238 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.00178 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.00156 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.00156 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.00153 AT (  564249.94,  4192208.00,     66.75,     0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.00152 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.00125 AT (  564933.25,  4191275.25,     71.32,     0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.00123 AT (  564160.38,  4192207.75,     64.31,     0.00)  DC      NA

BH      1ST HIGHEST VALUE IS    0.00037 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.00024 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.00021 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.00016 AT (  564249.94,  4192208.00,     66.75,     0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.00016 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.00016 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.00015 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.00013 AT (  564228.31,  4192049.25,     64.62,     0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.00013 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.00013 AT (  564160.38,  4192207.75,     64.31,     0.00)  DC      NA


                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


                  ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                       NETWORK
GROUP ID                        AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

VLSB    1ST HIGHEST VALUE IS    0.00235 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.00169 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.00168 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.00150 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.00150 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.00141 AT (  565328.31,  4191032.50,     74.68,     0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.00112 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.00105 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.00102 AT (  566063.25,  4190799.75,    101.19,     0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.00099 AT (  565070.19,  4191077.50,     70.41,     0.00)  DC      NA

LSA     1ST HIGHEST VALUE IS    0.00230 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.00142 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.00141 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.00139 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.00138 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.00132 AT (  565070.19,  4191077.50,     70.41,     0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.00130 AT (  564933.25,  4191275.25,     71.32,     0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.00129 AT (  565328.31,  4191032.50,     74.68,     0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.00097 AT (  564249.94,  4192208.00,     66.75,     0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.00095 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC      NA

LEW     1ST HIGHEST VALUE IS    0.00044 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.00043 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.00007 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC      NA
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            4TH HIGHEST VALUE IS      0.00006 AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
            5TH HIGHEST VALUE IS      0.00006 AT (  565202.31,  4192629.00,    160.32,    0.00) DC     NA
            6TH HIGHEST VALUE IS      0.00006 AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
            7TH HIGHEST VALUE IS      0.00005 AT (  566093.38,  4191024.75,    114.60,    0.00) DC     NA
            8TH HIGHEST VALUE IS      0.00005 AT (  564926.69,  4192158.75,    109.42,    0.00) DC     NA
            9TH HIGHEST VALUE IS      0.00005 AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
           10TH HIGHEST VALUE IS      0.00004 AT (  566166.56,  4190836.25,    107.59,    0.00) DC     NA
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                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


              ** CONC OF CHRONIC  IN MICROGRAMS/M**3                       **

                                                                                    NETWORK
GROUP ID                          AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


LAT      1ST HIGHEST VALUE IS      0.00060 AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00056 AT (  565700.06,  4191711.25,    108.20,    0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00016 AT (  565144.62,  4192620.50,    154.84,    0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00015 AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
         5TH HIGHEST VALUE IS      0.00014 AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
         6TH HIGHEST VALUE IS      0.00014 AT (  565202.31,  4192629.00,    160.32,    0.00) DC     NA
         7TH HIGHEST VALUE IS      0.00013 AT (  564926.69,  4192158.75,    109.42,    0.00) DC     NA
         8TH HIGHEST VALUE IS      0.00011 AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         9TH HIGHEST VALUE IS      0.00009 AT (  566093.38,  4191024.75,    114.60,    0.00) DC     NA
        10TH HIGHEST VALUE IS      0.00007 AT (  564735.81,  4192658.00,    100.28,    0.00) DC     NA

TAN      1ST HIGHEST VALUE IS      0.00032 AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00030 AT (  565700.06,  4191711.25,    108.20,    0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00008 AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00006 AT (  565144.62,  4192620.50,    154.84,    0.00) DC     NA
         5TH HIGHEST VALUE IS      0.00006 AT (  564926.69,  4192158.75,    109.42,    0.00) DC     NA
         6TH HIGHEST VALUE IS      0.00006 AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         7TH HIGHEST VALUE IS      0.00006 AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
         8TH HIGHEST VALUE IS      0.00006 AT (  565202.31,  4192629.00,    160.32,    0.00) DC     NA
         9TH HIGHEST VALUE IS      0.00004 AT (  566093.38,  4191024.75,    114.60,    0.00) DC     NA
        10TH HIGHEST VALUE IS      0.00003 AT (  564735.81,  4192658.00,    100.28,    0.00) DC     NA

HH       1ST HIGHEST VALUE IS      0.00273 AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00255 AT (  565700.06,  4191711.25,    108.20,    0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00028 AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00025 AT (  564926.69,  4192158.75,    109.42,    0.00) DC     NA
         5TH HIGHEST VALUE IS      0.00024 AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         6TH HIGHEST VALUE IS      0.00024 AT (  565144.62,  4192620.50,    154.84,    0.00) DC     NA
         7TH HIGHEST VALUE IS      0.00022 AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
         8TH HIGHEST VALUE IS      0.00021 AT (  565202.31,  4192629.00,    160.32,    0.00) DC     NA
         9TH HIGHEST VALUE IS      0.00017 AT (  566093.38,  4191024.75,    114.60,    0.00) DC     NA
        10TH HIGHEST VALUE IS      0.00014 AT (  564735.81,  4192658.00,    100.28,    0.00) DC     NA


                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


              ** CONC OF CHRONIC  IN MICROGRAMS/M**3                       **

                                                                                    NETWORK
GROUP ID                          AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


STH      1ST HIGHEST VALUE IS      0.00065 AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00062 AT (  565700.06,  4191711.25,    108.20,    0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00031 AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00025 AT (  564926.69,  4192158.75,    109.42,    0.00) DC     NA
         5TH HIGHEST VALUE IS      0.00024 AT (  565144.62,  4192620.50,    154.84,    0.00) DC     NA
         6TH HIGHEST VALUE IS      0.00022 AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
         7TH HIGHEST VALUE IS      0.00022 AT (  565202.31,  4192629.00,    160.32,    0.00) DC     NA
         8TH HIGHEST VALUE IS      0.00017 AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         9TH HIGHEST VALUE IS      0.00012 AT (  564735.81,  4192658.00,    100.28,    0.00) DC     NA
        10TH HIGHEST VALUE IS      0.00012 AT (  564729.75,  4192662.25,    100.28,    0.00) DC     NA

GH       1ST HIGHEST VALUE IS      0.00044 AT (  565700.06,  4191711.25,    109.42,    0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00043 AT (  565700.06,  4191711.25,    108.20,    0.00) DC     NA
         3RD HIGHEST VALUE IS      0.00007 AT (  565009.00,  4192130.00,    110.64,    0.00) DC     NA
         4TH HIGHEST VALUE IS      0.00006 AT (  564945.62,  4192065.50,    102.72,    0.00) DC     NA
         5TH HIGHEST VALUE IS      0.00006 AT (  564926.69,  4192158.75,    109.42,    0.00) DC     NA
         6TH HIGHEST VALUE IS      0.00004 AT (  565144.62,  4192620.50,    154.84,    0.00) DC     NA
         7TH HIGHEST VALUE IS      0.00004 AT (  565233.75,  4192605.00,    159.72,    0.00) DC     NA
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             8TH HIGHEST VALUE IS        0.00004 AT (  565202.31,  4192629.00,     160.32,     0.00)  DC      NA
             9TH HIGHEST VALUE IS        0.00003 AT (  566093.38,  4191024.75,     114.60,     0.00)  DC      NA
            10TH HIGHEST VALUE IS        0.00003 AT (  564735.81,  4192658.00,     100.28,     0.00)  DC      NA


CH   1ST HIGHEST VALUE IS               0.00011 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
     2ND HIGHEST VALUE IS               0.00011 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
     3RD HIGHEST VALUE IS               0.00011 AT (  565144.62,  4192620.50,     154.84,     0.00)  DC      NA
     4TH HIGHEST VALUE IS               0.00011 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
     5TH HIGHEST VALUE IS               0.00009 AT (  565202.31,  4192629.00,     160.32,     0.00)  DC      NA
     6TH HIGHEST VALUE IS               0.00009 AT (  565233.75,  4192605.00,     159.72,     0.00)  DC      NA
     7TH HIGHEST VALUE IS               0.00009 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
     8TH HIGHEST VALUE IS               0.00005 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
     9TH HIGHEST VALUE IS               0.00005 AT (  564735.81,  4192658.00,     100.28,     0.00)  DC      NA
    10TH HIGHEST VALUE IS               0.00005 AT (  564729.75,  4192662.25,     100.28,     0.00)  DC      NA



                      *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                  ** CONC OF CHRONIC  IN MICROGRAMS/M**3                          **

                                                                                       NETWORK
GROUP ID                    AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


DH   1ST HIGHEST VALUE IS               0.00004 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
     2ND HIGHEST VALUE IS               0.00003 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
     3RD HIGHEST VALUE IS               0.00003 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
     4TH HIGHEST VALUE IS               0.00003 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
     5TH HIGHEST VALUE IS               0.00002 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
     6TH HIGHEST VALUE IS               0.00002 AT (  565144.62,  4192620.50,     154.84,     0.00)  DC      NA
     7TH HIGHEST VALUE IS               0.00002 AT (  565233.75,  4192605.00,     159.72,     0.00)  DC      NA
     8TH HIGHEST VALUE IS               0.00002 AT (  565202.31,  4192629.00,     160.32,     0.00)  DC      NA
     9TH HIGHEST VALUE IS               0.00002 AT (  564735.81,  4192658.00,     100.28,     0.00)  DC      NA
    10TH HIGHEST VALUE IS               0.00002 AT (  564729.75,  4192662.25,     100.28,     0.00)  DC      NA


HES  1ST HIGHEST VALUE IS               0.00122 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
     2ND HIGHEST VALUE IS               0.00092 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
     3RD HIGHEST VALUE IS               0.00090 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
     4TH HIGHEST VALUE IS               0.00064 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
     5TH HIGHEST VALUE IS               0.00064 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
     6TH HIGHEST VALUE IS               0.00027 AT (  566093.38,  4191024.75,     114.60,     0.00)  DC      NA
     7TH HIGHEST VALUE IS               0.00026 AT (  564735.81,  4192658.00,     100.28,     0.00)  DC      NA
     8TH HIGHEST VALUE IS               0.00026 AT (  564729.75,  4192662.25,     100.28,     0.00)  DC      NA
     9TH HIGHEST VALUE IS               0.00025 AT (  565144.62,  4192620.50,     154.84,     0.00)  DC      NA
    10TH HIGHEST VALUE IS               0.00025 AT (  565233.75,  4192605.00,     159.72,     0.00)  DC      NA


HIL  1ST HIGHEST VALUE IS               0.03120 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
     2ND HIGHEST VALUE IS               0.01874 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
     3RD HIGHEST VALUE IS               0.01566 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
     4TH HIGHEST VALUE IS               0.01252 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
     5TH HIGHEST VALUE IS               0.01244 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
     6TH HIGHEST VALUE IS               0.01153 AT (  564591.56,  4192414.75,      83.82,     0.00)  DC      NA
     7TH HIGHEST VALUE IS               0.01134 AT (  564487.38,  4192391.25,      80.16,     0.00)  DC      NA
     8TH HIGHEST VALUE IS               0.00801 AT (  564525.06,  4192613.75,      85.65,     0.00)  DC      NA
     9TH HIGHEST VALUE IS               0.00759 AT (  564729.75,  4192662.25,     100.28,     0.00)  DC      NA
    10TH HIGHEST VALUE IS               0.00754 AT (  564249.94,  4192208.00,      66.75,     0.00)  DC      NA



                      *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                  ** CONC OF CHRONIC  IN MICROGRAMS/M**3                          **

                                                                                       NETWORK
GROUP ID                    AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MUL  1ST HIGHEST VALUE IS               0.00000 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
     2ND HIGHEST VALUE IS               0.00000 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
     3RD HIGHEST VALUE IS               0.00000 AT (  564933.25,  4191275.25,      71.32,     0.00)  DC      NA
     4TH HIGHEST VALUE IS               0.00000 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
     5TH HIGHEST VALUE IS               0.00000 AT (  564487.38,  4192391.25,      80.16,     0.00)  DC      NA
     6TH HIGHEST VALUE IS               0.00000 AT (  564249.94,  4192208.00,      66.75,     0.00)  DC      NA
     7TH HIGHEST VALUE IS               0.00000 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
     8TH HIGHEST VALUE IS               0.00000 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
     9TH HIGHEST VALUE IS               0.00000 AT (  564228.31,  4192049.25,      64.62,     0.00)  DC      NA
    10TH HIGHEST VALUE IS               0.00000 AT (  564591.56,  4192414.75,      83.82,     0.00)  DC      NA
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WEL      1ST HIGHEST VALUE IS       0.00004 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.00003 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.00003 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.00002 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.00002 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.00002 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.00002 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.00001 AT (  564249.94,  4192208.00,     66.75,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.00001 AT (  564525.06,  4192613.75,     85.65,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.00001 AT (  564160.38,  4192207.75,     64.31,      0.00)  DC      NA


NOENGINE 1ST HIGHEST VALUE IS       0.04454 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.03040 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.03012 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.02994 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.02779 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.01955 AT (  565144.62,  4192620.50,    154.84,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.01820 AT (  565202.31,  4192629.00,    160.32,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.01762 AT (  565233.75,  4192605.00,    159.72,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.01704 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.01699 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CHRONIC   IN MICROGRAMS/M**3                        **


                                                                                        NETWORK
GROUP ID                      AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


ENGINE   1ST HIGHEST VALUE IS       0.00186 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.00184 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.00176 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.00144 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.00142 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.00138 AT (  566093.38,  4191024.75,    114.60,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.00110 AT (  566166.56,  4190836.25,    107.59,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.00104 AT (  566063.25,  4190799.75,    101.19,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.00084 AT (  564933.25,  4191275.25,     71.32,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.00082 AT (  565070.19,  4191077.50,     70.41,      0.00)  DC      NA

PRINT    1ST HIGHEST VALUE IS       0.00059 AT (  564933.25,  4191275.25,     71.32,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.00056 AT (  564839.88,  4191259.75,     67.36,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.00049 AT (  564859.75,  4191226.00,     67.67,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.00033 AT (  565070.19,  4191077.50,     70.41,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.00028 AT (  564228.31,  4192049.25,     64.62,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.00022 AT (  564786.81,  4191021.25,     61.26,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.00021 AT (  564079.94,  4192117.50,     61.57,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.00019 AT (  565328.31,  4191032.50,     74.68,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.00018 AT (  564160.38,  4192207.75,     64.31,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.00017 AT (  564249.94,  4192208.00,     66.75,      0.00)  DC      NA

COMBUST  1ST HIGHEST VALUE IS       0.01198 AT (  565144.62,  4192620.50,    154.84,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.01139 AT (  565202.31,  4192629.00,    160.32,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.01102 AT (  565233.75,  4192605.00,    159.72,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.00941 AT (  566729.00,  4190469.25,    136.86,      0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.00854 AT (  567269.62,  4189942.75,    174.65,      0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.00792 AT (  566093.38,  4191024.75,    114.60,      0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.00677 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.00667 AT (  567693.00,  4189595.75,    193.24,      0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.00647 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.00521 AT (  566166.56,  4190836.25,    107.59,      0.00)  DC      NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CHRONIC   IN MICROGRAMS/M**3                        **

                                                                                        NETWORK
GROUP ID                      AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


HAZMAT   1ST HIGHEST VALUE IS       0.00001 AT (  564933.25,  4191275.25,     71.32,      0.00)  DC      NA
         2ND HIGHEST VALUE IS       0.00001 AT (  565070.19,  4191077.50,     70.41,      0.00)  DC      NA
         3RD HIGHEST VALUE IS       0.00001 AT (  564859.75,  4191226.00,     67.67,      0.00)  DC      NA
         4TH HIGHEST VALUE IS       0.00000 AT (  564839.88,  4191259.75,     67.36,      0.00)  DC      NA
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         5TH HIGHEST VALUE IS          0.00000 AT (   565328.31,   4191032.50,     74.68,      0.00)  DC      NA
         6TH HIGHEST VALUE IS          0.00000 AT (   565130.12,   4190916.25,     66.75,      0.00)  DC      NA
         7TH HIGHEST VALUE IS          0.00000 AT (   564228.31,   4192049.25,     64.62,      0.00)  DC      NA
         8TH HIGHEST VALUE IS          0.00000 AT (   564945.62,   4192065.50,    102.72,      0.00)  DC      NA
         9TH HIGHEST VALUE IS          0.00000 AT (   564249.94,   4192208.00,     66.75,      0.00)  DC      NA
        10TH HIGHEST VALUE IS          0.00000 AT (   564160.38,   4192207.75,     64.31,      0.00)  DC      NA

PAINT    1ST HIGHEST VALUE IS          0.00004 AT (   565700.06,   4191711.25,    109.42,      0.00)  DC      NA
         2ND HIGHEST VALUE IS          0.00004 AT (   565700.06,   4191711.25,    108.20,      0.00)  DC      NA
         3RD HIGHEST VALUE IS          0.00004 AT (   564945.62,   4192065.50,    102.72,      0.00)  DC      NA
         4TH HIGHEST VALUE IS          0.00004 AT (   565009.00,   4192130.00,    110.64,      0.00)  DC      NA
         5TH HIGHEST VALUE IS          0.00004 AT (   564933.25,   4191275.25,     71.32,      0.00)  DC      NA
         6TH HIGHEST VALUE IS          0.00003 AT (   564926.69,   4192158.75,    109.42,      0.00)  DC      NA
         7TH HIGHEST VALUE IS          0.00002 AT (   565070.19,   4191077.50,     70.41,      0.00)  DC      NA
         8TH HIGHEST VALUE IS          0.00001 AT (   565328.31,   4191032.50,     74.68,      0.00)  DC      NA
         9TH HIGHEST VALUE IS          0.00001 AT (   564487.38,   4192391.25,     80.16,      0.00)  DC      NA
        10TH HIGHEST VALUE IS          0.00001 AT (   564591.56,   4192414.75,     83.82,      0.00)  DC      NA

ALL_LABS 1ST HIGHEST VALUE IS          0.04207 AT (   564945.62,   4192065.50,    102.72,      0.00)  DC      NA
         2ND HIGHEST VALUE IS          0.02647 AT (   564926.69,   4192158.75,    109.42,      0.00)  DC      NA
         3RD HIGHEST VALUE IS          0.02393 AT (   565009.00,   4192130.00,    110.64,      0.00)  DC      NA
         4TH HIGHEST VALUE IS          0.02352 AT (   565700.06,   4191711.25,    109.42,      0.00)  DC      NA
         5TH HIGHEST VALUE IS          0.02337 AT (   565700.06,   4191711.25,    108.20,      0.00)  DC      NA
         6TH HIGHEST VALUE IS          0.01601 AT (   564487.38,   4192391.25,     80.16,      0.00)  DC      NA
         7TH HIGHEST VALUE IS          0.01587 AT (   564591.56,   4192414.75,     83.82,      0.00)  DC      NA
         8TH HIGHEST VALUE IS          0.01152 AT (   564249.94,   4192208.00,     66.75,      0.00)  DC      NA
         9TH HIGHEST VALUE IS          0.01121 AT (   564525.06,   4192613.75,     85.65,      0.00)  DC      NA
        10TH HIGHEST VALUE IS          0.01116 AT (   564729.75,   4192662.25,    100.28,      0.00)  DC      NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh Receptor Grid - Acute                    ***
*** Model Executed on 02/06/04 at 10:07:32 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Acute.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Acute.LST

   Met File - D:\Beest\UCBerk\10-03\met2\lbl-97a.asc

       Number of sources -       104
Number of source groups -        35
     Number of receptors -      1481



                                *** POINT SOURCE DATA ***


            NUMBER EMISSION RATE                      BASE    STACK   STACK    STACK      STACK   BUILDING EMISSION RATE
   SOURCE   PART.  (GRAMS/SEC)    X         Y         ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
     ID     CATS.             (METERS) (METERS) (METERS) (METERS) (DEG.K)   (M/SEC)  (METERS)            BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8    0   0.42700E-06  564704.4 4191782.8   66.8    31.70   293.15    7.12     0.19       YES
  NWAF9       0   0.59100E-05  564718.8 4191791.2   66.8    29.57   293.15   16.48     0.74       YES
  WHSTK10     0   0.42700E-06  564724.4 4191826.0   66.8     8.60   293.15    7.12     0.34       YES
  MHSTK1      0   0.56100E-06  564794.4 4191795.8   74.8     7.61   293.15   17.25     0.34       YES
  MHSTK2      0   0.56100E-06  564798.6 4191843.0   74.8    10.89   293.15   17.25     0.29       YES
  MHSTK3      0   0.56100E-06  564794.1 4191843.0   74.8    10.89   293.15   17.25     0.48       YES
  MHSTK4      0   0.56100E-06  564800.9 4191787.2   74.8    15.61   293.15   17.25     0.33       YES
  MHSTK6      0   0.56100E-06  564801.3 4191808.2   74.8    10.94   293.15   17.25     0.34       YES
  KHSTK1      0   0.91800E-05  564761.1 4191879.8   72.7    18.45   293.15    1.28     2.76       YES
  KHSTK2      0   0.91800E-05  564759.4 4191891.8   72.7    18.45   293.15    1.28     2.76       YES
  KHSTK3      0   0.91800E-05  564732.4 4191877.5   72.7    18.45   293.15    1.28     2.76       YES
  KHSTK4      0   0.91800E-05  564731.4 4191889.0   72.7    18.45   293.15    1.28     2.76       YES
  BHSTK1      0   0.30000E-05  564678.9 4191889.0   67.4    27.85   293.15    2.78     1.26       YES
  BHSTK2      0   0.30000E-05  564675.0 4191896.8   67.4    29.68   293.15    2.78     1.26       YES
  BHSTK3      0   0.30000E-05  564704.5 4191898.0   67.4    29.68   293.15    2.78     1.26       YES
  BHSTK4      0   0.30000E-05  564707.4 4191887.8   67.4    33.34   293.15    2.78     0.37       YES
  BHSTK5      0   0.30000E-05  564691.6 4191888.0   67.4    33.34   293.15    2.78     0.37       YES
  VLSBSTK1    0   0.87700E-05  564933.6 4191633.2   64.4    27.04   293.15    3.97     1.22       YES
  VLSBSTK2    0   0.87700E-05  564954.0 4191566.5   64.4    27.04   293.15    3.97     1.22       YES
  VLSBSTK3    0   0.87700E-05  565051.3 4191594.8   64.4    27.04   293.15    3.97     1.22       YES
  VLSBSTK4    0   0.87700E-05  565030.6 4191662.2   64.4    27.04   293.15    3.97     1.22       YES
  LSASTK1     0   0.11400E-04  564892.2 4191637.2   64.4    28.31   293.15    5.18     1.22       YES
  LSASTK2     0   0.11400E-04  564875.3 4191632.8   64.4    28.31   293.15    5.18     1.22       YES
  LSASTK3     0   0.11400E-04  564907.6 4191580.5   64.4    28.31   293.15    5.18     1.22       YES
  LSASTK4     0   0.11400E-04  564897.1 4191578.0   64.4    28.31   293.15    5.18     1.22       YES
  LSASTK5     0   0.11400E-04  564908.6 4191576.2   64.4    28.31   293.15    5.18     1.22       YES
  LSASTK6     0   0.11400E-04  564899.1 4191573.5   64.4    28.31   293.15    5.18     1.22       YES
  LSASTK7     0   0.11400E-04  564900.8 4191572.2   64.4    28.31   293.15    5.18     0.30       YES
  LEWHSTK1    0   0.17700E-05  565605.8 4191772.0  106.7    12.80   293.15    3.11     0.36       YES
  LEWHSTK2    0   0.17700E-05  565591.5 4191786.0  106.7    12.80   293.15    3.11     0.36       YES
  LEWHSTK3    0   0.17700E-05  565585.9 4191792.2  106.7    12.80   293.15    3.11     0.36       YES
  LEWHSTK4    0   0.17700E-05  565583.1 4191800.0  106.7    12.80   293.15    3.11     0.36       YES
  LEWHSTK5    0   0.17700E-05  565598.1 4191787.8  106.7    12.80   293.15    3.11     0.36       YES
  LEWHSTK6    0   0.17700E-05  565619.4 4191775.8  106.7    12.80   293.15    3.11     0.36       YES
  LEWHSTK7    0   0.17700E-05  565608.8 4191787.2  106.7    12.80   293.15    3.11     0.36       YES
  LEWHSTK8    0   0.17700E-05  565597.6 4191800.5  106.7    12.80   293.15    3.11     0.30       YES
  LEWHSTK9    0   0.17700E-05  565593.3 4191808.2  106.7    12.80   293.15    3.11     0.36       YES
  LATHSTK1    0   0.75900E-05  565555.1 4191799.2  104.6    42.37   293.15    6.28     0.34       YES
  LATHSTK2    0   0.75900E-05  565561.1 4191812.0  104.6    36.88   293.15    6.28     0.70       YES
  LATHSTK3    0   0.75900E-05  565531.6 4191800.2  104.6    36.88   293.15    6.28     0.48       YES


                                *** POINT SOURCE DATA ***


            NUMBER EMISSION RATE                      BASE    STACK   STACK    STACK      STACK   BUILDING EMISSION RATE
   SOURCE   PART.  (GRAMS/SEC)    X         Y         ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
     ID     CATS.             (METERS) (METERS) (METERS) (METERS) (DEG.K)   (M/SEC)  (METERS)            BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  LATHSTK4    0   0.75900E-05  565515.1 4191799.5  104.6    37.19   293.15    6.28     0.96       YES
  LATHSTK5    0   0.75900E-05  565539.7 4191794.2  104.6    42.37   293.15    6.28     0.70       YES
  LATHSTK6    0   0.75900E-05  565527.3 4191776.0  104.6    38.40   293.15    6.28     0.74       YES
  LATHSTK7    0   0.75900E-05  565544.9 4191781.5  104.6    38.40   293.15    6.28     0.31       YES
  LATHSTK8    0   0.75900E-05  565562.3 4191787.0  104.6    38.40   293.15    6.28     0.70       YES
  TANHSTKA    0   0.65400E-05  565492.1 4191793.2  100.6    39.32   293.15    2.94     1.69       YES
  TANHSTKB    0   0.65400E-05  565496.8 4191794.0  100.6    39.32   293.15    2.94     1.69       YES
  TANHSTKC    0   0.65400E-05  565494.1 4191787.2  100.6    39.32   293.15    2.94     1.69       YES
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TANHSTKD      0   0.65400E-05  565499.1 4191788.2  100.6   39.32  293.15   2.94   1.69    YES
HHSTKA        0   0.71400E-05  565540.8 4191749.5  103.6   20.12  293.15   4.15   1.52    YES
HHSTKB        0   0.71400E-05  565565.6 4191756.8  103.6   20.12  293.15   4.15   1.52    YES
HHSTKC        0   0.71400E-05  565576.8 4191717.8  103.6   20.12  293.15   4.15   1.52    YES
HHSTKD        0   0.71400E-05  565553.2 4191710.5  103.6   20.12  293.15   4.15   1.52    YES
HHSTKE        0   0.71400E-05  565543.4 4191746.5  103.6   20.12  293.15   4.15   0.81    YES
GHSTK1        0   0.86700E-06  565507.1 4191756.0  103.6   16.06  293.15   5.92   0.30    YES
GHSTK2        0   0.86700E-06  565510.6 4191744.8  103.6   16.06  293.15   5.92   0.25    YES
GHSTK3        0   0.86700E-06  565512.4 4191739.0  103.6   16.37  293.15   5.92   0.30    YES
GHSTK4        0   0.86700E-06  565514.7 4191737.8  103.6   15.91  293.15   5.92   0.31    YES
GHSTK5        0   0.86700E-06  565514.9 4191732.2  103.6   16.06  293.15   5.92   0.30    YES
GHSTK6        0   0.86700E-06  565500.2 4191755.2  103.6   16.12  293.15   5.92   0.30    YES
GHSTK7        0   0.86700E-06  565501.1 4191753.0  103.6   16.37  293.15   5.92   0.84    YES
GHSTK8        0   0.86700E-06  565503.7 4191744.2  103.6   16.00  293.15   5.92   0.30    YES
GHSTK9        0   0.86700E-06  565505.2 4191740.2  103.6   16.37  293.15   5.92   0.26    YES
GHSTK10       0   0.86700E-06  565506.9 4191735.2  103.6   16.06  293.15   5.92   0.30    YES
GHSTK11       0   0.86700E-06  565509.7 4191728.2  103.6   16.22  293.15   5.92   0.30    YES
GHSTK12       0   0.86700E-06  565509.0 4191725.5  103.6   16.06  293.15   5.92   0.30    YES
GHSTK13       0   0.86700E-06  565516.9 4191725.8  103.6   15.91  293.15   5.92   0.40    YES
CHSTK1        0   0.38000E-05  565393.9 4192008.8  110.3   26.85  293.15   2.00   1.00    YES
HESSTK1       0   0.41400E-05  565234.6 4191926.2   98.2   15.39  293.15   2.00   1.00    YES
HILSTK1       0   0.20500E-04  564874.6 4191815.0   80.4   14.96  293.15   2.00   1.00    YES
MULSTK1       0   0.26400E-07  564779.7 4191737.8   74.4   17.24  293.15   2.00   1.00    YES
WELSTK1       0   0.15600E-06  564933.7 4191795.2   81.7    5.89  293.15   2.00   1.00    YES
PRINTA        0   0.60400E-05  564584.7 4191553.2   60.0    8.91  293.15   2.70   0.84    YES
PRINTB        0   0.60400E-05  564614.4 4191520.8   60.0    8.91  293.15   2.70   0.84    YES
PRINTC        0   0.60400E-05  564643.1 4191525.5   60.0    8.91  293.15   2.70   0.60    YES
COGEN         0   0.19000E-02  564876.0 4191492.0   71.9   12.77  430.37  10.45   2.28    YES
BOILER#2      0   0.88000E-04  564863.6 4191499.5   71.9    8.80  522.82   7.97   1.52    YES
BOILER#3      0   0.86700E-04  564881.9 4191505.8   71.9    8.80  554.11  10.53   1.52    YES
BOILER#4      0   0.86700E-04  564885.8 4191495.8   71.9    8.80  566.65  12.63   1.52    YES
POURING       0   0.25500E-04  564847.8 4191467.0   70.1   14.94  293.15   4.62   0.56    YES
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*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
NEWLAB_A	0	0.20100E-03	564808.8	4191708.2	70.5	6.10	293.15	3.97	1.00	YES	
NEWLAB_B	0	0.40700E-04	565047.0	4191787.5	77.9	6.10	293.15	3.97	1.00	YES	
NEWLAB_C	0	0.22700E-04	565301.9	4191832.0	90.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_D	0	0.12100E-04	565490.2	4191861.5	106.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_E	0	0.32300E-04	565089.5	4191460.8	73.6	6.10	293.15	3.97	1.00	YES	
NEWLAB_F	0	0.25600E-04	565368.8	4191521.8	86.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_G	0	0.73600E-05	565641.7	4191569.5	102.4	6.10	293.15	3.97	1.00	YES	
NEWSTAN1	0	0.26300E-04	565533.9	4191904.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN2	0	0.26300E-04	565535.5	4191899.0	112.9	41.90	293.15	51.74	0.76	YES	
NEWSTAN3	0	0.26300E-04	565537.2	4191894.5	112.9	41.90	293.15	51.74	0.76	YES	
NEWSTAN4	0	0.26300E-04	565538.8	4191889.8	112.9	41.90	293.15	38.81	0.61	YES	
NEWSTAN5	0	0.26300E-04	565545.4	4191891.0	112.9	41.90	293.15	51.74	0.76	YES	
NEWSTAN6	0	0.26300E-04	565543.6	4191896.2	112.9	41.90	293.15	51.74	0.76	YES	
NEWSTAN7	0	0.26300E-04	565542.0	4191901.0	112.9	41.90	293.15	51.74	0.76	YES	
NEWSTAN8	0	0.26300E-04	565540.3	4191905.8	112.9	41.90	293.15	51.74	0.76	YES	
NEWDAVS1	0	0.25200E-04	565340.6	4191981.0	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS2	0	0.25200E-04	565338.7	4191980.8	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS3	0	0.25200E-04	565329.5	4191986.8	109.2	33.79	293.15	13.62	0.86	YES	
NEWDAVS4	0	0.25200E-04	565328.4	4191986.2	109.2	33.79	293.15	13.62	0.86	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.56100E-06	564821.2	4191842.8	74.8	6.95	0.07	2.42	
PAINT1	0	0.96700E-07	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.96700E-07	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.96700E-07	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.96700E-07	564865.7	4191751.0	77.0	4.57	3.54	4.25	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs

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   ALL       WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
             KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
             LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
             LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
             TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
             GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
             WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
             PAINT4  , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3,
NEWSTAN4,
             NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

   WH        WHSTK1_8, WHSTK10 ,

   NWAF      NWAF9   ,

   MH        MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

   KH        KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

   BH        BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

   VLSB      VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

   LSA       LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

   LEW       LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,

   LAT       LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

   TAN       TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

   HH        HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
     GROUP ID                                     SOURCE IDs


   GH        GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
GHSTK12 ,
             GHSTK13 ,

   CH        CHSTK1  ,

   HES       HESSTK1 ,

   HIL       HILSTK1 ,
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   MUL       MULSTK1 ,

   WEL       WELSTK1 ,

  PRINT      PRINTA  , PRINTB  , PRINTC  ,

  COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

  HAZMAT    POURING ,

  PAINT     PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

 EXISTLAB WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
          WELSTK1 ,

  NEWLABS   NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4,
NEWSTAN5,
          NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
   GROUP ID                                    SOURCE IDs


  ALL_LABS WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
          WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4,
NEWSTAN5,
          NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  EXISTING WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
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          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

          WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,

          PAINT4  ,

  NEWLAB_A  NEWLAB_A,

  NEWLAB_B  NEWLAB_B,

  NEWLAB_C  NEWLAB_C,

  NEWLAB_D  NEWLAB_D,

                                 *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID                                         SOURCE IDs


  NEWLAB_E  NEWLAB_E,

  NEWLAB_F  NEWLAB_F,

  NEWLAB_G  NEWLAB_G,

  DAVISNEW  NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  STAN_NEW  NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8,



                              *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                        ** CONC OF ACUTE   IN MICROGRAMS/M**3                        **
                                                DATE                                                         NETWORK
GROUP ID                       AVERAGE CONC    (YYMMDDHH)            RECEPTOR  (XR, YR, ZELEV, ZFLAG)    OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
ALL      HIGH  1ST HIGH VALUE IS     0.29236  ON 97061905: AT (  564600.00,  4191800.00,     65.00,     0.00) DC     NA
         HIGH  2ND HIGH VALUE IS     0.23021  ON 97062504: AT (  564795.00,  4191930.25,     78.00,     0.00) DC     NA
WH       HIGH  1ST HIGH VALUE IS     0.00198  ON 97080502: AT (  564639.88,  4191852.00,     67.00,     0.00) DC     NA
         HIGH  2ND HIGH VALUE IS     0.00195  ON 97061722: AT (  564639.88,  4191852.00,     67.00,     0.00) DC     NA
NWAF     HIGH  1ST HIGH VALUE IS     0.00231  ON 97101522: AT (  565141.94,  4191999.00,     97.00,     0.00) DC     NA
         HIGH  2ND HIGH VALUE IS     0.00228  ON 97101521: AT (  565141.94,  4191999.00,     97.00,     0.00) DC     NA
MH       HIGH  1ST HIGH VALUE IS     0.01012  ON 97042201: AT (  564842.69,  4191950.00,     83.00,     0.00) DC     NA
         HIGH  2ND HIGH VALUE IS     0.00959  ON 97121206: AT (  564842.69,  4191950.00,     83.00,     0.00) DC     NA
KH       HIGH  1ST HIGH VALUE IS     0.03411  ON 97092803: AT (  564800.00,  4192000.00,     81.00,     0.00) DC     NA
         HIGH  2ND HIGH VALUE IS     0.03236  ON 97082701: AT (  564800.00,  4192000.00,     81.00,     0.00) DC     NA
BH       HIGH  1ST HIGH VALUE IS     0.01085  ON 97071508: AT (  564795.00,  4191930.25,     78.00,     0.00) DC     NA
         HIGH  2ND HIGH VALUE IS     0.01062  ON 97011810: AT (  564795.00,  4191930.25,     78.00,     0.00) DC     NA
VLSB     HIGH  1ST HIGH VALUE IS     0.01473  ON 97101003: AT (  564941.88,  4191967.00,     90.00,     0.00) DC     NA
         HIGH  2ND HIGH VALUE IS     0.01471  ON 97032623: AT (  564941.88,  4191967.00,     90.00,     0.00) DC     NA
LSA      HIGH  1ST HIGH VALUE IS     0.04447  ON 97021521: AT (  564842.69,  4191950.00,     83.00,     0.00) DC     NA
         HIGH  2ND HIGH VALUE IS     0.04135  ON 97010421: AT (  564941.88,  4191967.00,     90.00,     0.00) DC     NA
LEW      HIGH  1ST HIGH VALUE IS     0.05539  ON 97092303: AT (  565592.25,  4191856.75,    116.00,     0.00) DC     NA
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         HIGH  2ND HIGH VALUE IS      0.05486  ON 97061605: AT (  565592.25,  4191856.75,    116.00,    0.00)  DC    NA
LAT      HIGH  1ST HIGH VALUE IS      0.02568  ON 97103018: AT (  565700.00,  4191900.00,    128.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.02411  ON 97101408: AT (  565700.00,  4191900.00,    128.00,    0.00)  DC    NA
TAN      HIGH  1ST HIGH VALUE IS      0.01661  ON 97101502: AT (  565622.62,  4191817.50,    117.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.01586  ON 97101408: AT (  565592.25,  4191856.75,    116.00,    0.00)  DC    NA
HH       HIGH  1ST HIGH VALUE IS      0.06334  ON 97082702: AT (  565654.19,  4191781.25,    118.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.05893  ON 97101523: AT (  565654.19,  4191781.25,    118.00,    0.00)  DC    NA
GH       HIGH  1ST HIGH VALUE IS      0.01017  ON 97051904: AT (  565693.06,  4191753.75,    117.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.00949  ON 97062307: AT (  565654.19,  4191781.25,    118.00,    0.00)  DC    NA



                          *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                      ** CONC OF ACUTE    IN MICROGRAMS/M**3                             **

                                              DATE                                                      NETWORK
GROUP ID                      AVERAGE CONC    (YYMMDDHH)         RECEPTOR  (XR, YR, ZELEV, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
CH       HIGH  1ST HIGH VALUE IS      0.00621  ON 97082003: AT (  565475.12,  4192018.00,    118.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.00613  ON 97122722: AT (  565475.12,  4192018.00,    118.00,    0.00)  DC    NA
HES      HIGH  1ST HIGH VALUE IS      0.00280  ON 97092109: AT (  565241.19,  4192017.75,    102.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.00279  ON 97012811: AT (  565241.19,  4192017.75,    102.00,    0.00)  DC    NA
HIL      HIGH  1ST HIGH VALUE IS      0.05399  ON 97012908: AT (  564941.88,  4191967.00,     90.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.05361  ON 97052623: AT (  564941.88,  4191967.00,     90.00,    0.00)  DC    NA
MUL      HIGH  1ST HIGH VALUE IS      0.00004  ON 97101421: AT (  564842.69,  4191950.00,     83.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.00004  ON 97123123: AT (  564842.69,  4191950.00,     83.00,    0.00)  DC    NA
WEL      HIGH  1ST HIGH VALUE IS      0.00027  ON 97102802: AT (  564941.88,  4191967.00,     90.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.00026  ON 97042004: AT (  564941.88,  4191967.00,     90.00,    0.00)  DC    NA
PRINT    HIGH  1ST HIGH VALUE IS      0.12398  ON 97092307: AT (  564673.81,  4191519.00,     63.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.12086  ON 97101505: AT (  564673.81,  4191519.00,     63.00,    0.00)  DC    NA
COMBUST  HIGH  1ST HIGH VALUE IS      0.13291  ON 97101424: AT (  565600.00,  4192200.00,    158.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.13289  ON 97092804: AT (  565600.00,  4192200.00,    158.00,    0.00)  DC    NA
HAZMAT   HIGH  1ST HIGH VALUE IS      0.03281  ON 97070102: AT (  564976.62,  4191271.75,     73.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.03261  ON 97101304: AT (  564976.62,  4191271.75,     73.00,    0.00)  DC    NA
PAINT    HIGH  1ST HIGH VALUE IS      0.00051  ON 97052803: AT (  564842.69,  4191950.00,     83.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.00049  ON 97051802: AT (  564842.69,  4191950.00,     83.00,    0.00)  DC    NA
EXISTLAB HIGH  1ST HIGH VALUE IS      0.07874  ON 97082702: AT (  565654.19,  4191781.25,    118.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.07372  ON 97101523: AT (  565654.19,  4191781.25,    118.00,    0.00)  DC    NA
NEWLABS  HIGH  1ST HIGH VALUE IS      0.29235  ON 97061905: AT (  564600.00,  4191800.00,     65.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.22271  ON 97101422: AT (  564748.50,  4191916.75,     75.00,    0.00)  DC    NA
ALL_LABS HIGH  1ST HIGH VALUE IS      0.28575  ON 97061905: AT (  564600.00,  4191800.00,     65.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.22576  ON 97062504: AT (  564795.00,  4191930.25,     78.00,    0.00)  DC    NA
EXISTING HIGH  1ST HIGH VALUE IS      0.15335  ON 97120207: AT (  565900.00,  4191900.00,    161.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.15327  ON 97052506: AT (  565900.00,  4191900.00,    161.00,    0.00)  DC    NA



                          *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                      ** CONC OF ACUTE    IN MICROGRAMS/M**3                             **

                                              DATE                                                      NETWORK
GROUP ID                      AVERAGE CONC    (YYMMDDHH)         RECEPTOR  (XR, YR, ZELEV, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
NEWLAB_A HIGH  1ST HIGH VALUE IS      0.28557  ON 97061905: AT (  564600.00,  4191800.00,     65.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.22271  ON 97101422: AT (  564748.50,  4191916.75,     75.00,    0.00)  DC    NA
NEWLAB_B HIGH  1ST HIGH VALUE IS      0.05898  ON 97032623: AT (  564991.81,  4191975.00,     93.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.05886  ON 97101003: AT (  564991.81,  4191975.00,     93.00,    0.00)  DC    NA
NEWLAB_C HIGH  1ST HIGH VALUE IS      0.01761  ON 97061905: AT (  564991.81,  4191975.00,     93.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.01423  ON 97041503: AT (  565289.25,  4192025.50,    107.00,    0.00)  DC    NA
NEWLAB_D HIGH  1ST HIGH VALUE IS      0.00992  ON 97042219: AT (  565500.00,  4192000.00,    121.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.00991  ON 97011911: AT (  565500.00,  4192000.00,    121.00,    0.00)  DC    NA
NEWLAB_E HIGH  1ST HIGH VALUE IS      0.13108  ON 97091923: AT (  565200.00,  4191300.00,     80.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.12417  ON 97092001: AT (  565200.00,  4191300.00,     80.00,    0.00)  DC    NA
NEWLAB_F HIGH  1ST HIGH VALUE IS      0.06453  ON 97031906: AT (  565577.06,  4191362.50,     93.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.06438  ON 97060221: AT (  565577.06,  4191362.50,     93.00,    0.00)  DC    NA
NEWLAB_G HIGH  1ST HIGH VALUE IS      0.00456  ON 97051407: AT (  565804.06,  4191652.50,    116.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.00456  ON 97051920: AT (  565804.06,  4191652.50,    116.00,    0.00)  DC    NA
DAVISNEW HIGH  1ST HIGH VALUE IS      0.05898  ON 97101503: AT (  565700.00,  4192000.00,    145.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.05668  ON 97061123: AT (  565600.00,  4192100.00,    140.00,    0.00)  DC    NA
STAN_NEW HIGH  1ST HIGH VALUE IS      0.08136  ON 97081703: AT (  565700.00,  4192100.00,    165.00,    0.00)  DC    NA
         HIGH  2ND HIGH VALUE IS      0.06992  ON 97051222: AT (  565700.00,  4192100.00,    165.00,    0.00)  DC    NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh Sensitive Receptors Acute              ***
*** Model Executed on 02/06/04 at 10:27:08 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Acute-Sensitive.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Acute-Sensitive.LST

   Met File - D:\Beest\UCBerk\10-03\lbl-97a.asc

       Number of sources -        104
 Number of source groups -         35
     Number of receptors -        259




                               *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK      STACK    BUILDING EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)     X        Y        ELEV.   HEIGHT  TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
     ID      CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8    0   0.42700E-06  564704.4 4191782.8   66.8    31.70   293.15    7.12     0.19      YES
  NWAF9       0   0.59100E-05  564718.8 4191791.2   66.8    29.57   293.15   16.48     0.74      YES
  WHSTK10     0   0.42700E-06  564724.4 4191826.0   66.8     8.60   293.15    7.12     0.34      YES
  MHSTK1      0   0.56100E-06  564794.4 4191795.8   74.8     7.61   293.15   17.25     0.34      YES
  MHSTK2      0   0.56100E-06  564798.6 4191843.0   74.8    10.89   293.15   17.25     0.29      YES
  MHSTK3      0   0.56100E-06  564794.1 4191843.0   74.8    10.89   293.15   17.25     0.48      YES
  MHSTK4      0   0.56100E-06  564800.9 4191787.2   74.8    15.61   293.15   17.25     0.33      YES
  MHSTK6      0   0.56100E-06  564801.3 4191808.2   74.8    10.94   293.15   17.25     0.34      YES
  KHSTK1      0   0.91800E-05  564761.1 4191879.8   72.7    18.45   293.15    1.28     2.76      YES
  KHSTK2      0   0.91800E-05  564759.4 4191891.8   72.7    18.45   293.15    1.28     2.76      YES
  KHSTK3      0   0.91800E-05  564732.4 4191877.5   72.7    18.45   293.15    1.28     2.76      YES
  KHSTK4      0   0.91800E-05  564731.4 4191889.0   72.7    18.45   293.15    1.28     2.76      YES
  BHSTK1      0   0.30000E-05  564678.9 4191889.0   67.4    27.85   293.15    2.78     1.26      YES
  BHSTK2      0   0.30000E-05  564675.0 4191896.8   67.4    29.68   293.15    2.78     1.26      YES
  BHSTK3      0   0.30000E-05  564704.5 4191898.0   67.4    29.68   293.15    2.78     1.26      YES
  BHSTK4      0   0.30000E-05  564707.4 4191887.8   67.4    33.34   293.15    2.78     0.37      YES
  BHSTK5      0   0.30000E-05  564691.6 4191888.0   67.4    33.34   293.15    2.78     0.37      YES
  VLSBSTK1    0   0.87700E-05  564933.6 4191633.2   64.4    27.04   293.15    3.97     1.22      YES
  VLSBSTK2    0   0.87700E-05  564954.0 4191566.5   64.4    27.04   293.15    3.97     1.22      YES
  VLSBSTK3    0   0.87700E-05  565051.3 4191594.8   64.4    27.04   293.15    3.97     1.22      YES
  VLSBSTK4    0   0.87700E-05  565030.6 4191662.2   64.4    27.04   293.15    3.97     1.22      YES
  LSASTK1     0   0.11400E-04  564892.2 4191637.2   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK2     0   0.11400E-04  564875.9 4191632.8   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK3     0   0.11400E-04  564907.6 4191580.5   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK4     0   0.11400E-04  564897.1 4191578.0   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK5     0   0.11400E-04  564908.6 4191576.2   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK6     0   0.11400E-04  564899.1 4191573.5   64.4    28.31   293.15    5.18     1.22      YES
  LSASTK7     0   0.11400E-04  564900.8 4191572.2   64.4    28.31   293.15    5.18     0.30      YES
  LEWHSTK1    0   0.17700E-05  565605.8 4191772.0  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK2    0   0.17700E-05  565591.5 4191786.0  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK3    0   0.17700E-05  565585.9 4191792.2  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK4    0   0.17700E-05  565583.1 4191800.0  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK5    0   0.17700E-05  565598.1 4191787.8  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK6    0   0.17700E-05  565619.4 4191775.8  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK7    0   0.17700E-05  565608.8 4191787.2  106.7    12.80   293.15    3.11     0.36      YES
  LEWHSTK8    0   0.17700E-05  565597.6 4191800.5  106.7    12.80   293.15    3.11     0.30      YES
  LEWHSTK9    0   0.17700E-05  565593.3 4191808.2  106.7    12.80   293.15    3.11     0.36      YES
  LATHSTK1    0   0.75900E-05  565555.1 4191799.2  104.6    42.37   293.15    6.28     0.34      YES
  LATHSTK2    0   0.75900E-05  565561.1 4191812.0  104.6    36.88   293.15    6.28     0.70      YES
  LATHSTK3    0   0.75900E-05  565531.6 4191800.2  104.6    36.88   293.15    6.28     0.48      YES


                               *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK      STACK    BUILDING EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)     X        Y        ELEV.   HEIGHT  TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
     ID      CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


  LATHSTK4    0   0.75900E-05  565515.1 4191799.5  104.6    37.19   293.15    6.28     0.96      YES
  LATHSTK5    0   0.75900E-05  565539.7 4191794.2  104.6    42.37   293.15    6.28     0.70      YES
  LATHSTK6    0   0.75900E-05  565527.3 4191776.0  104.6    38.40   293.15    6.28     0.74      YES
  LATHSTK7    0   0.75900E-05  565544.9 4191781.5  104.6    38.40   293.15    6.28     0.31      YES
  LATHSTK8    0   0.75900E-05  565562.3 4191787.0  104.6    38.40   293.15    6.28     0.70      YES
  TANHSTKA    0   0.65400E-05  565492.1 4191792.8  100.6    39.32   293.15    2.94     1.69      YES
  TANHSTKB    0   0.65400E-05  565496.8 4191794.0  100.6    39.32   293.15    2.94     1.69      YES
  TANHSTKC    0   0.65400E-05  565494.1 4191787.2  100.6    39.32   293.15    2.94     1.69      YES
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    TANHSTKD       0   0.65400E-05  565499.1 4191788.2   100.6    39.32   293.15     2.94    1.69      YES
    HHSTKA         0   0.71400E-05  565540.8 4191749.5   103.6    20.12   293.15     4.15    1.52      YES
    HHSTKB         0   0.71400E-05  565565.6 4191756.8   103.6    20.12   293.15     4.15    1.52      YES
    HHSTKC         0   0.71400E-05  565576.8 4191717.8   103.6    20.12   293.15     4.15    1.52      YES
    HHSTKD         0   0.71400E-05  565553.2 4191710.5   103.6    20.12   293.15     4.15    1.52      YES
    HHSTKE         0   0.71400E-05  565543.4 4191746.5   103.6    20.12   293.15     4.15    0.81      YES
    GHSTK1         0   0.86700E-06  565507.1 4191756.0   103.6    16.06   293.15     5.92    0.30      YES
    GHSTK2         0   0.86700E-06  565510.6 4191744.8   103.6    16.06   293.15     5.92    0.25      YES
    GHSTK3         0   0.86700E-06  565512.4 4191739.0   103.6    16.37   293.15     5.92    0.30      YES
    GHSTK4         0   0.86700E-06  565514.7 4191737.8   103.6    15.91   293.15     5.92    0.31      YES
    GHSTK5         0   0.86700E-06  565514.9 4191732.2   103.6    16.06   293.15     5.92    0.30      YES
    GHSTK6         0   0.86700E-06  565500.2 4191755.2   103.6    16.12   293.15     5.92    0.30      YES
    GHSTK7         0   0.86700E-06  565501.1 4191753.0   103.6    16.37   293.15     5.92    0.84      YES
    GHSTK8         0   0.86700E-06  565503.7 4191744.2   103.6    16.00   293.15     5.92    0.30      YES
    GHSTK9         0   0.86700E-06  565505.2 4191740.2   103.6    16.37   293.15     5.92    0.26      YES
    GHSTK10        0   0.86700E-06  565506.9 4191735.2   103.6    16.06   293.15     5.92    0.30      YES
    GHSTK11        0   0.86700E-06  565509.7 4191728.2   103.6    16.22   293.15     5.92    0.30      YES
    GHSTK12        0   0.86700E-06  565509.0 4191725.5   103.6    16.06   293.15     5.92    0.30      YES
    GHSTK13        0   0.86700E-06  565516.9 4191725.8   103.6    15.91   293.15     5.92    0.40      YES
    CHSTK1         0   0.38000E-05  565393.9 4192008.8   110.3    26.85   293.15     2.00    1.00      YES
    HESSTK1        0   0.41400E-05  565234.6 4191926.2    98.2    15.39   293.15     2.00    1.00      YES
    HILSTK1        0   0.20500E-04  564874.6 4191815.0    80.4    14.96   293.15     2.00    1.00      YES
    MULSTK1        0   0.26400E-07  564779.7 4191737.8    74.4    17.24   293.15     2.00    1.00      YES
    WELSTK1        0   0.15600E-06  564933.7 4191795.2    81.7     5.89   293.15     2.00    1.00      YES
    PRINTA         0   0.60400E-05  564584.7 4191553.2    60.0     8.91   293.15     2.70    0.84      YES
    PRINTB         0   0.60400E-05  564614.4 4191520.8    60.0     8.91   293.15     2.70    0.84      YES
    PRINTC         0   0.60400E-05  564643.1 4191525.5    60.0     8.91   293.15     2.70    0.60      YES
    COGEN          0   0.19000E-02  564876.0 4191492.0    71.9    12.77   430.37    10.45    2.28      YES
    BOILER#2       0   0.88000E-04  564863.6 4191499.5    71.9     8.80   522.82     7.97    1.52      YES
    BOILER#3       0   0.86700E-04  564881.9 4191505.8    71.9     8.80   554.11    10.53    1.52      YES
    BOILER#4       0   0.86700E-04  564885.8 4191495.8    71.9     8.80   566.65    12.63    1.52      YES
    POURING        0   0.25500E-04  564847.8 4191467.0    70.1    14.94   293.15     4.62    0.56      YES


                              *** POINT SOURCE DATA ***


                  NUMBER EMISSION RATE                  BASE     STACK    STACK     STACK    STACK    BUILDING EMISSION RATE
       SOURCE     PART.  (GRAMS/SEC)    X         Y      ELEV.   HEIGHT   TEMP.   EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
        ID        CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
    - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


    NEWLAB_A       0   0.20100E-03  564808.8 4191708.2    70.5     6.10   293.15     3.97    1.00      YES
    NEWLAB_B       0   0.40700E-04  565047.0 4191787.5    77.9     6.10   293.15     3.97    1.00      YES
    NEWLAB_C       0   0.22700E-04  565301.9 4191832.0    90.7     6.10   293.15     3.97    1.00      YES
    NEWLAB_D       0   0.12100E-04  565490.2 4191861.5   106.7     6.10   293.15     3.97    1.00      YES
    NEWLAB_E       0   0.32300E-04  565089.5 4191460.8    73.6     6.10   293.15     3.97    1.00      YES
    NEWLAB_F       0   0.25600E-04  565368.8 4191521.8    86.7     6.10   293.15     3.97    1.00      YES
    NEWLAB_G       0   0.73600E-05  565641.7 4191569.5   102.4     6.10   293.15     3.97    1.00      YES
    NEWSTAN1       0   0.26300E-04  565533.9 4191904.0   112.9    41.90   293.15    17.25    1.32      YES
    NEWSTAN2       0   0.26300E-04  565535.5 4191899.0   112.9    41.90   293.15    17.25    1.32      YES
    NEWSTAN3       0   0.26300E-04  565537.2 4191894.5   112.9    41.90   293.15    17.25    1.32      YES
    NEWSTAN4       0   0.26300E-04  565538.8 4191889.8   112.9    41.90   293.15    17.25    1.32      YES
    NEWSTAN5       0   0.26300E-04  565545.4 4191891.0   112.9    41.90   293.15    17.25    1.32      YES
    NEWSTAN6       0   0.26300E-04  565543.6 4191896.2   112.9    41.90   293.15    17.25    1.32      YES
    NEWSTAN7       0   0.26300E-04  565542.0 4191901.0   112.9    41.90   293.15    17.25    1.32      YES
    NEWSTAN8       0   0.26300E-04  565540.3 4191905.8   112.9    41.90   293.15    17.25    1.32      YES
    NEWDAVS1       0   0.25200E-04  565340.6 4191981.0   108.9    33.79   293.15    12.66    1.63      YES
    NEWDAVS2       0   0.25200E-04  565338.7 4191980.8   108.9    33.79   293.15    12.66    1.63      YES
    NEWDAVS3       0   0.25200E-04  565329.5 4191986.8   109.2    33.79   293.15    13.62    0.86      YES
    NEWDAVS4       0   0.25200E-04  565328.4 4191986.2   109.2    33.79   293.15    13.62    0.86      YES


                              *** VOLUME SOURCE DATA ***


                  NUMBER EMISSION RATE                  BASE     RELEASE   INIT.    INIT.   EMISSION RATE
       SOURCE     PART.  (GRAMS/SEC)    X         Y      ELEV.   HEIGHT     SY       SZ      SCALAR VARY
        ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)      BY
    - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


    MHSTK5         0   0.56100E-06  564821.2 4191842.8    74.8     6.95     0.07     2.42
    PAINT1         0   0.96700E-07  564917.1 4191432.5    72.0     4.57     3.54     4.25
    PAINT2         0   0.96700E-07  565322.7 4191834.8    96.0     4.57     3.54     4.25
    PAINT3         0   0.96700E-07  565541.5 4191525.8    97.0     4.57     3.54     4.25
    PAINT4         0   0.96700E-07  564865.7 4191751.0    77.0     4.57     3.54     4.25


                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

    GROUP ID                                    SOURCE IDs
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   ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
            GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
            WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
            PAINT4  , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3,
NEWSTAN4,
            NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

   WH       WHSTK1_8, WHSTK10 ,

   NWAF     NWAF9   ,

   MH       MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

   KH       KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

   BH       BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

   VLSB     VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

   LSA      LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

   LEW      LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,

   LAT      LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

   TAN      TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

   HH       HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
     GROUP ID                                     SOURCE IDs


   GH       GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
GHSTK12 ,
            GHSTK13 ,

   CH       CHSTK1  ,

   HES      HESSTK1 ,

   HIL      HILSTK1 ,
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    MUL       MULSTK1 ,

    WEL       WELSTK1 ,

   PRINT      PRINTA  , PRINTB  , PRINTC  ,

   COMBUST   COGEN    , BOILER#2, BOILER#3, BOILER#4,

   HAZMAT     POURING ,


   PAINT      PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

  EXISTLAB  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
            GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
            WELSTK1 ,

   NEWLABS  NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4,
NEWSTAN5,
            NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
   GROUP ID                                    SOURCE IDs


  ALL_LABS  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
            GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
            WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4,
NEWSTAN5,
            NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  EXISTING  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
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          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

          WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,

          PAINT4  ,

  NEWLAB_A  NEWLAB_A,

  NEWLAB_B  NEWLAB_B,

  NEWLAB_C  NEWLAB_C,

  NEWLAB_D  NEWLAB_D,

                            *** SOURCE IDs DEFINING SOURCE GROUPS ***
  GROUP ID                                    SOURCE IDs


  NEWLAB_E  NEWLAB_E,

  NEWLAB_F  NEWLAB_F,

  NEWLAB_G  NEWLAB_G,

  DAVISNEW  NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  STAN_NEW  NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8,



                        *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                  ** CONC OF ACUTE    IN MICROGRAMS/M**3                        **
                                            DATE                                               NETWORK
GROUP ID                     AVERAGE CONC   (YYMMDDHH)        RECEPTOR  (XR, YR, ZELEV, ZFLAG)     OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
ALL    HIGH  1ST HIGH VALUE IS     0.14832  ON 97012908: AT (  565233.75,  4192605.00,    159.72,    0.00) DC    NA
       HIGH  2ND HIGH VALUE IS     0.14786  ON 97110202: AT (  565233.75,  4192605.00,    159.72,    0.00) DC    NA
WH     HIGH  1ST HIGH VALUE IS     0.00069  ON 97081224: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
       HIGH  2ND HIGH VALUE IS     0.00066  ON 97081704: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
NWAF   HIGH  1ST HIGH VALUE IS     0.00231  ON 97092804: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
       HIGH  2ND HIGH VALUE IS     0.00153  ON 97082302: AT (  564926.69,  4192158.75,    109.42,    0.00) DC    NA
MH     HIGH  1ST HIGH VALUE IS     0.00361  ON 97090823: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
       HIGH  2ND HIGH VALUE IS     0.00357  ON 97092803: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
KH     HIGH  1ST HIGH VALUE IS     0.01489  ON 97020707: AT (  564926.69,  4192158.75,    109.42,    0.00) DC    NA
       HIGH  2ND HIGH VALUE IS     0.01337  ON 97032523: AT (  564591.56,  4192414.75,     83.82,    0.00) DC    NA
BH     HIGH  1ST HIGH VALUE IS     0.00458  ON 97101408: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
       HIGH  2ND HIGH VALUE IS     0.00453  ON 97103018: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
VLSB   HIGH  1ST HIGH VALUE IS     0.01098  ON 97050122: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
       HIGH  2ND HIGH VALUE IS     0.01053  ON 97101005: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
LSA    HIGH  1ST HIGH VALUE IS     0.03413  ON 97050521: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
       HIGH  2ND HIGH VALUE IS     0.03369  ON 97031521: AT (  564945.62,  4192065.50,    102.72,    0.00) DC    NA
LEW    HIGH  1ST HIGH VALUE IS     0.00724  ON 97060505: AT (  565700.06,  4191711.25,    109.42,    0.00) DC    NA
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     HIGH  2ND HIGH VALUE IS     0.00643  ON 97071221: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
LAT  HIGH  1ST HIGH VALUE IS     0.01186  ON 97101709: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
     HIGH  2ND HIGH VALUE IS     0.01184  ON 97031909: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
TAN  HIGH  1ST HIGH VALUE IS     0.00854  ON 97082407: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
     HIGH  2ND HIGH VALUE IS     0.00845  ON 97020107: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
HH   HIGH  1ST HIGH VALUE IS     0.01308  ON 97101507: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
     HIGH  2ND HIGH VALUE IS     0.01305  ON 97101603: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
GH   HIGH  1ST HIGH VALUE IS     0.00830  ON 97100923: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
     HIGH  2ND HIGH VALUE IS     0.00732  ON 97030609: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA



                          *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                     ** CONC OF ACUTE    IN MICROGRAMS/M**3                           **

                                            DATE                                                    NETWORK
GROUP ID                   AVERAGE CONC    (YYMMDDHH)        RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
CH       HIGH  1ST HIGH VALUE IS     0.00098  ON 97091705: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.00096  ON 97092404: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
HES      HIGH  1ST HIGH VALUE IS     0.00119  ON 97010409: AT (  565009.00,  4192130.00,    110.64,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.00119  ON 97042020: AT (  565009.00,  4192130.00,    110.64,    0.00) DC      NA
HIL      HIGH  1ST HIGH VALUE IS     0.03911  ON 97032506: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.03783  ON 97042924: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
MUL      HIGH  1ST HIGH VALUE IS     0.00003  ON 97122705: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.00002  ON 97071504: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
WEL      HIGH  1ST HIGH VALUE IS     0.00015  ON 97122009: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.00010  ON 97020520: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
PRINT    HIGH  1ST HIGH VALUE IS     0.02614  ON 97082102: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.02611  ON 97032922: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
COMBUST  HIGH  1ST HIGH VALUE IS     0.11257  ON 97092424: AT (  565233.75,  4192605.00,    159.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.11253  ON 97051804: AT (  565233.75,  4192605.00,    159.72,    0.00) DC      NA
HAZMAT   HIGH  1ST HIGH VALUE IS     0.03413  ON 97090422: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.03258  ON 97020104: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
PAINT    HIGH  1ST HIGH VALUE IS     0.00043  ON 97122005: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.00042  ON 97102603: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
EXISTLAB HIGH  1ST HIGH VALUE IS     0.04943  ON 97042924: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.04896  ON 97032506: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
NEWLABS  HIGH  1ST HIGH VALUE IS     0.13282  ON 97092401: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.12963  ON 97012904: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
ALL_LABS HIGH  1ST HIGH VALUE IS     0.14290  ON 97092401: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.13877  ON 97012904: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
EXISTING HIGH  1ST HIGH VALUE IS     0.12625  ON 97101402: AT (  565233.75,  4192605.00,    159.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.12586  ON 97071504: AT (  565233.75,  4192605.00,    159.72,    0.00) DC      NA



                          *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                     ** CONC OF ACUTE    IN MICROGRAMS/M**3                           **

                                            DATE                                                    NETWORK
GROUP ID                   AVERAGE CONC    (YYMMDDHH)        RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
NEWLAB_A HIGH  1ST HIGH VALUE IS     0.13282  ON 97092401: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.12963  ON 97012904: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
NEWLAB_B HIGH  1ST HIGH VALUE IS     0.03481  ON 97071507: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.03220  ON 97102908: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
NEWLAB_C HIGH  1ST HIGH VALUE IS     0.01154  ON 97090506: AT (  564945.62,  4192065.50,    102.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.00992  ON 97030910: AT (  565700.06,  4191711.25,    108.20,    0.00) DC      NA
NEWLAB_D HIGH  1ST HIGH VALUE IS     0.00534  ON 97090506: AT (  565009.00,  4192130.00,    110.64,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.00433  ON 97090506: AT (  564926.69,  4192158.75,    109.42,    0.00) DC      NA
NEWLAB_E HIGH  1ST HIGH VALUE IS     0.02259  ON 97012304: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.02195  ON 97110301: AT (  564933.25,  4191275.25,     71.32,    0.00) DC      NA
NEWLAB_F HIGH  1ST HIGH VALUE IS     0.01130  ON 97010708: AT (  566166.56,  4190836.25,    107.59,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.01070  ON 97102707: AT (  566063.25,  4190799.75,    101.19,    0.00) DC      NA
NEWLAB_G HIGH  1ST HIGH VALUE IS     0.00404  ON 97012311: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.00404  ON 97021418: AT (  565700.06,  4191711.25,    109.42,    0.00) DC      NA
DAVISNEW HIGH  1ST HIGH VALUE IS     0.03029  ON 97032623: AT (  565144.62,  4192620.50,    154.84,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.03017  ON 97013121: AT (  565144.62,  4192620.50,    154.84,    0.00) DC      NA
STAN_NEW HIGH  1ST HIGH VALUE IS     0.04584  ON 97082523: AT (  565233.75,  4192605.00,    159.72,    0.00) DC      NA
         HIGH  2ND HIGH VALUE IS     0.04581  ON 97101002: AT (  565233.75,  4192605.00,    159.72,    0.00) DC      NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh                                    ***
*** Model Executed on 02/06/04 at 10:30:56 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\Lrdp-Can.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\Lrdp-Can.LST

   Met File - D:\Beest\UCBerk\10-03\met2\lbl-97a.asc

      Number of sources -       142
Number of source groups -        37
    Number of receptors -      1431


                            *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                  BASE   STACK  STACK    STACK     STACK    BUILDING EMISSION RATE
     SOURCE  PART.  (GRAMS/SEC)    X        Y      ELEV.  HEIGHT TEMP.  EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
       ID    CATS.              (METERS) (METERS) (METERS)(METERS)(DEG.K) (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   WHSTK1_8    0   0.44700E-04  564704.4 4191782.8   66.8   31.70  293.15    7.12     0.19     YES
   NWAF9       0   0.60100E-03  564718.8 4191791.2   66.8   29.57  293.15   16.48     0.74     YES
   WHSTK10     0   0.44700E-04  564724.4 4191826.0   66.8    8.60  293.15    7.12     0.34     YES
   MHSTK1      0   0.24000E-03  564794.4 4191795.8   74.8    7.61  293.15   17.25     0.34     YES
   MHSTK2      0   0.24000E-03  564798.6 4191843.0   74.8   10.89  293.15   17.25     0.29     YES
   MHSTK3      0   0.24000E-03  564794.1 4191843.0   74.8   10.89  293.15   17.25     0.48     YES
   MHSTK4      0   0.24000E-03  564800.9 4191787.2   74.8   15.61  293.15   17.25     0.33     YES
   MHSTK6      0   0.24000E-03  564801.3 4191808.2   74.8   10.94  293.15   17.25     0.34     YES
   KHSTK1      0   0.33000E-02  564761.1 4191879.8   72.7   18.45  293.15    1.28     2.76     YES
   KHSTK2      0   0.33000E-02  564759.4 4191891.8   72.7   18.45  293.15    1.28     2.76     YES
   KHSTK3      0   0.33000E-02  564732.4 4191877.5   72.7   18.45  293.15    1.28     2.76     YES
   KHSTK4      0   0.33000E-02  564731.4 4191889.0   72.7   18.45  293.15    1.28     2.76     YES
   BHSTK1      0   0.45600E-03  564678.9 4191889.0   67.4   27.85  293.15    2.78     1.26     YES
   BHSTK2      0   0.45600E-03  564675.0 4191896.8   67.4   29.68  293.15    2.78     1.26     YES
   BHSTK3      0   0.45600E-03  564704.5 4191898.0   67.4   29.68  293.15    2.78     1.26     YES
   BHSTK4      0   0.45600E-03  564707.4 4191887.8   67.4   33.34  293.15    2.78     0.37     YES
   BHSTK5      0   0.45600E-03  564691.6 4191888.0   67.4   33.34  293.15    2.78     0.37     YES
   VLSBSTK1    0   0.77100E-03  564933.6 4191633.2   64.4   27.04  293.15    3.97     1.22     YES
   VLSBSTK2    0   0.77100E-03  564954.0 4191566.5   64.4   27.04  293.15    3.97     1.22     YES
   VLSBSTK3    0   0.77100E-03  565051.3 4191594.8   64.4   27.04  293.15    3.97     1.22     YES
   VLSBSTK4    0   0.77100E-03  565030.6 4191662.2   64.4   27.04  293.15    3.97     1.22     YES
   LSASTK1     0   0.16600E-02  564892.2 4191637.2   64.4   28.31  293.15    5.18     1.22     YES
   LSASTK2     0   0.16600E-02  564875.9 4191632.8   64.4   28.31  293.15    5.18     1.22     YES
   LSASTK3     0   0.16600E-02  564907.6 4191580.5   64.4   28.31  293.15    5.18     1.22     YES
   LSASTK4     0   0.16600E-02  564897.1 4191578.0   64.4   28.31  293.15    5.18     1.22     YES
   LSASTK5     0   0.16600E-02  564908.6 4191576.2   64.4   28.31  293.15    5.18     1.22     YES
   LSASTK6     0   0.16600E-02  564899.1 4191573.5   64.4   28.31  293.15    5.18     1.22     YES
   LSASTK7     0   0.16600E-02  564900.8 4191572.2   64.4   28.31  293.15    5.18     0.30     YES
   LEWHSTK1    0   0.63700E-03  565605.8 4191772.0  106.7   12.80  293.15    3.11     0.36     YES
   LEWHSTK2    0   0.63700E-03  565591.5 4191786.0  106.7   12.80  293.15    3.11     0.36     YES
   LEWHSTK3    0   0.63700E-03  565585.9 4191792.2  106.7   12.80  293.15    3.11     0.36     YES
   LEWHSTK4    0   0.63700E-03  565583.1 4191800.0  106.7   12.80  293.15    3.11     0.36     YES
   LEWHSTK5    0   0.63700E-03  565598.1 4191787.8  106.7   12.80  293.15    3.11     0.36     YES
   LEWHSTK6    0   0.63700E-03  565619.4 4191775.8  106.7   12.80  293.15    3.11     0.36     YES
   LEWHSTK7    0   0.63700E-03  565608.8 4191787.2  106.7   12.80  293.15    3.11     0.36     YES
   LEWHSTK8    0   0.63700E-03  565597.6 4191800.5  106.7   12.80  293.15    3.11     0.30     YES
   LEWHSTK9    0   0.63700E-03  565593.3 4191808.2  106.7   12.80  293.15    3.11     0.36     YES
   LATHSTK1    0   0.27200E-02  565555.1 4191799.2  104.6   42.37  293.15    6.28     0.34     YES
   LATHSTK2    0   0.27200E-02  565561.1 4191812.0  104.6   36.88  293.15    6.28     0.70     YES
   LATHSTK3    0   0.27200E-02  565531.6 4191800.2  104.6   36.88  293.15    6.28     0.48     YES


                            *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                  BASE   STACK  STACK    STACK     STACK    BUILDING EMISSION RATE
     SOURCE  PART.  (GRAMS/SEC)    X        Y      ELEV.  HEIGHT TEMP.  EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
       ID    CATS.              (METERS) (METERS) (METERS)(METERS)(DEG.K) (M/SEC)  (METERS)                BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   LATHSTK4    0   0.27200E-02  565515.1 4191799.5  104.6   37.19  293.15    6.28     0.96     YES
   LATHSTK5    0   0.27200E-02  565539.7 4191794.2  104.6   42.37  293.15    6.28     0.70     YES
   LATHSTK6    0   0.27200E-02  565527.3 4191776.0  104.6   38.40  293.15    6.28     0.74     YES
   LATHSTK7    0   0.27200E-02  565544.9 4191781.5  104.6   38.40  293.15    6.28     0.31     YES
   LATHSTK8    0   0.27200E-02  565562.3 4191787.0  104.6   38.40  293.15    6.28     0.70     YES
   TANHSTKA    0   0.23500E-02  565492.1 4191793.2  100.6   39.32  293.15    2.94     1.69     YES
   TANHSTKB    0   0.23500E-02  565496.8 4191794.0  100.6   39.32  293.15    2.94     1.69     YES
   TANHSTKC    0   0.23500E-02  565494.1 4191787.2  100.6   39.32  293.15    2.94     1.69     YES
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TANHSTKD        0   0.23500E-02  565499.1 4191788.2  100.6   39.32  293.15    2.94    1.69     YES
HHSTKA          0   0.26000E-02  565540.8 4191749.5  103.6   20.12  293.15    4.15    1.52     YES
HHSTKB          0   0.26000E-02  565565.6 4191756.8  103.6   20.12  293.15    4.15    1.52     YES
HHSTKC          0   0.26000E-02  565576.8 4191717.8  103.6   20.12  293.15    4.15    1.52     YES
HHSTKD          0   0.26000E-02  565553.2 4191710.5  103.6   20.12  293.15    4.15    1.52     YES
HHSTKE          0   0.26000E-02  565543.4 4191746.5  103.6   20.12  293.15    4.15    0.81     YES
GHSTK1          0   0.36700E-03  565507.1 4191756.0  103.6   16.06  293.15    5.92    0.30     YES
GHSTK2          0   0.36700E-03  565510.6 4191744.8  103.6   16.06  293.15    5.92    0.25     YES
GHSTK3          0   0.36700E-03  565512.4 4191739.0  103.6   16.37  293.15    5.92    0.30     YES
GHSTK4          0   0.36700E-03  565514.7 4191737.8  103.6   15.91  293.15    5.92    0.31     YES
GHSTK5          0   0.36700E-03  565514.9 4191732.2  103.6   16.06  293.15    5.92    0.30     YES
GHSTK6          0   0.36700E-03  565500.2 4191755.2  103.6   16.12  293.15    5.92    0.30     YES
GHSTK7          0   0.36700E-03  565501.1 4191753.0  103.6   16.37  293.15    5.92    0.84     YES
GHSTK8          0   0.36700E-03  565503.7 4191744.2  103.6   16.00  293.15    5.92    0.30     YES
GHSTK9          0   0.36700E-03  565505.2 4191740.2  103.6   16.37  293.15    5.92    0.26     YES
GHSTK10         0   0.36700E-03  565506.9 4191735.2  103.6   16.06  293.15    5.92    0.30     YES
GHSTK11         0   0.36700E-03  565509.7 4191728.2  103.6   16.22  293.15    5.92    0.30     YES
GHSTK12         0   0.36700E-03  565509.0 4191725.5  103.6   16.06  293.15    5.92    0.30     YES
GHSTK13         0   0.36700E-03  565516.9 4191725.8  103.6   15.91  293.15    5.92    0.40     YES
CHSTK1          0   0.86900E-04  565393.9 4192008.8  110.3   26.85  293.15    2.00    1.00     YES
HESSTK1         0   0.73300E-03  565234.6 4191926.2   98.2   15.39  293.15    2.00    1.00     YES
HILSTK1         0   0.72100E-03  564874.6 4191815.0   80.4   14.96  293.15    2.00    1.00     YES
MULSTK1         0   0.53300E-05  564779.7 4191737.8   74.4   17.24  293.15    2.00    1.00     YES
WELSTK1         0   0.13600E-04  564933.7 4191795.2   81.7    5.89  293.15    2.00    1.00     YES
PRINTA          0   0.10400E-03  564584.7 4191553.2   60.0    8.91  293.15    2.70    0.84     YES
PRINTB          0   0.10400E-03  564614.4 4191520.8   60.0    8.91  293.15    2.70    0.84     YES
PRINTC          0   0.10400E-03  564643.1 4191525.5   60.0    8.91  293.15    2.70    0.60     YES
COGEN           0   0.97700E+00  564876.0 4191492.0   71.9   12.77  430.37   10.45    2.28     YES
BOILER#2        0   0.12440E-01  564863.6 4191499.5   71.9    8.80  522.82    7.97    1.52     YES
BOILER#3        0   0.47000E-01  564881.9 4191505.8   71.9    8.80  554.11   10.53    1.52     YES
BOILER#4        0   0.56800E-01  564885.8 4191495.8   71.9    8.80  566.65   12.63    1.52     YES
POURING         0   0.22400E-02  564847.8 4191467.0   70.1   14.94  293.15    4.62    0.56     YES


                              *** POINT SOURCE DATA ***


              NUMBER EMISSION RATE                   BASE     STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
     SOURCE   PART.  (GRAMS/SEC)    X        Y        ELEV.   HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
       ID     CATS.            (METERS) (METERS)  (METERS) (METERS) (DEG.K)  (M/SEC)   (METERS)                BY
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


     ENG_62       0   0.47241E-02  565567.6 4191086.5   85.1    4.57  800.37  146.01    0.13      NO
     ENG_63       0   0.23621E-02  564668.2 4191897.5   70.2    4.57  799.85  152.00    0.13      YES
     ENG_64       0   0.72350E-03  565452.9 4191687.0   98.2    3.05  817.07   58.47    0.08      YES
     ENG_105      0   0.74200E-01  564939.1 4191457.8   71.1    4.57  810.96   70.10    0.23      YES
     ENG_106      0   0.62205E-01  564991.6 4191614.5   73.6   30.48  810.96   70.10    0.20      YES
     ENG_107      0   0.49776E-01  564767.4 4191906.8   76.2    0.00  810.96   70.10    0.18      YES
     ENG_108      0   0.49776E-01  564930.6 4191564.2   68.8    7.62  810.96   70.10    0.18      YES
     ENG_109      0   0.16596E-02  565615.8 4191801.2  111.7    3.05  810.96   70.10    0.15      YES
     ENG_110      0   0.82858E-02  564655.9 4191874.5   68.4    4.57  810.96   70.10    0.10      YES
     ENG_111      0   0.23806E-01  565091.1 4191757.8   78.9    3.05  810.96   70.10    0.11      YES
     ENG_112      0   0.20714E-01  565542.8 4191208.2   85.7    3.05  810.93   70.10    0.10      NO
     ENG_113      0   0.20714E-01  565673.6 4191194.8   92.0    3.05  810.93   70.10    0.10      NO
     ENG_114      0   0.20714E-01  565601.4 4191014.2   86.0    3.05  810.93   70.10    0.10      NO
     ENG_115      0   0.20714E-01  565702.9 4190991.8   91.4    3.05  810.93   70.10    0.10      NO
     ENG_117      0   0.20714E-01  565575.9 4191609.0   99.3    3.05  810.96   70.10    0.10      YES
     ENG_118      0   0.98935E-02  564654.8 4191890.5   68.6    4.57  810.96   70.10    0.13      YES
     ENG_119      0   0.14531E-01  564728.8 4191771.0   70.5    4.57  810.96   70.10    0.08      YES
     ENG_120      0   0.10450E-01  565318.0 4191422.5   86.1    3.05  810.96   70.10    0.08      YES
     ENG_121      0   0.10388E-01  565926.2 4191443.0  118.9    3.05  810.93   70.10    0.08      NO
     ENG_123      0   0.12800E-02  565259.4 4191652.8   88.3    3.05  810.96   70.10    0.08      YES
     ENG_125      0   0.41058E-02  564811.2 4191460.8   67.7    3.05  810.96   70.10    0.08      YES
     ENG_126      0   0.33143E-02  565137.9 4191441.5   77.6    0.00  810.96   70.10    0.08      YES
     ENG_128      0   0.41429E-02  565469.2 4191955.2  109.8    3.05  810.96   70.10    0.05      YES
     ENG_129      0   0.41429E-02  565383.1 4191740.2   97.0    2.44  810.96   70.10    0.05      YES
     ENG_130      0   0.25692E-02  565533.3 4191713.5   98.9    2.44  815.40  134.54    0.08      YES
     ENG_131      0   0.72350E-03  564970.3 4191484.2   71.3    1.83  817.07   58.47    0.08      YES
     ENG_132      0   0.72350E-03  564800.3 4191781.8   74.3    1.83  817.07   58.47    0.08      YES
     E134_133     0   0.18674E-01  565380.0 4191603.2  104.3    3.05  769.29  135.05    0.13      YES
     NEWLAB_A     0   0.53000E-01  564808.8 4191708.2   70.5    6.10  293.15    3.97    1.00      YES
     NEWLAB_B     0   0.10800E-01  565047.0 4191787.5   77.9    6.10  293.15    3.97    1.00      YES
     NEWLAB_C     0   0.59900E-02  565301.9 4191832.0   90.7    6.10  293.15    3.97    1.00      YES
     NEWLAB_D     0   0.31900E-02  565490.2 4191861.5  106.7    6.10  293.15    3.97    1.00      YES
     NEWLAB_E     0   0.85200E-02  565089.5 4191460.8   73.6    6.10  293.15    3.97    1.00      YES
     NEWLAB_F     0   0.67500E-02  565368.8 4191521.8   86.7    6.10  293.15    3.97    1.00      YES
     NEWLAB_G     0   0.19400E-02  565641.7 4191569.5  102.4    6.10  293.15    3.97    1.00      YES
     ENG_STNL     0   0.69563E-02  565539.1 4191905.2  114.2    2.13  769.26   76.14    0.18      YES
     ENG_DVS      0   0.69563E-02  565364.1 4191990.5  109.8    2.13  769.26   76.14    0.18      YES
     ENG_MCCN     0   0.27825E-02  565176.4 4191928.8   93.8    2.13  810.93   59.08    0.13      YES
     ENG_SRB1     0   0.27825E-02  564595.2 4191928.2   67.3    2.13  810.93   59.08    0.13      YES
```

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   ENGNULAB      0   0.69563E-02  564559.2 4191851.0    64.9    2.13   769.26   76.14     0.18      YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ENGMUSIC	0	0.27825E-02	565510.9	4191488.8	94.8	2.13	810.93	59.08	0.13	YES	
ENG_UNT1	0	0.27825E-02	565595.6	4191185.0	87.9	2.13	810.93	59.08	0.13	NO	
ENG_UNT2	0	0.27825E-02	565647.0	4191033.2	88.8	2.13	810.93	59.08	0.13	NO	
ENG_UNT3	0	0.27825E-02	565112.1	4191138.8	72.6	2.13	810.93	59.08	0.13	NO	
ENG116NU	0	0.58900E-02	564775.8	4191177.5	63.2	2.13	810.93	87.63	0.15	NO	
NEWSTAN1	0	0.69300E-02	565533.9	4191904.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN2	0	0.69300E-02	565535.5	4191899.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN3	0	0.69300E-02	565537.2	4191894.5	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN4	0	0.69300E-02	565538.8	4191889.8	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN5	0	0.69300E-02	565545.4	4191891.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN6	0	0.69300E-02	565543.6	4191896.2	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN7	0	0.69300E-02	565542.0	4191901.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN8	0	0.69300E-02	565540.3	4191905.8	112.9	41.90	293.15	17.25	1.32	YES	
NEWDAVS1	0	0.66300E-02	565340.6	4191981.0	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS2	0	0.66300E-02	565338.7	4191980.8	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS3	0	0.66300E-02	565329.5	4191986.8	109.2	33.79	293.15	13.62	0.86	YES	
NEWDAVS4	0	0.66300E-02	565328.4	4191986.2	109.2	33.79	293.15	13.62	0.86	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.24000E-03	564821.2	4191842.8	74.8	6.95	0.07	2.42	
PAINT1	0	0.31900E-03	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.31900E-03	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.31900E-03	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.31900E-03	564865.7	4191751.0	77.0	4.57	3.54	4.25	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs

```
  ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
           KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
           LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
           LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
           TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
           GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
           WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
           PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
           ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
           ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133, NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F,
NEWLAB_G,
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           ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1, ENG_UNT2, ENG_UNT3, ENG116NU, NEWSTAN1,
NEWSTAN2,

           NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

   WH        WHSTK1_8, WHSTK10 ,

   NWAF      NWAF9   ,

   MH        MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

   KH        KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

   BH        BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

   VLSB      VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

   LSA       LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

   LEW       LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
    GROUP ID                                      SOURCE IDs

   LAT       LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

   TAN       TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

   HH        HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

   GH        GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
GHSTK12 ,

           GHSTK13 ,

   CH        CHSTK1  ,

   HES       HESSTK1 ,

   HIL       HILSTK1 ,

   MUL       MULSTK1 ,

   WEL       WELSTK1 ,

   PRINT     PRINTA  , PRINTB  , PRINTC  ,

   COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

   HAZMAT    POURING ,

   PAINT     PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

   EXISTLAB  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
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          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID                                        SOURCE IDs

          WELSTK1 ,

  ENGINES  ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
ENG_113 ,

          ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 , ENG_128 ,
ENG_129 ,

          ENG_130 , ENG_131 , ENG_132 , E134_133,

  NEWLABS  NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4,
NEWSTAN5,

          NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  ALL_LABS WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

          WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_G, ENG_UNT3, NEWSTAN1, NEWSTAN2, NEWSTAN3,
NEWSTAN4,

          NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  EXISTING WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
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                    *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID                                    SOURCE IDs


          WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
          PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
          ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
          ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,


  NEWLAB_A  NEWLAB_A,


  NEWLAB_B  NEWLAB_B,


  NEWLAB_C  NEWLAB_C,


  NEWLAB_D  NEWLAB_D,


  NEWLAB_E  NEWLAB_E,


  NEWLAB_F  NEWLAB_F,


  NEWLAB_G  NEWLAB_G,


  DAVISNEW  NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,


  STAN_NEW  NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8,


  NEWENG    ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENG_UNT1, ENG_UNT2, ENG_UNT3,



                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                 ** CONC OF CANCER   IN MICROGRAMS/M**3                    **
                                                                                    NETWORK
  GROUP ID                   AVERAGE CONC         RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  ALL     1ST HIGHEST VALUE IS      5.35416 AT (  564892.25, 4191959.00,    84.00,    0.00) DC      NA
          2ND HIGHEST VALUE IS      5.32787 AT (  564700.00, 4192000.00,    76.00,    0.00) DC      NA
          3RD HIGHEST VALUE IS      4.92932 AT (  564941.88, 4191967.00,    90.00,    0.00) DC      NA
          4TH HIGHEST VALUE IS      4.56139 AT (  564991.81, 4191975.00,    93.00,    0.00) DC      NA
          5TH HIGHEST VALUE IS      4.53868 AT (  564800.00, 4192000.00,    81.00,    0.00) DC      NA
          6TH HIGHEST VALUE IS      4.45945 AT (  565000.00, 4192000.00,    98.00,    0.00) DC      NA
          7TH HIGHEST VALUE IS      4.44064 AT (  565800.00, 4191200.00,   100.00,    0.00) DC      NA
          8TH HIGHEST VALUE IS      4.38049 AT (  564842.69, 4191950.00,    83.00,    0.00) DC      NA
          9TH HIGHEST VALUE IS      4.29920 AT (  564900.00, 4192000.00,    88.00,    0.00) DC      NA
         10TH HIGHEST VALUE IS      4.27275 AT (  564698.50, 4191908.75,    72.00,    0.00) DC      NA

  WH      1ST HIGHEST VALUE IS      0.00268 AT (  564698.50, 4191908.75,    72.00,    0.00) DC      NA
          2ND HIGHEST VALUE IS      0.00263 AT (  564639.88, 4191852.00,    67.00,    0.00) DC      NA
          3RD HIGHEST VALUE IS      0.00258 AT (  564664.50, 4191903.50,    71.00,    0.00) DC      NA
          4TH HIGHEST VALUE IS      0.00247 AT (  564600.00, 4191900.00,    67.00,    0.00) DC      NA
          5TH HIGHEST VALUE IS      0.00231 AT (  564648.62, 4191891.75,    68.00,    0.00) DC      NA
          6TH HIGHEST VALUE IS      0.00189 AT (  564748.50, 4191916.75,    75.00,    0.00) DC      NA
          7TH HIGHEST VALUE IS      0.00135 AT (  564795.00, 4191930.25,    78.00,    0.00) DC      NA
          8TH HIGHEST VALUE IS      0.00103 AT (  564700.00, 4192000.00,    76.00,    0.00) DC      NA
          9TH HIGHEST VALUE IS      0.00098 AT (  564600.00, 4192000.00,    72.00,    0.00) DC      NA
         10TH HIGHEST VALUE IS      0.00093 AT (  564500.00, 4191900.00,    65.00,    0.00) DC      NA

  NWAF    1ST HIGHEST VALUE IS      0.00249 AT (  565000.00, 4192000.00,    98.00,    0.00) DC      NA
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              2ND HIGHEST VALUE IS    0.00247 AT (  565141.94,  4191999.00,   97.00,    0.00)  DC      NA
              3RD HIGHEST VALUE IS    0.00236 AT (  565241.19,  4192017.75,  102.00,    0.00)  DC      NA
              4TH HIGHEST VALUE IS    0.00231 AT (  565191.50,  4192009.50,   97.00,    0.00)  DC      NA
              5TH HIGHEST VALUE IS    0.00223 AT (  565289.25,  4192025.50,  107.00,    0.00)  DC      NA
              6TH HIGHEST VALUE IS    0.00208 AT (  565090.81,  4191991.50,   96.00,    0.00)  DC      NA
              7TH HIGHEST VALUE IS    0.00204 AT (  565339.88,  4192034.25,  108.00,    0.00)  DC      NA
              8TH HIGHEST VALUE IS    0.00199 AT (  564900.00,  4192100.00,  102.00,    0.00)  DC      NA
              9TH HIGHEST VALUE IS    0.00198 AT (  565100.00,  4192000.00,   96.00,    0.00)  DC      NA
             10TH HIGHEST VALUE IS    0.00196 AT (  565100.00,  4192100.00,  107.00,    0.00)  DC      NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MH      1ST HIGHEST VALUE IS    0.06988 AT (  564748.50,  4191916.75,   75.00,    0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.05740 AT (  564795.00,  4191930.25,   78.00,    0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.04863 AT (  564698.50,  4191908.75,   72.00,    0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.04761 AT (  564842.69,  4191950.00,   83.00,    0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.03585 AT (  564700.00,  4192000.00,   76.00,    0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.03441 AT (  564664.50,  4191903.50,   71.00,    0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.02884 AT (  564892.25,  4191959.00,   84.00,    0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.02844 AT (  564800.00,  4192000.00,   81.00,    0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.02494 AT (  564600.00,  4192000.00,   72.00,    0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.02409 AT (  564941.88,  4191967.00,   90.00,    0.00)  DC      NA

KH      1ST HIGHEST VALUE IS    0.26554 AT (  564842.69,  4191950.00,   83.00,    0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.25816 AT (  564700.00,  4192000.00,   76.00,    0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.22663 AT (  564800.00,  4192000.00,   81.00,    0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.21430 AT (  564892.25,  4191959.00,   84.00,    0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.20313 AT (  564600.00,  4192000.00,   72.00,    0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.18282 AT (  564991.81,  4191975.00,   93.00,    0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.17579 AT (  564941.88,  4191967.00,   90.00,    0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.15537 AT (  565000.00,  4192000.00,   98.00,    0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.14675 AT (  565042.31,  4191983.00,   93.00,    0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.14449 AT (  564800.00,  4192100.00,   92.00,    0.00)  DC      NA

BH      1ST HIGHEST VALUE IS    0.04734 AT (  564795.00,  4191930.25,   78.00,    0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.03695 AT (  564842.69,  4191950.00,   83.00,    0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.02970 AT (  564600.00,  4192000.00,   72.00,    0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.02815 AT (  564892.25,  4191959.00,   84.00,    0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.02339 AT (  564700.00,  4192000.00,   76.00,    0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.02336 AT (  564941.88,  4191967.00,   90.00,    0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.02165 AT (  564800.00,  4192000.00,   81.00,    0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.02085 AT (  564900.00,  4192000.00,   88.00,    0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.01868 AT (  565000.00,  4192000.00,   98.00,    0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.01820 AT (  564991.81,  4191975.00,   93.00,    0.00)  DC      NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


VLSB    1ST HIGHEST VALUE IS    0.02270 AT (  565226.19,  4191310.50,   81.00,    0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.02244 AT (  564795.00,  4191930.25,   78.00,    0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.02210 AT (  565200.00,  4191300.00,   80.00,    0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.02198 AT (  565176.31,  4191303.25,   79.00,    0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.02188 AT (  565577.06,  4191362.50,   93.00,    0.00)  DC      NA
        6TH HIGHEST VALUE IS    0.02154 AT (  564842.69,  4191950.00,   83.00,    0.00)  DC      NA
        7TH HIGHEST VALUE IS    0.02145 AT (  565276.06,  4191318.25,   82.00,    0.00)  DC      NA
        8TH HIGHEST VALUE IS    0.02066 AT (  565326.25,  4191324.25,   84.00,    0.00)  DC      NA
        9TH HIGHEST VALUE IS    0.02062 AT (  565626.50,  4191370.25,   95.00,    0.00)  DC      NA
       10TH HIGHEST VALUE IS    0.02039 AT (  564748.50,  4191916.75,   75.00,    0.00)  DC      NA

LSA     1ST HIGHEST VALUE IS    0.07042 AT (  565176.31,  4191303.25,   79.00,    0.00)  DC      NA
        2ND HIGHEST VALUE IS    0.07022 AT (  565577.06,  4191362.50,   93.00,    0.00)  DC      NA
        3RD HIGHEST VALUE IS    0.06962 AT (  565376.81,  4191332.25,   87.00,    0.00)  DC      NA
        4TH HIGHEST VALUE IS    0.06961 AT (  565127.75,  4191295.25,   77.00,    0.00)  DC      NA
        5TH HIGHEST VALUE IS    0.06949 AT (  565077.25,  4191285.50,   76.00,    0.00)  DC      NA
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            6TH HIGHEST VALUE IS     0.06821 AT (  565200.00,  4191300.00,     80.00,    0.00)  DC     NA
            7TH HIGHEST VALUE IS     0.06743 AT (  565226.19,  4191310.50,     81.00,    0.00)  DC     NA
            8TH HIGHEST VALUE IS     0.06636 AT (  565326.25,  4191324.25,     84.00,    0.00)  DC     NA
            9TH HIGHEST VALUE IS     0.06602 AT (  565426.81,  4191338.75,     88.00,    0.00)  DC     NA
           10TH HIGHEST VALUE IS     0.06563 AT (  565626.50,  4191370.25,     95.00,    0.00)  DC     NA

LEW    1ST HIGHEST VALUE IS     0.07244 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC     NA
       2ND HIGHEST VALUE IS     0.06431 AT (  565500.00,  4192100.00,    126.00,    0.00)  DC     NA
       3RD HIGHEST VALUE IS     0.06282 AT (  565460.56,  4192039.50,    117.00,    0.00)  DC     NA
       4TH HIGHEST VALUE IS     0.05757 AT (  565438.25,  4192048.75,    117.00,    0.00)  DC     NA
       5TH HIGHEST VALUE IS     0.05506 AT (  566100.00,  4191600.00,    141.00,    0.00)  DC     NA
       6TH HIGHEST VALUE IS     0.04783 AT (  565390.25,  4192042.25,    113.00,    0.00)  DC     NA
       7TH HIGHEST VALUE IS     0.04774 AT (  565300.00,  4192300.00,    123.00,    0.00)  DC     NA
       8TH HIGHEST VALUE IS     0.04488 AT (  565600.00,  4192100.00,    140.00,    0.00)  DC     NA
       9TH HIGHEST VALUE IS     0.04368 AT (  566200.00,  4191600.00,    144.00,    0.00)  DC     NA
      10TH HIGHEST VALUE IS     0.04327 AT (  565339.88,  4192034.25,    108.00,    0.00)  DC     NA


                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


              ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                        NETWORK
GROUP ID                    AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

LAT    1ST HIGHEST VALUE IS     0.11254 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC     NA
       2ND HIGHEST VALUE IS     0.10472 AT (  566200.00,  4191600.00,    144.00,    0.00)  DC     NA
       3RD HIGHEST VALUE IS     0.10017 AT (  565460.56,  4192039.50,    117.00,    0.00)  DC     NA
       4TH HIGHEST VALUE IS     0.09461 AT (  565438.25,  4192048.75,    117.00,    0.00)  DC     NA
       5TH HIGHEST VALUE IS     0.09392 AT (  566100.00,  4191600.00,    141.00,    0.00)  DC     NA
       6TH HIGHEST VALUE IS     0.09315 AT (  565390.25,  4192042.25,    113.00,    0.00)  DC     NA
       7TH HIGHEST VALUE IS     0.09057 AT (  565339.88,  4192034.25,    108.00,    0.00)  DC     NA
       8TH HIGHEST VALUE IS     0.08856 AT (  566200.00,  4191500.00,    156.00,    0.00)  DC     NA
       9TH HIGHEST VALUE IS     0.08814 AT (  565800.00,  4192000.00,    178.00,    0.00)  DC     NA
      10TH HIGHEST VALUE IS     0.08747 AT (  565900.00,  4192000.00,    182.00,    0.00)  DC     NA

TAN    1ST HIGHEST VALUE IS     0.05185 AT (  566100.00,  4191600.00,    141.00,    0.00)  DC     NA
       2ND HIGHEST VALUE IS     0.04666 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC     NA
       3RD HIGHEST VALUE IS     0.04438 AT (  565289.25,  4192025.50,    107.00,    0.00)  DC     NA
       4TH HIGHEST VALUE IS     0.04434 AT (  566200.00,  4191600.00,    144.00,    0.00)  DC     NA
       5TH HIGHEST VALUE IS     0.04185 AT (  565390.25,  4192042.25,    113.00,    0.00)  DC     NA
       6TH HIGHEST VALUE IS     0.04047 AT (  565438.25,  4192048.75,    117.00,    0.00)  DC     NA
       7TH HIGHEST VALUE IS     0.03970 AT (  565460.56,  4192039.50,    117.00,    0.00)  DC     NA
       8TH HIGHEST VALUE IS     0.03935 AT (  565339.88,  4192034.25,    108.00,    0.00)  DC     NA
       9TH HIGHEST VALUE IS     0.03778 AT (  565500.00,  4192100.00,    126.00,    0.00)  DC     NA
      10TH HIGHEST VALUE IS     0.03679 AT (  565600.00,  4192100.00,    140.00,    0.00)  DC     NA

HH     1ST HIGHEST VALUE IS     0.10735 AT (  566100.00,  4191600.00,    141.00,    0.00)  DC     NA
       2ND HIGHEST VALUE IS     0.08100 AT (  566200.00,  4191600.00,    144.00,    0.00)  DC     NA
       3RD HIGHEST VALUE IS     0.07321 AT (  566200.00,  4191500.00,    156.00,    0.00)  DC     NA
       4TH HIGHEST VALUE IS     0.07099 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC     NA
       5TH HIGHEST VALUE IS     0.07090 AT (  565289.25,  4192025.50,    107.00,    0.00)  DC     NA
       6TH HIGHEST VALUE IS     0.07072 AT (  565600.00,  4192100.00,    140.00,    0.00)  DC     NA
       7TH HIGHEST VALUE IS     0.06973 AT (  565339.88,  4192034.25,    108.00,    0.00)  DC     NA
       8TH HIGHEST VALUE IS     0.06819 AT (  566100.00,  4191400.00,    149.00,    0.00)  DC     NA
       9TH HIGHEST VALUE IS     0.06698 AT (  565390.25,  4192042.25,    113.00,    0.00)  DC     NA
      10TH HIGHEST VALUE IS     0.06389 AT (  565460.56,  4192039.50,    117.00,    0.00)  DC     NA


                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


              ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                        NETWORK
GROUP ID                    AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

GH     1ST HIGHEST VALUE IS     0.03653 AT (  566100.00,  4191600.00,    141.00,    0.00)  DC     NA
       2ND HIGHEST VALUE IS     0.03119 AT (  565289.25,  4192025.50,    107.00,    0.00)  DC     NA
       3RD HIGHEST VALUE IS     0.03001 AT (  565241.19,  4192017.75,    102.00,    0.00)  DC     NA
       4TH HIGHEST VALUE IS     0.02990 AT (  565500.00,  4192100.00,    126.00,    0.00)  DC     NA
       5TH HIGHEST VALUE IS     0.02864 AT (  565339.88,  4192034.25,    108.00,    0.00)  DC     NA
       6TH HIGHEST VALUE IS     0.02845 AT (  566200.00,  4191600.00,    144.00,    0.00)  DC     NA
       7TH HIGHEST VALUE IS     0.02727 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC     NA
       8TH HIGHEST VALUE IS     0.02690 AT (  565600.00,  4192100.00,    140.00,    0.00)  DC     NA
       9TH HIGHEST VALUE IS     0.02688 AT (  565191.50,  4192009.50,     97.00,    0.00)  DC     NA
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          10TH HIGHEST VALUE IS        0.02663 AT (  565390.25,  4192042.25,    113.00,     0.00) DC     NA

CH      1ST HIGHEST VALUE IS         0.00301 AT (  565475.12,  4192018.00,    118.00,     0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00132 AT (  565500.00,  4192100.00,    126.00,     0.00) DC     NA
        3RD HIGHEST VALUE IS         0.00126 AT (  565600.00,  4192100.00,    140.00,     0.00) DC     NA
        4TH HIGHEST VALUE IS         0.00124 AT (  565400.00,  4192100.00,    116.00,     0.00) DC     NA
        5TH HIGHEST VALUE IS         0.00115 AT (  565300.00,  4192100.00,    107.00,     0.00) DC     NA
        6TH HIGHEST VALUE IS         0.00083 AT (  565800.00,  4192000.00,    178.00,     0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00083 AT (  565700.00,  4192100.00,    165.00,     0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00067 AT (  565400.00,  4192200.00,    118.00,     0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00066 AT (  565500.00,  4192200.00,    136.00,     0.00) DC     NA
       10TH HIGHEST VALUE IS         0.00063 AT (  565300.00,  4192200.00,    112.00,     0.00) DC     NA

HES     1ST HIGHEST VALUE IS         0.02430 AT (  565141.94,  4191999.00,     97.00,     0.00) DC     NA
        2ND HIGHEST VALUE IS         0.02416 AT (  565191.50,  4192009.50,     97.00,     0.00) DC     NA
        3RD HIGHEST VALUE IS         0.02162 AT (  565241.19,  4192017.75,    102.00,     0.00) DC     NA
        4TH HIGHEST VALUE IS         0.01621 AT (  565289.25,  4192025.50,    107.00,     0.00) DC     NA
        5TH HIGHEST VALUE IS         0.01545 AT (  565100.00,  4192000.00,     96.00,     0.00) DC     NA
        6TH HIGHEST VALUE IS         0.01318 AT (  565090.81,  4191991.50,     96.00,     0.00) DC     NA
        7TH HIGHEST VALUE IS         0.01238 AT (  565100.00,  4192100.00,    107.00,     0.00) DC     NA
        8TH HIGHEST VALUE IS         0.01221 AT (  565339.88,  4192034.25,    108.00,     0.00) DC     NA
        9TH HIGHEST VALUE IS         0.01139 AT (  565475.12,  4192018.00,    118.00,     0.00) DC     NA
       10TH HIGHEST VALUE IS         0.01043 AT (  565460.56,  4192039.50,    117.00,     0.00) DC     NA




                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                      AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

HIL     1ST HIGHEST VALUE IS         0.01604 AT (  564795.00,  4191930.25,     78.00,     0.00) DC     NA
        2ND HIGHEST VALUE IS         0.01418 AT (  564748.50,  4191916.75,     75.00,     0.00) DC     NA
        3RD HIGHEST VALUE IS         0.01415 AT (  564842.69,  4191950.00,     83.00,     0.00) DC     NA
        4TH HIGHEST VALUE IS         0.01241 AT (  564941.88,  4191967.00,     90.00,     0.00) DC     NA
        5TH HIGHEST VALUE IS         0.01220 AT (  564892.25,  4191959.00,     84.00,     0.00) DC     NA
        6TH HIGHEST VALUE IS         0.01008 AT (  564800.00,  4192000.00,     81.00,     0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00946 AT (  564900.00,  4192000.00,     88.00,     0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00934 AT (  564991.81,  4191975.00,     93.00,     0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00902 AT (  564700.00,  4192000.00,     76.00,     0.00) DC     NA
       10TH HIGHEST VALUE IS         0.00893 AT (  565000.00,  4192000.00,     98.00,     0.00) DC     NA

MUL     1ST HIGHEST VALUE IS         0.00006 AT (  564664.50,  4191903.50,     71.00,     0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00006 AT (  564795.00,  4191930.25,     78.00,     0.00) DC     NA
        3RD HIGHEST VALUE IS         0.00006 AT (  564648.62,  4191891.75,     68.00,     0.00) DC     NA
        4TH HIGHEST VALUE IS         0.00006 AT (  564698.50,  4191908.75,     72.00,     0.00) DC     NA
        5TH HIGHEST VALUE IS         0.00006 AT (  564842.69,  4191950.00,     83.00,     0.00) DC     NA
        6TH HIGHEST VALUE IS         0.00006 AT (  564639.88,  4191852.00,     67.00,     0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00005 AT (  564748.50,  4191916.75,     75.00,     0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00005 AT (  564800.00,  4192000.00,     81.00,     0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00005 AT (  564645.94,  4191801.25,     66.00,     0.00) DC     NA
       10TH HIGHEST VALUE IS         0.00005 AT (  564600.00,  4191900.00,     67.00,     0.00) DC     NA

WEL     1ST HIGHEST VALUE IS         0.00048 AT (  564795.00,  4191930.25,     78.00,     0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00036 AT (  564892.25,  4191959.00,     84.00,     0.00) DC     NA
        3RD HIGHEST VALUE IS         0.00032 AT (  564941.88,  4191967.00,     90.00,     0.00) DC     NA
        4TH HIGHEST VALUE IS         0.00031 AT (  564748.50,  4191916.75,     75.00,     0.00) DC     NA
        5TH HIGHEST VALUE IS         0.00030 AT (  564842.69,  4191950.00,     83.00,     0.00) DC     NA
        6TH HIGHEST VALUE IS         0.00027 AT (  564900.00,  4192000.00,     88.00,     0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00025 AT (  564991.81,  4191975.00,     93.00,     0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00025 AT (  564800.00,  4192000.00,     81.00,     0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00024 AT (  564700.00,  4192000.00,     76.00,     0.00) DC     NA
       10TH HIGHEST VALUE IS         0.00023 AT (  564800.00,  4192100.00,     92.00,     0.00) DC     NA




                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                      AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PRINT   1ST HIGHEST VALUE IS         0.08737 AT (  564673.81,  4191519.00,     63.00,     0.00) DC     NA
        2ND HIGHEST VALUE IS         0.05071 AT (  564675.81,  4191504.00,     62.00,     0.00) DC     NA
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            3RD  HIGHEST VALUE IS      0.02268 AT (  564550.38,  4191600.50,    60.00,    0.00)  DC      NA
            4TH  HIGHEST VALUE IS      0.02118 AT (  564678.75,  4191454.25,    62.00,    0.00)  DC      NA
            5TH  HIGHEST VALUE IS      0.02090 AT (  564557.88,  4191553.00,    60.00,    0.00)  DC      NA
            6TH  HIGHEST VALUE IS      0.01889 AT (  564603.69,  4191609.25,    62.00,    0.00)  DC      NA
            7TH  HIGHEST VALUE IS      0.01505 AT (  564665.12,  4191621.25,    65.00,    0.00)  DC      NA
            8TH  HIGHEST VALUE IS      0.01305 AT (  564500.00,  4191600.00,    59.00,    0.00)  DC      NA
            9TH  HIGHEST VALUE IS      0.01196 AT (  564678.50,  4191403.75,    61.00,    0.00)  DC      NA
           10TH  HIGHEST VALUE IS      0.01163 AT (  564617.12,  4191507.50,    60.00,    0.00)  DC      NA

COMBUST  1ST  HIGHEST VALUE IS      1.10750 AT (  566200.00,  4191300.00,   158.00,    0.00)  DC      NA
            2ND  HIGHEST VALUE IS      1.08035 AT (  566100.00,  4191400.00,   149.00,    0.00)  DC      NA
            3RD  HIGHEST VALUE IS      1.07069 AT (  566200.00,  4191400.00,   174.00,    0.00)  DC      NA
            4TH  HIGHEST VALUE IS      1.02572 AT (  566300.00,  4191300.00,   176.00,    0.00)  DC      NA
            5TH  HIGHEST VALUE IS      1.01023 AT (  566100.00,  4191300.00,   140.00,    0.00)  DC      NA
            6TH  HIGHEST VALUE IS      0.98699 AT (  566400.00,  4191200.00,   166.00,    0.00)  DC      NA
            7TH  HIGHEST VALUE IS      0.98012 AT (  566400.00,  4191100.00,   174.00,    0.00)  DC      NA
            8TH  HIGHEST VALUE IS      0.97393 AT (  566300.00,  4191400.00,   204.00,    0.00)  DC      NA
            9TH  HIGHEST VALUE IS      0.96945 AT (  566200.00,  4191200.00,   142.00,    0.00)  DC      NA
           10TH  HIGHEST VALUE IS      0.96280 AT (  566400.00,  4191000.00,   162.00,    0.00)  DC      NA

HAZMAT   1ST  HIGHEST VALUE IS      0.03561 AT (  564976.62,  4191271.75,    73.00,    0.00)  DC      NA
            2ND  HIGHEST VALUE IS      0.03340 AT (  565026.56,  4191279.00,    74.00,    0.00)  DC      NA
            3RD  HIGHEST VALUE IS      0.03109 AT (  564927.50,  4191263.50,    71.00,    0.00)  DC      NA
            4TH  HIGHEST VALUE IS      0.03029 AT (  564665.12,  4191621.25,    65.00,    0.00)  DC      NA
            5TH  HIGHEST VALUE IS      0.02904 AT (  565077.25,  4191285.50,    76.00,    0.00)  DC      NA
            6TH  HIGHEST VALUE IS      0.02873 AT (  565176.31,  4191303.25,    79.00,    0.00)  DC      NA
            7TH  HIGHEST VALUE IS      0.02809 AT (  565127.75,  4191295.25,    77.00,    0.00)  DC      NA
            8TH  HIGHEST VALUE IS      0.02798 AT (  564663.00,  4191652.50,    65.00,    0.00)  DC      NA
            9TH  HIGHEST VALUE IS      0.02701 AT (  565200.00,  4191300.00,    80.00,    0.00)  DC      NA
           10TH  HIGHEST VALUE IS      0.02610 AT (  565376.81,  4191332.25,    87.00,    0.00)  DC      NA



                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                        AVERAGE CONC             RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


PAINT    1ST  HIGHEST VALUE IS      0.02407 AT (  565191.50,  4192009.50,    97.00,    0.00)  DC      NA
            2ND  HIGHEST VALUE IS      0.02341 AT (  565141.94,  4191999.00,    97.00,    0.00)  DC      NA
            3RD  HIGHEST VALUE IS      0.02238 AT (  565675.94,  4191381.00,    98.00,    0.00)  DC      NA
            4TH  HIGHEST VALUE IS      0.02148 AT (  565626.50,  4191370.25,    95.00,    0.00)  DC      NA
            5TH  HIGHEST VALUE IS      0.02129 AT (  565026.56,  4191279.00,    74.00,    0.00)  DC      NA
            6TH  HIGHEST VALUE IS      0.02081 AT (  565241.19,  4192017.75,   102.00,    0.00)  DC      NA
            7TH  HIGHEST VALUE IS      0.01973 AT (  565100.00,  4192000.00,    96.00,    0.00)  DC      NA
            8TH  HIGHEST VALUE IS      0.01958 AT (  564976.62,  4191271.75,    73.00,    0.00)  DC      NA
            9TH  HIGHEST VALUE IS      0.01905 AT (  565090.81,  4191991.50,    96.00,    0.00)  DC      NA
           10TH  HIGHEST VALUE IS      0.01846 AT (  565726.62,  4191386.25,   100.00,    0.00)  DC      NA

EXISTLAB 1ST  HIGHEST VALUE IS      0.49014 AT (  564842.69,  4191950.00,    83.00,    0.00)  DC      NA
            2ND  HIGHEST VALUE IS      0.43342 AT (  565475.12,  4192018.00,   118.00,    0.00)  DC      NA
            3RD  HIGHEST VALUE IS      0.42593 AT (  564700.00,  4192000.00,    76.00,    0.00)  DC      NA
            4TH  HIGHEST VALUE IS      0.41539 AT (  564892.25,  4191959.00,    84.00,    0.00)  DC      NA
            5TH  HIGHEST VALUE IS      0.41528 AT (  564991.81,  4191975.00,    93.00,    0.00)  DC      NA
            6TH  HIGHEST VALUE IS      0.40999 AT (  565289.25,  4192025.50,   107.00,    0.00)  DC      NA
            7TH  HIGHEST VALUE IS      0.40579 AT (  566100.00,  4191600.00,   141.00,    0.00)  DC      NA
            8TH  HIGHEST VALUE IS      0.40151 AT (  565000.00,  4192000.00,    98.00,    0.00)  DC      NA
            9TH  HIGHEST VALUE IS      0.40025 AT (  564800.00,  4192000.00,    81.00,    0.00)  DC      NA
           10TH  HIGHEST VALUE IS      0.39853 AT (  564941.88,  4191967.00,    90.00,    0.00)  DC      NA

ENGINES  1ST  HIGHEST VALUE IS      3.84870 AT (  564700.00,  4192000.00,    76.00,    0.00)  DC      NA
            2ND  HIGHEST VALUE IS      3.53602 AT (  564892.25,  4191959.00,    84.00,    0.00)  DC      NA
            3RD  HIGHEST VALUE IS      3.27953 AT (  564941.88,  4191967.00,    90.00,    0.00)  DC      NA
            4TH  HIGHEST VALUE IS      3.26003 AT (  565800.00,  4191200.00,   100.00,    0.00)  DC      NA
            5TH  HIGHEST VALUE IS      3.04483 AT (  564991.81,  4191975.00,    93.00,    0.00)  DC      NA
            6TH  HIGHEST VALUE IS      2.98473 AT (  565700.00,  4191200.00,    93.00,    0.00)  DC      NA
            7TH  HIGHEST VALUE IS      2.98317 AT (  564800.00,  4192000.00,    81.00,    0.00)  DC      NA
            8TH  HIGHEST VALUE IS      2.97792 AT (  565800.00,  4191000.00,    95.00,    0.00)  DC      NA
            9TH  HIGHEST VALUE IS      2.97363 AT (  565000.00,  4192000.00,    98.00,    0.00)  DC      NA
           10TH  HIGHEST VALUE IS      2.77403 AT (  564698.50,  4191908.75,    72.00,    0.00)  DC      NA



                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CANCER   IN MICROGRAMS/M**3                        **
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```
                                                                                    NETWORK
GROUP ID                      AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLABS  1ST HIGHEST VALUE IS      1.40721 AT (  564649.94,  4191752.00,    66.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      1.22284 AT (  564842.69,  4191950.00,    83.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      1.18222 AT (  564748.50,  4191916.75,    75.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      1.15929 AT (  564892.25,  4191959.00,    84.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      1.11440 AT (  564664.50,  4191903.50,    71.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      1.11327 AT (  564645.94,  4191801.25,    66.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      1.10436 AT (  564639.88,  4191852.00,    67.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      1.09749 AT (  564648.62,  4191891.75,    68.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      1.08111 AT (  564698.50,  4191908.75,    72.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      1.07704 AT (  564795.00,  4191930.25,    78.00,     0.00)  DC      NA


ALL_LABS 1ST HIGHEST VALUE IS      1.66586 AT (  564842.69,  4191950.00,    83.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      1.52469 AT (  564892.25,  4191959.00,    84.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      1.51437 AT (  564649.94,  4191752.00,    66.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      1.35467 AT (  564748.50,  4191916.75,    75.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      1.35454 AT (  564664.50,  4191903.50,    71.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      1.32243 AT (  564941.88,  4191967.00,    90.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      1.30911 AT (  564795.00,  4191930.25,    78.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      1.30720 AT (  564800.00,  4192000.00,    81.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      1.28749 AT (  564900.00,  4192000.00,    88.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      1.28517 AT (  564700.00,  4192000.00,    76.00,     0.00)  DC      NA


EXISTING 1ST HIGHEST VALUE IS      4.32794 AT (  564700.00,  4192000.00,    76.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      4.02594 AT (  564892.25,  4191959.00,    84.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      3.79466 AT (  565800.00,  4191200.00,   100.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      3.77533 AT (  564941.88,  4191967.00,    90.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      3.56674 AT (  564991.81,  4191975.00,    93.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      3.50535 AT (  565000.00,  4192000.00,    98.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      3.50218 AT (  566100.00,  4191400.00,   149.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      3.44352 AT (  564800.00,  4192000.00,    81.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      3.43255 AT (  565700.00,  4191200.00,    93.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      3.33136 AT (  565800.00,  4191000.00,    95.00,     0.00)  DC      NA




                   *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                   ** CONC OF CANCER   IN MICROGRAMS/M**3                      **

                                                                                    NETWORK
GROUP ID                      AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_A 1ST HIGHEST VALUE IS      1.33750 AT (  564649.94,  4191752.00,    66.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      1.04195 AT (  564645.94,  4191801.25,    66.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      1.02431 AT (  564639.88,  4191852.00,    67.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.98343 AT (  564648.62,  4191891.75,    68.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.95956 AT (  564664.50,  4191903.50,    71.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.92777 AT (  564748.50,  4191916.75,    75.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.89558 AT (  564600.00,  4191800.00,    65.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.89260 AT (  564698.50,  4191908.75,    72.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.82366 AT (  564600.00,  4191900.00,    67.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.76571 AT (  564842.69,  4191950.00,    83.00,     0.00)  DC      NA


NEWLAB_B 1ST HIGHEST VALUE IS      0.37343 AT (  564892.25,  4191959.00,    84.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.35155 AT (  564941.88,  4191967.00,    90.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.31040 AT (  564900.00,  4192000.00,    88.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.27918 AT (  564842.69,  4191950.00,    83.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.24170 AT (  564991.81,  4191975.00,    93.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.22282 AT (  564800.00,  4192100.00,    92.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.21179 AT (  564800.00,  4192000.00,    81.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.20102 AT (  564795.00,  4191930.25,    78.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.16811 AT (  565042.31,  4191983.00,    93.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.16561 AT (  565000.00,  4192000.00,    98.00,     0.00)  DC      NA


NEWLAB_C 1ST HIGHEST VALUE IS      0.14090 AT (  565141.94,  4191999.00,    97.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.13301 AT (  565191.50,  4192009.50,    97.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.11922 AT (  565241.19,  4192017.75,   102.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.11209 AT (  565100.00,  4192100.00,   107.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.10405 AT (  565000.00,  4192100.00,   111.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.10064 AT (  565100.00,  4192000.00,    96.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.10050 AT (  565289.25,  4192025.50,   107.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.09758 AT (  565090.81,  4191991.50,    96.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.09039 AT (  565000.00,  4192000.00,    98.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.08691 AT (  565339.88,  4192034.25,   108.00,     0.00)  DC      NA
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                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***

                  ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                    NETWORK
GROUP ID                    AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

NEWLAB_D 1ST HIGHEST VALUE IS    0.06819 AT (  565475.12,  4192018.00,    118.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.06152 AT (  565390.25,  4192042.25,    113.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.06039 AT (  565460.56,  4192039.50,    117.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.05708 AT (  565438.25,  4192048.75,    117.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.05125 AT (  565339.88,  4192034.25,    108.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.04373 AT (  565400.00,  4192100.00,    116.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.04272 AT (  565289.25,  4192025.50,    107.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.04011 AT (  565500.00,  4192100.00,    126.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.03291 AT (  565300.00,  4192100.00,    107.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.03244 AT (  565241.19,  4192017.75,    102.00,    0.00)  DC      NA

NEWLAB_E 1ST HIGHEST VALUE IS    0.24066 AT (  565200.00,  4191300.00,     80.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.22266 AT (  565326.25,  4191324.25,     84.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.21991 AT (  565226.19,  4191310.50,     81.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.21174 AT (  565176.31,  4191303.25,     79.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.19729 AT (  565276.06,  4191318.25,     82.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.19535 AT (  565376.81,  4191332.25,     87.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.17824 AT (  565300.00,  4191300.00,     82.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.17785 AT (  565400.00,  4191300.00,     84.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.17385 AT (  565127.75,  4191295.25,     77.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.17015 AT (  565426.81,  4191338.75,     88.00,    0.00)  DC      NA

NEWLAB_F 1ST HIGHEST VALUE IS    0.19800 AT (  565577.06,  4191362.50,     93.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.17067 AT (  565626.50,  4191370.25,     95.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.16118 AT (  565675.94,  4191381.00,     98.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.14232 AT (  565726.62,  4191386.25,    100.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.12677 AT (  565527.69,  4191354.50,     91.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.11756 AT (  565776.88,  4191394.00,    103.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.11284 AT (  565600.00,  4191300.00,     91.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.11137 AT (  565426.81,  4191338.75,     88.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.11056 AT (  565700.00,  4191300.00,     94.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.11015 AT (  565476.12,  4191347.00,     90.00,    0.00)  DC      NA


                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***

                  ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                    NETWORK
GROUP ID                    AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

NEWLAB_G 1ST HIGHEST VALUE IS    0.03435 AT (  565856.12,  4191409.75,    110.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.03241 AT (  565726.62,  4191386.25,    100.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.03017 AT (  565776.88,  4191394.00,    103.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.02612 AT (  565827.00,  4191402.25,    108.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.02481 AT (  565675.94,  4191381.00,     98.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.02277 AT (  566000.00,  4191300.00,    118.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.02258 AT (  566100.00,  4191400.00,    149.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.01897 AT (  566100.00,  4191600.00,    141.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.01788 AT (  565800.00,  4191300.00,    103.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.01745 AT (  566000.00,  4191200.00,    113.00,    0.00)  DC      NA

DAVISNEW 1ST HIGHEST VALUE IS    0.21809 AT (  565600.00,  4192100.00,    140.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.17249 AT (  565700.00,  4192100.00,    165.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.15086 AT (  565800.00,  4192000.00,    178.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS    0.13772 AT (  565600.00,  4192200.00,    158.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS    0.11977 AT (  565500.00,  4192100.00,    126.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS    0.11697 AT (  565900.00,  4192000.00,    182.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS    0.11321 AT (  565800.00,  4192100.00,    198.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS    0.10787 AT (  565500.00,  4192200.00,    136.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS    0.10063 AT (  565500.00,  4192300.00,    149.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS    0.09787 AT (  565400.00,  4192300.00,    131.00,    0.00)  DC      NA

STAN_NEW 1ST HIGHEST VALUE IS    0.49597 AT (  565800.00,  4192000.00,    178.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS    0.34478 AT (  565900.00,  4192000.00,    182.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS    0.29831 AT (  565700.00,  4192100.00,    165.00,    0.00)  DC      NA
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         4TH HIGHEST VALUE IS      0.25143 AT (  565600.00,  4192200.00,    158.00,     0.00) DC     NA
         5TH HIGHEST VALUE IS      0.21499 AT (  565600.00,  4192100.00,    140.00,     0.00) DC     NA
         6TH HIGHEST VALUE IS      0.20564 AT (  565600.00,  4192300.00,    168.00,     0.00) DC     NA
         7TH HIGHEST VALUE IS      0.20151 AT (  566000.00,  4192000.00,    224.00,     0.00) DC     NA
         8TH HIGHEST VALUE IS      0.19904 AT (  566100.00,  4191900.00,    236.00,     0.00) DC     NA
         9TH HIGHEST VALUE IS      0.19385 AT (  565800.00,  4192100.00,    198.00,     0.00) DC     NA
        10TH HIGHEST VALUE IS      0.19172 AT (  565700.00,  4192200.00,    181.00,     0.00) DC     NA



                     *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                  ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                        NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWENG    1ST HIGHEST VALUE IS      0.58975 AT (  565475.12,  4192018.00,    118.00,     0.00) DC     NA
          2ND HIGHEST VALUE IS      0.50997 AT (  565460.56,  4192039.50,    117.00,     0.00) DC     NA
          3RD HIGHEST VALUE IS      0.49285 AT (  565438.25,  4192048.75,    117.00,     0.00) DC     NA
          4TH HIGHEST VALUE IS      0.39512 AT (  565300.00,  4192100.00,    107.00,     0.00) DC     NA
          5TH HIGHEST VALUE IS      0.36972 AT (  565141.94,  4191999.00,     97.00,     0.00) DC     NA
          6TH HIGHEST VALUE IS      0.35878 AT (  565241.19,  4192017.75,    102.00,     0.00) DC     NA
          7TH HIGHEST VALUE IS      0.32418 AT (  565400.00,  4192100.00,    116.00,     0.00) DC     NA
          8TH HIGHEST VALUE IS      0.30644 AT (  565100.00,  4192000.00,     96.00,     0.00) DC     NA
          9TH HIGHEST VALUE IS      0.30159 AT (  565090.81,  4191991.50,     96.00,     0.00) DC     NA
         10TH HIGHEST VALUE IS      0.30005 AT (  565191.50,  4192009.50,     97.00,     0.00) DC     NA
```

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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh - Girton Hall Daycare Center          ***
*** Model Executed on 02/06/04 at 10:55:08 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Can-Girton.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Can-Girton.LST

   Met File - D:\Beest\UCBerk\10-03\met2\lbl-97a.asc

      Number of sources -        142
Number of source groups -          7
    Number of receptors -          1
```

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                                     *** POINT SOURCE DATA ***


           NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK      STACK    BUILDING EMISSION RATE
  SOURCE    PART.  (GRAMS/SEC)    X        Y        ELEV.   HEIGHT  TEMP.    EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
    ID     CATS.               (METERS) (METERS)  (METERS) (METERS) (DEG.K) (M/SEC)   (METERS)             BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8    0   0.44700E-04  564704.4 4191782.8   66.8    31.70   293.15    7.12      0.19      YES
  NWAF9       0   0.60100E-03  564718.8 4191791.2   66.8    29.57   293.15   16.48      0.74      YES
  WHSTK10     0   0.44700E-04  564724.4 4191826.0   66.8     8.60   293.15    7.12      0.34      YES
  MHSTK1      0   0.24000E-03  564794.4 4191795.8   74.8     7.61   293.15   17.25      0.34      YES
  MHSTK2      0   0.24000E-03  564798.6 4191843.0   74.8    10.89   293.15   17.25      0.29      YES
  MHSTK3      0   0.24000E-03  564794.1 4191843.0   74.8    10.89   293.15   17.25      0.48      YES
  MHSTK4      0   0.24000E-03  564800.9 4191787.2   74.8    15.61   293.15   17.25      0.33      YES
  MHSTK6      0   0.24000E-03  564801.3 4191808.2   74.8    10.94   293.15   17.25      0.34      YES
  KHSTK1      0   0.33000E-02  564761.1 4191879.8   72.7    18.45   293.15    1.28      2.76      YES
  KHSTK2      0   0.33000E-02  564759.4 4191891.8   72.7    18.45   293.15    1.28      2.76      YES
  KHSTK3      0   0.33000E-02  564732.4 4191877.5   72.7    18.45   293.15    1.28      2.76      YES
  KHSTK4      0   0.33000E-02  564731.4 4191889.0   72.7    18.45   293.15    1.28      2.76      YES
  BHSTK1      0   0.45600E-03  564678.9 4191889.0   67.4    27.85   293.15    2.78      1.26      YES
  BHSTK2      0   0.45600E-03  564675.0 4191896.8   67.4    29.68   293.15    2.78      1.26      YES
  BHSTK3      0   0.45600E-03  564704.5 4191898.0   67.4    29.68   293.15    2.78      1.26      YES
  BHSTK4      0   0.45600E-03  564707.4 4191887.8   67.4    33.34   293.15    2.78      0.37      YES
  BHSTK5      0   0.45600E-03  564691.6 4191888.0   67.4    33.34   293.15    2.78      0.37      YES
  VLSBSTK1    0   0.77100E-03  564933.6 4191633.2   64.4    27.04   293.15    3.97      1.22      YES
  VLSBSTK2    0   0.77100E-03  564954.0 4191566.5   64.4    27.04   293.15    3.97      1.22      YES
  VLSBSTK3    0   0.77100E-03  565051.3 4191594.8   64.4    27.04   293.15    3.97      1.22      YES
  VLSBSTK4    0   0.77100E-03  565030.6 4191662.2   64.4    27.04   293.15    3.97      1.22      YES
  LSASTK1     0   0.16600E-02  564892.2 4191637.2   64.4    28.31   293.15    5.18      1.22      YES
  LSASTK2     0   0.16600E-02  564875.9 4191632.8   64.4    28.31   293.15    5.18      1.22      YES
  LSASTK3     0   0.16600E-02  564907.6 4191580.5   64.4    28.31   293.15    5.18      1.22      YES
  LSASTK4     0   0.16600E-02  564897.1 4191578.0   64.4    28.31   293.15    5.18      1.22      YES
  LSASTK5     0   0.16600E-02  564908.6 4191576.2   64.4    28.31   293.15    5.18      1.22      YES
  LSASTK6     0   0.16600E-02  564899.1 4191573.5   64.4    28.31   293.15    5.18      1.22      YES
  LSASTK7     0   0.16600E-02  564900.8 4191572.2   64.4    28.31   293.15    5.18      0.30      YES
  LEWHSTK1    0   0.63700E-03  565605.8 4191772.0  106.7    12.80   293.15    3.11      0.36      YES
  LEWHSTK2    0   0.63700E-03  565591.5 4191786.0  106.7    12.80   293.15    3.11      0.36      YES
  LEWHSTK3    0   0.63700E-03  565585.9 4191792.2  106.7    12.80   293.15    3.11      0.36      YES
  LEWHSTK4    0   0.63700E-03  565583.1 4191800.0  106.7    12.80   293.15    3.11      0.36      YES
  LEWHSTK5    0   0.63700E-03  565598.1 4191787.8  106.7    12.80   293.15    3.11      0.36      YES
  LEWHSTK6    0   0.63700E-03  565619.4 4191775.8  106.7    12.80   293.15    3.11      0.36      YES
  LEWHSTK7    0   0.63700E-03  565608.8 4191787.2  106.7    12.80   293.15    3.11      0.36      YES
  LEWHSTK8    0   0.63700E-03  565597.6 4191800.5  106.7    12.80   293.15    3.11      0.30      YES
  LEWHSTK9    0   0.63700E-03  565593.3 4191808.2  106.7    12.80   293.15    3.11      0.36      YES
  LATHSTK1    0   0.27200E-02  565555.1 4191799.2  104.6    42.37   293.15    6.28      0.34      YES
  LATHSTK2    0   0.27200E-02  565561.1 4191812.0  104.6    36.88   293.15    6.28      0.70      YES
  LATHSTK3    0   0.27200E-02  565531.6 4191800.2  104.6    36.88   293.15    6.28      0.48      YES
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                                     *** POINT SOURCE DATA ***


           NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK      STACK    BUILDING EMISSION RATE
  SOURCE    PART.  (GRAMS/SEC)    X        Y        ELEV.   HEIGHT  TEMP.    EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
    ID     CATS.               (METERS) (METERS)  (METERS) (METERS) (DEG.K) (M/SEC)   (METERS)             BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  LATHSTK4    0   0.27200E-02  565515.1 4191799.5  104.6    37.19   293.15    6.28      0.96      YES
  LATHSTK5    0   0.27200E-02  565539.7 4191794.2  104.6    42.37   293.15    6.28      0.70      YES
  LATHSTK6    0   0.27200E-02  565527.3 4191776.0  104.6    38.40   293.15    6.28      0.74      YES
  LATHSTK7    0   0.27200E-02  565544.9 4191781.5  104.6    38.40   293.15    6.28      0.31      YES
  LATHSTK8    0   0.27200E-02  565562.3 4191787.0  104.6    38.40   293.15    6.28      0.70      YES
  TANHSTKA    0   0.23500E-02  565492.1 4191793.8  100.6    39.32   293.15    2.94      1.69      YES
  TANHSTKB    0   0.23500E-02  565496.8 4191794.0  100.6    39.32   293.15    2.94      1.69      YES
  TANHSTKC    0   0.23500E-02  565494.1 4191787.2  100.6    39.32   293.15    2.94      1.69      YES
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TANHSTKD       0   0.23500E-02  565499.1 4191788.2  100.6   39.32   293.15    2.94    1.69      YES
HHSTKA         0   0.26000E-02  565540.8 4191749.5  103.6   20.12   293.15    4.15    1.52      YES
HHSTKB         0   0.26000E-02  565565.6 4191756.8  103.6   20.12   293.15    4.15    1.52      YES
HHSTKC         0   0.26000E-02  565576.8 4191717.8  103.6   20.12   293.15    4.15    1.52      YES
HHSTKD         0   0.26000E-02  565553.2 4191710.5  103.6   20.12   293.15    4.15    1.52      YES
HHSTKE         0   0.26000E-02  565543.4 4191746.5  103.6   20.12   293.15    4.15    0.81      YES
GHSTK1         0   0.36700E-03  565507.1 4191756.0  103.6   16.06   293.15    5.92    0.30      YES
GHSTK2         0   0.36700E-03  565510.6 4191744.8  103.6   16.06   293.15    5.92    0.25      YES
GHSTK3         0   0.36700E-03  565512.4 4191739.0  103.6   16.37   293.15    5.92    0.30      YES
GHSTK4         0   0.36700E-03  565514.7 4191737.8  103.6   15.91   293.15    5.92    0.31      YES
GHSTK5         0   0.36700E-03  565514.9 4191732.2  103.6   16.06   293.15    5.92    0.30      YES
GHSTK6         0   0.36700E-03  565500.2 4191755.2  103.6   16.12   293.15    5.92    0.30      YES
GHSTK7         0   0.36700E-03  565501.1 4191753.0  103.6   16.37   293.15    5.92    0.84      YES
GHSTK8         0   0.36700E-03  565503.7 4191744.2  103.6   16.00   293.15    5.92    0.30      YES
GHSTK9         0   0.36700E-03  565505.2 4191740.2  103.6   16.37   293.15    5.92    0.26      YES
GHSTK10        0   0.36700E-03  565506.9 4191735.2  103.6   16.06   293.15    5.92    0.30      YES
GHSTK11        0   0.36700E-03  565509.7 4191728.2  103.6   16.22   293.15    5.92    0.30      YES
GHSTK12        0   0.36700E-03  565509.0 4191725.5  103.6   16.06   293.15    5.92    0.30      YES
GHSTK13        0   0.36700E-03  565516.9 4191725.8  103.6   15.91   293.15    5.92    0.40      YES
CHSTK1         0   0.86900E-04  565393.9 4192008.8  110.3   26.85   293.15    2.00    1.00      YES
HESSTK1        0   0.73300E-03  565234.6 4191926.2   98.2   15.39   293.15    2.00    1.00      YES
HILSTK1        0   0.72100E-03  564874.6 4191815.0   80.4   14.96   293.15    2.00    1.00      YES
MULSTK1        0   0.53300E-05  564779.7 4191737.8   74.4   17.24   293.15    2.00    1.00      YES
WELSTK1        0   0.13600E-04  564933.7 4191795.2   81.7    5.89   293.15    2.00    1.00      YES
PRINTA         0   0.10400E-03  564584.7 4191553.2   60.0    8.91   293.15    2.70    0.84      YES
PRINTB         0   0.10400E-03  564614.4 4191520.8   60.0    8.91   293.15    2.70    0.84      YES
PRINTC         0   0.10400E-03  564643.1 4191525.5   60.0    8.91   293.15    2.70    0.60      YES
COGEN          0   0.97700E+00  564876.0 4191492.0   71.9   12.77   430.37   10.45    2.28      YES
BOILER#2       0   0.12440E-01  564863.6 4191499.5   71.9    8.80   522.82    7.97    1.52      YES
BOILER#3       0   0.47000E-01  564881.0 4191505.8   71.9    8.80   554.11   10.53    1.52      YES
BOILER#4       0   0.56800E-01  564885.8 4191495.8   71.9    8.80   566.65   12.63    1.52      YES
POURING        0   0.22400E-02  564847.8 4191467.0   70.1   14.94   293.15    4.62    0.56      YES
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*** POINT SOURCE DATA ***

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            NUMBER EMISSION RATE                   BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)    X        Y       ELEV.  HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
     ID      CATS.              (METERS) (METERS) (METERS)(METERS)(DEG.K)   (M/SEC)  (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   ENG_62      0   0.47241E-02  565567.6 4191086.5   85.1    4.57   800.37  146.01    0.13      NO
   ENG_63      0   0.23621E-02  564668.2 4191897.5   70.2    4.57   799.85  152.00    0.13      YES
   ENG_64      0   0.72350E-03  565452.9 4191687.0   98.2    3.05   817.07   58.47    0.08      YES
   ENG_105     0   0.74200E-01  564939.1 4191457.8   71.1    4.57   810.96   70.10    0.23      YES
   ENG_106     0   0.62205E-01  564991.6 4191614.5   73.6   30.48   810.96   70.10    0.20      YES
   ENG_107     0   0.49776E-01  564767.4 4191906.8   76.2    0.00   810.96   70.10    0.18      YES
   ENG_108     0   0.49776E-01  564930.6 4191564.2   68.8    7.62   810.96   70.10    0.18      YES
   ENG_109     0   0.16596E-01  565615.8 4191801.2  111.7    3.05   810.96   70.10    0.15      YES
   ENG_110     0   0.82858E-02  564655.9 4191874.5   68.4    4.57   810.96   70.10    0.10      YES
   ENG_111     0   0.23806E-01  565091.1 4191757.8   78.9    3.05   810.96   70.10    0.11      YES
   ENG_112     0   0.20714E-01  565542.8 4191208.2   85.7    3.05   810.93   70.10    0.10      NO
   ENG_113     0   0.20714E-01  565673.6 4191194.8   92.0    3.05   810.93   70.10    0.10      NO
   ENG_114     0   0.20714E-01  565601.4 4191014.2   86.0    3.05   810.93   70.10    0.10      NO
   ENG_115     0   0.20714E-01  565702.9 4190991.8   91.4    3.05   810.93   70.10    0.10      NO
   ENG_117     0   0.20714E-01  565575.9 4191609.0   99.3    3.05   810.96   70.10    0.10      YES
   ENG_118     0   0.98935E-02  564654.8 4191890.5   68.6    4.57   810.96   70.10    0.13      YES
   ENG_119     0   0.14531E-01  564728.8 4191771.0   70.5    4.57   810.96   70.10    0.08      YES
   ENG_120     0   0.10450E-01  565318.0 4191422.5   86.1    3.05   810.96   70.10    0.08      YES
   ENG_121     0   0.10388E-01  565926.2 4191443.0  118.9    3.05   810.93   70.10    0.08      NO
   ENG_123     0   0.12800E-01  565259.4 4191652.8   88.3    3.05   810.96   70.10    0.08      YES
   ENG_125     0   0.41058E-01  564811.2 4191460.8   67.7    3.05   810.96   70.10    0.08      YES
   ENG_126     0   0.33143E-02  565137.9 4191441.5   77.6    0.00   810.96   70.10    0.08      YES
   ENG_128     0   0.41429E-02  565469.2 4191955.2  109.8    3.05   810.96   70.10    0.05      YES
   ENG_129     0   0.41429E-02  565383.1 4191740.2   97.0    2.44   810.96   70.10    0.05      YES
   ENG_130     0   0.25692E-02  565533.3 4191713.5   98.9    2.44   815.40  134.54    0.08      YES
   ENG_131     0   0.72350E-03  564970.3 4191484.2   71.3    1.83   817.07   58.47    0.08      YES
   ENG_132     0   0.72350E-03  564800.3 4191781.8   74.3    1.83   817.07   58.47    0.08      YES
   E134_133    0   0.18674E-01  565380.0 4191457.8  104.3    3.05   769.29  135.05    0.13      YES
   NEWLAB_A    0   0.53000E-01  564808.8 4191708.2   70.5    6.10   293.15    3.97    1.00      YES
   NEWLAB_B    0   0.10800E-01  565047.0 4191787.5   77.9    6.10   293.15    3.97    1.00      YES
   NEWLAB_C    0   0.59900E-02  565301.9 4191832.0   90.7    6.10   293.15    3.97    1.00      YES
   NEWLAB_D    0   0.31900E-02  565490.2 4191861.5  106.7    6.10   293.15    3.97    1.00      YES
   NEWLAB_E    0   0.85200E-02  565089.5 4191460.8   73.6    6.10   293.15    3.97    1.00      YES
   NEWLAB_F    0   0.67500E-02  565368.8 4191521.8   86.7    6.10   293.15    3.97    1.00      YES
   NEWLAB_G    0   0.19400E-02  565641.7 4191569.5  102.4    6.10   293.15    3.97    1.00      YES
   ENG_STNL    0   0.69563E-02  565539.1 4191905.2  114.2    2.13   769.26   76.14    0.18      YES
   ENG_DVS     0   0.69563E-02  565364.1 4191990.5  109.8    2.13   769.26   76.14    0.18      YES
   ENG_MCCN    0   0.27825E-02  565176.4 4191928.8   93.8    2.13   810.93   59.08    0.13      YES
   ENG_SRB1    0   0.27825E-02  564595.2 4191928.2   67.3    2.13   810.93   59.08    0.13      YES
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   ENGNULAB     0   0.69563E-02  564559.2 4191851.0   64.9    2.13   769.26    76.14     0.18      YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ENGMUSIC	0	0.27825E-02	565510.9	4191488.8	94.8	2.13	810.93	59.08	0.13	YES	
ENG_UNT1	0	0.27825E-02	565595.6	4191185.0	87.9	2.13	810.93	59.08	0.13	NO	
ENG_UNT2	0	0.27825E-02	565647.0	4191033.2	88.8	2.13	810.93	59.08	0.13	NO	
ENG_UNT3	0	0.27825E-02	565112.1	4191138.8	72.6	2.13	810.93	59.08	0.13	NO	
ENG116NU	0	0.58900E-02	564775.8	4191177.5	63.2	2.13	810.93	87.63	0.15	NO	
NEWSTAN1	0	0.69300E-02	565533.9	4191904.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN2	0	0.69300E-02	565535.5	4191899.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN3	0	0.69300E-02	565537.2	4191894.5	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN4	0	0.69300E-02	565538.8	4191889.8	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN5	0	0.69300E-02	565545.4	4191891.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN6	0	0.69300E-02	565543.6	4191896.2	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN7	0	0.69300E-02	565542.0	4191901.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN8	0	0.69300E-02	565540.3	4191905.8	112.9	41.90	293.15	17.25	1.32	YES	
NEWDAVS1	0	0.66300E-02	565340.6	4191981.0	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS2	0	0.66300E-02	565338.7	4191980.8	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS3	0	0.66300E-02	565329.5	4191986.8	109.2	33.79	293.15	13.62	0.86	YES	
NEWDAVS4	0	0.66300E-02	565328.4	4191986.2	109.2	33.79	293.15	13.62	0.86	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.24000E-03	564821.2	4191842.8	74.8	6.95	0.07	2.42	
PAINT1	0	0.31900E-03	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.31900E-03	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.31900E-03	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.31900E-03	564865.7	4191751.0	77.0	4.57	3.54	4.25	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID   SOURCE IDs


```
 ALL     WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
         KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
         LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
         LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
         TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
         GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
         WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
         PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
         ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
         ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133, NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F,
NEWLAB_G,
```

ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1, ENG_UNT2, ENG_UNT3, ENG116NU, NEWSTAN1,
NEWSTAN2,

          NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  GEN   ENG_62 , ENG_63 , ENG_64 , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
ENG_113 ,

          ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 , ENG_128 ,
ENG_129 ,

          ENG_130 , ENG_131 , ENG_132 , E134_133, ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1,
ENG_UNT2,

          ENG_UNT3, ENG116NU,

  LABS   WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1 , MHSTK2 , MHSTK3 , MHSTK4 , MHSTK5 , MHSTK6 , KHSTK1 , KHSTK2 , KHSTK3
,

          KHSTK4 , BHSTK1 , BHSTK2 , BHSTK3 , BHSTK4 , BHSTK5 , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID   SOURCE IDs

          TANHSTKC, TANHSTKD, HHSTKA , HHSTKB , HHSTKC , HHSTKD , HHSTKE , GHSTK1 , GHSTK2 , GHSTK3 , GHSTK4 , GHSTK5
,

          GHSTK6 , GHSTK7 , GHSTK8 , GHSTK9 , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1 , HESSTK1 , HILSTK1 ,
MULSTK1 ,

          WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3,
NEWSTAN4,

          NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

  OTHER   PRINTA , PRINTB , PRINTC , POURING , PAINT1 , PAINT2 , PAINT3 , PAINT4 ,

  BOILERS   BOILER#2, BOILER#3, BOILER#4,

  COGEN   COGEN   ,

                        *** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

                    ** CONC OF CANCER   IN MICROGRAMS/M**3   **

                                                                                           NETWORK
  GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
 -

  ALL   1ST HIGHEST VALUE IS   5.22741 AT (565700.06, 4191711.25,   109.42,   0.00) DC   NA
         2ND HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         3RD HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         4TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         5TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         6TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         7TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         8TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         9TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
        10TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)

```
GEN     1ST HIGHEST VALUE IS        3.18407 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        2ND HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        5TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        6TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        7TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        8TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        9TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       10TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)

LABS    1ST HIGHEST VALUE IS        1.61721 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        2ND HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        5TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        6TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        7TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        8TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        9TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       10TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                       NETWORK
GROUP ID                       AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


COMBUST 1ST HIGHEST VALUE IS        0.40636 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        2ND HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        5TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        6TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        7TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        8TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        9TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       10TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)

OTHER   1ST HIGHEST VALUE IS        0.02052 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        2ND HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        5TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        6TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        7TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        8TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        9TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       10TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)

BOILERS 1ST HIGHEST VALUE IS        0.07603 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        2ND HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        5TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        6TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        7TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        8TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        9TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       10TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                       NETWORK
GROUP ID                       AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


COGEN   1ST HIGHEST VALUE IS        0.33033 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        2ND HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS        0.00000 AT (       0.00,        0.00,        0.00,      0.00)
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 5TH HIGHEST VALUE IS         0.00000 AT (       0.00,       0.00,       0.00,       0.00)
 6TH HIGHEST VALUE IS         0.00000 AT (       0.00,       0.00,       0.00,       0.00)
 7TH HIGHEST VALUE IS         0.00000 AT (       0.00,       0.00,       0.00,       0.00)
 8TH HIGHEST VALUE IS         0.00000 AT (       0.00,       0.00,       0.00,       0.00)
 9TH HIGHEST VALUE IS         0.00000 AT (       0.00,       0.00,       0.00,       0.00)
10TH HIGHEST VALUE IS         0.00000 AT (       0.00,       0.00,       0.00,       0.00)
```

```
*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh - MEI                          ***
*** Model Executed on 02/06/04 at 10:55:17 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Can-MEI.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Can-MEI.LST

   Met File - D:\Beest\UCBerk\10-03\met2\lbl-97a.asc

      Number of sources -        142
Number of source groups -          6
    Number of receptors -          1



                           *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
     SOURCE  PART.  (GRAMS/SEC)    X        Y     ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
       ID    CATS.             (METERS) (METERS) (METERS)(METERS)(DEG.K) (M/SEC)  (METERS)                 BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   WHSTK1_8    0   0.44700E-04  564704.4 4191782.8   66.8   31.70  293.15     7.12    0.19     YES
   NWAF9       0   0.60100E-03  564718.8 4191791.2   66.8   29.57  293.15    16.48    0.74     YES
   WHSTK10     0   0.44700E-04  564724.4 4191826.0   66.8    8.60  293.15     7.12    0.34     YES
   MHSTK1      0   0.24000E-03  564794.4 4191795.8   74.8    7.61  293.15    17.25    0.34     YES
   MHSTK2      0   0.24000E-03  564798.6 4191843.0   74.8   10.89  293.15    17.25    0.29     YES
   MHSTK3      0   0.24000E-03  564794.1 4191843.0   74.8   10.89  293.15    17.25    0.48     YES
   MHSTK4      0   0.24000E-03  564800.9 4191787.2   74.8   15.61  293.15    17.25    0.33     YES
   MHSTK6      0   0.24000E-03  564801.3 4191808.2   74.8   10.94  293.15    17.25    0.34     YES
   KHSTK1      0   0.33000E-02  564761.1 4191879.8   72.7   18.45  293.15     1.28    2.76     YES
   KHSTK2      0   0.33000E-02  564759.4 4191891.8   72.7   18.45  293.15     1.28    2.76     YES
   KHSTK3      0   0.33000E-02  564732.4 4191877.5   72.7   18.45  293.15     1.28    2.76     YES
   KHSTK4      0   0.33000E-02  564731.4 4191889.0   72.7   18.45  293.15     1.28    2.76     YES
   BHSTK1      0   0.45600E-03  564678.9 4191889.0   67.4   27.85  293.15     2.78    1.26     YES
   BHSTK2      0   0.45600E-03  564675.0 4191896.8   67.4   29.68  293.15     2.78    1.26     YES
   BHSTK3      0   0.45600E-03  564704.5 4191898.0   67.4   29.68  293.15     2.78    1.26     YES
   BHSTK4      0   0.45600E-03  564707.4 4191887.8   67.4   33.34  293.15     2.78    0.37     YES
   BHSTK5      0   0.45600E-03  564691.6 4191888.0   67.4   33.34  293.15     2.78    0.37     YES
   VLSBSTK1    0   0.77100E-03  564933.6 4191633.2   64.4   27.04  293.15     3.97    1.22     YES
   VLSBSTK2    0   0.77100E-03  564954.0 4191566.5   64.4   27.04  293.15     3.97    1.22     YES
   VLSBSTK3    0   0.77100E-03  565051.3 4191594.8   64.4   27.04  293.15     3.97    1.22     YES
   VLSBSTK4    0   0.77100E-03  565030.6 4191662.2   64.4   27.04  293.15     3.97    1.22     YES
   LSASTK1     0   0.16600E-02  564892.2 4191637.2   64.4   28.31  293.15     5.18    1.22     YES
   LSASTK2     0   0.16600E-02  564875.9 4191632.8   64.4   28.31  293.15     5.18    1.22     YES
   LSASTK3     0   0.16600E-02  564907.6 4191580.5   64.4   28.31  293.15     5.18    1.22     YES
   LSASTK4     0   0.16600E-02  564897.1 4191578.0   64.4   28.31  293.15     5.18    1.22     YES
   LSASTK5     0   0.16600E-02  564908.6 4191576.2   64.4   28.31  293.15     5.18    1.22     YES
   LSASTK6     0   0.16600E-02  564899.1 4191573.5   64.4   28.31  293.15     5.18    1.22     YES
   LSASTK7     0   0.16600E-02  564900.8 4191572.2   64.4   28.31  293.15     5.18    0.30     YES
   LEWHSTK1    0   0.63700E-03  565605.8 4191772.0  106.7   12.80  293.15     3.11    0.36     YES
   LEWHSTK2    0   0.63700E-03  565591.5 4191786.0  106.7   12.80  293.15     3.11    0.36     YES
   LEWHSTK3    0   0.63700E-03  565585.9 4191792.2  106.7   12.80  293.15     3.11    0.36     YES
   LEWHSTK4    0   0.63700E-03  565583.1 4191800.0  106.7   12.80  293.15     3.11    0.36     YES
   LEWHSTK5    0   0.63700E-03  565598.1 4191787.8  106.7   12.80  293.15     3.11    0.36     YES
   LEWHSTK6    0   0.63700E-03  565619.4 4191775.8  106.7   12.80  293.15     3.11    0.36     YES
   LEWHSTK7    0   0.63700E-03  565608.8 4191787.2  106.7   12.80  293.15     3.11    0.36     YES
   LEWHSTK8    0   0.63700E-03  565597.6 4191800.5  106.7   12.80  293.15     3.11    0.30     YES
   LEWHSTK9    0   0.63700E-03  565593.3 4191808.2  106.7   12.80  293.15     3.11    0.36     YES
   LATHSTK1    0   0.27200E-02  565555.1 4191799.2  104.6   42.37  293.15     6.28    0.34     YES
   LATHSTK2    0   0.27200E-02  565561.1 4191812.0  104.6   36.88  293.15     6.28    0.70     YES
   LATHSTK3    0   0.27200E-02  565531.6 4191800.2  104.6   36.88  293.15     6.28    0.48     YES


                           *** POINT SOURCE DATA ***


             NUMBER EMISSION RATE                BASE    STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
     SOURCE  PART.  (GRAMS/SEC)    X        Y     ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
       ID    CATS.             (METERS) (METERS) (METERS)(METERS)(DEG.K) (M/SEC)  (METERS)                 BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   LATHSTK4    0   0.27200E-02  565515.1 4191799.5  104.6   37.19  293.15     6.28    0.96     YES
   LATHSTK5    0   0.27200E-02  565539.7 4191794.2  104.6   42.37  293.15     6.28    0.70     YES
   LATHSTK6    0   0.27200E-02  565527.3 4191776.0  104.6   38.40  293.15     6.28    0.74     YES
   LATHSTK7    0   0.27200E-02  565544.9 4191781.5  104.6   38.40  293.15     6.28    0.31     YES
   LATHSTK8    0   0.27200E-02  565562.3 4191787.0  104.6   38.40  293.15     6.28    0.70     YES
   TANHSTKA    0   0.23500E-02  565492.1 4191793.2  100.6   39.32  293.15     2.94    1.69     YES
   TANHSTKB    0   0.23500E-02  565496.8 4191794.0  100.6   39.32  293.15     2.94    1.69     YES
   TANHSTKC    0   0.23500E-02  565494.1 4191787.2  100.6   39.32  293.15     2.94    1.69     YES
```

```
TANHSTKD        0    0.23500E-02  565499.1 4191788.2  100.6   39.32  293.15    2.94     1.69     YES
HHSTKA          0    0.26000E-02  565540.8 4191749.5  103.6   20.12  293.15    4.15     1.52     YES
HHSTKB          0    0.26000E-02  565565.6 4191756.8  103.6   20.12  293.15    4.15     1.52     YES
HHSTKC          0    0.26000E-02  565576.8 4191717.8  103.6   20.12  293.15    4.15     1.52     YES
HHSTKD          0    0.26000E-02  565553.2 4191710.5  103.6   20.12  293.15    4.15     1.52     YES
HHSTKE          0    0.26000E-02  565543.4 4191746.5  103.6   20.12  293.15    4.15     0.81     YES
GHSTK1          0    0.36700E-03  565507.1 4191756.0  103.6   16.06  293.15    5.92     0.30     YES
GHSTK2          0    0.36700E-03  565510.6 4191744.8  103.6   16.06  293.15    5.92     0.25     YES
GHSTK3          0    0.36700E-03  565512.4 4191739.0  103.6   16.37  293.15    5.92     0.30     YES
GHSTK4          0    0.36700E-03  565514.7 4191737.8  103.6   15.91  293.15    5.92     0.31     YES
GHSTK5          0    0.36700E-03  565514.9 4191732.2  103.6   16.06  293.15    5.92     0.30     YES
GHSTK6          0    0.36700E-03  565500.2 4191755.2  103.6   16.12  293.15    5.92     0.30     YES
GHSTK7          0    0.36700E-03  565501.1 4191753.0  103.6   16.37  293.15    5.92     0.84     YES
GHSTK8          0    0.36700E-03  565503.7 4191744.2  103.6   16.00  293.15    5.92     0.30     YES
GHSTK9          0    0.36700E-03  565505.2 4191740.2  103.6   16.37  293.15    5.92     0.26     YES
GHSTK10         0    0.36700E-03  565506.9 4191735.2  103.6   16.06  293.15    5.92     0.30     YES
GHSTK11         0    0.36700E-03  565509.7 4191728.2  103.6   16.22  293.15    5.92     0.30     YES
GHSTK12         0    0.36700E-03  565509.0 4191725.5  103.6   16.06  293.15    5.92     0.30     YES
GHSTK13         0    0.36700E-03  565516.9 4191725.8  103.6   15.91  293.15    5.92     0.40     YES
CHSTK1          0    0.86900E-04  565393.9 4192008.8  110.3   26.85  293.15    2.00     1.00     YES
HESSTK1         0    0.73300E-03  565234.6 4191926.2   98.2   15.39  293.15    2.00     1.00     YES
HILSTK1         0    0.72100E-03  564874.6 4191815.0   80.4   14.96  293.15    2.00     1.00     YES
MULSTK1         0    0.53300E-05  564779.7 4191737.8   74.4   17.24  293.15    2.00     1.00     YES
WELSTK1         0    0.13600E-04  564933.7 4191795.2   81.7    5.89  293.15    2.00     1.00     YES
PRINTA          0    0.10400E-03  564584.7 4191553.2   60.0    8.91  293.15    2.70     0.84     YES
PRINTB          0    0.10400E-03  564614.4 4191520.8   60.0    8.91  293.15    2.70     0.84     YES
PRINTC          0    0.10400E-03  564643.1 4191525.5   60.0    8.91  293.15    2.70     0.60     YES
COGEN           0    0.97700E+00  564876.0 4191492.0   71.9   12.77  430.37   10.45     2.28     YES
BOILER#2        0    0.12440E-01  564863.6 4191499.5   71.9    8.80  522.82    7.97     1.52     YES
BOILER#3        0    0.47000E-01  564881.0 4191505.8   71.9    8.80  554.11   10.53     1.52     YES
BOILER#4        0    0.56800E-01  564885.8 4191495.8   71.9    8.80  566.65   12.63     1.52     YES
POURING         0    0.22400E-02  564847.8 4191467.0   70.1   14.94  293.15    4.62     0.56     YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ENG_62	0	0.47241E-02	565567.6	4191086.5	85.1	4.57	800.37	146.01	0.13	NO	
ENG_63	0	0.23621E-02	564668.2	4191897.5	70.2	4.57	799.85	152.00	0.13	YES	
ENG_64	0	0.72350E-03	565452.9	4191687.0	98.2	3.05	817.07	58.47	0.08	YES	
ENG_105	0	0.74200E-01	564939.1	4191457.8	71.1	4.57	810.96	70.10	0.23	YES	
ENG_106	0	0.62205E-01	564991.6	4191614.5	73.6	30.48	810.96	70.10	0.20	YES	
ENG_107	0	0.49776E-01	564767.4	4191906.8	76.2	0.00	810.96	70.10	0.18	YES	
ENG_108	0	0.49776E-01	564930.6	4191564.2	68.8	7.62	810.96	70.10	0.18	YES	
ENG_109	0	0.16596E-01	565615.8	4191801.2	111.7	3.05	810.96	70.10	0.15	YES	
ENG_110	0	0.82858E-02	564655.9	4191874.5	68.4	4.57	810.96	70.10	0.10	YES	
ENG_111	0	0.23806E-01	565091.1	4191757.8	78.9	3.05	810.96	70.10	0.11	YES	
ENG_112	0	0.20714E-01	565542.8	4191208.2	85.7	3.05	810.93	70.10	0.10	NO	
ENG_113	0	0.20714E-01	565673.6	4191194.8	92.0	3.05	810.93	70.10	0.10	NO	
ENG_114	0	0.20714E-01	565601.4	4191014.2	86.0	3.05	810.93	70.10	0.10	NO	
ENG_115	0	0.20714E-01	565702.9	4190991.8	91.4	3.05	810.93	70.10	0.10	NO	
ENG_117	0	0.20714E-01	565575.9	4191609.0	99.3	3.05	810.96	70.10	0.10	YES	
ENG_118	0	0.98935E-02	564654.8	4191890.5	68.6	4.57	810.96	70.10	0.13	YES	
ENG_119	0	0.14531E-01	564728.8	4191771.0	70.5	4.57	810.96	70.10	0.08	YES	
ENG_120	0	0.10450E-01	565318.0	4191422.5	86.1	3.05	810.96	70.10	0.08	YES	
ENG_121	0	0.10388E-01	565926.2	4191443.0	118.9	3.05	810.93	70.10	0.08	NO	
ENG_123	0	0.12800E-01	565259.4	4191652.8	88.3	3.05	810.96	70.10	0.08	YES	
ENG_125	0	0.41058E-01	564811.2	4191460.8	67.7	3.05	810.96	70.10	0.08	YES	
ENG_126	0	0.33143E-02	565137.9	4191441.5	77.6	0.00	810.96	70.10	0.08	YES	
ENG_128	0	0.41429E-02	565469.2	4191955.2	109.8	3.05	810.96	70.10	0.05	YES	
ENG_129	0	0.41429E-02	565383.1	4191740.2	97.0	2.44	810.96	70.10	0.05	YES	
ENG_130	0	0.25692E-02	565533.3	4191713.5	98.9	2.44	815.40	134.54	0.08	YES	
ENG_131	0	0.72350E-03	564970.3	4191484.2	71.3	1.83	817.07	58.47	0.08	YES	
ENG_132	0	0.72350E-03	564800.3	4191781.8	74.3	1.83	817.07	58.47	0.08	YES	
E134_133	0	0.18674E-01	565380.0	4191453.0	104.3	3.05	769.29	135.05	0.13	YES	
NEWLAB_A	0	0.53000E-01	564808.8	4191708.2	70.5	6.10	293.15	3.97	1.00	YES	
NEWLAB_B	0	0.10800E-01	565047.0	4191787.5	77.9	6.10	293.15	3.97	1.00	YES	
NEWLAB_C	0	0.59900E-02	565301.9	4191832.0	90.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_D	0	0.31900E-02	565490.2	4191861.5	106.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_E	0	0.85200E-02	565089.5	4191460.8	73.6	6.10	293.15	3.97	1.00	YES	
NEWLAB_F	0	0.67500E-02	565368.8	4191521.8	86.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_G	0	0.19400E-02	565641.7	4191569.5	102.4	6.10	293.15	3.97	1.00	YES	
ENG_STNL	0	0.69563E-02	565539.1	4191905.2	114.2	2.13	769.26	76.14	0.18	YES	
ENG_DVS	0	0.69563E-02	565364.1	4191990.5	109.8	2.13	769.26	76.14	0.18	YES	
ENG_MCCN	0	0.27825E-02	565176.4	4191928.8	93.8	2.13	810.93	59.08	0.13	YES	
ENG_SRB1	0	0.27825E-02	564595.2	4191928.2	67.3	2.13	810.93	59.08	0.13	YES	

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   ENGNULAB     0   0.69563E-02  564559.2 4191851.0   64.9    2.13  769.26   76.14     0.18     YES
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*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ENGMUSIC	0	0.27825E-02	565510.9	4191488.8	94.8	2.13	810.93	59.08	0.13	YES	
ENG_UNT1	0	0.27825E-02	565595.6	4191185.0	87.9	2.13	810.93	59.08	0.13	NO	
ENG_UNT2	0	0.27825E-02	565647.0	4191033.2	88.8	2.13	810.93	59.08	0.13	NO	
ENG_UNT3	0	0.27825E-02	565112.1	4191138.8	72.6	2.13	810.93	59.08	0.13	NO	
ENG116NU	0	0.58900E-02	564775.8	4191177.5	63.2	2.13	810.93	87.63	0.15	NO	
NEWSTAN1	0	0.69300E-02	565533.9	4191904.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN2	0	0.69300E-02	565535.5	4191899.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN3	0	0.69300E-02	565537.2	4191894.5	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN4	0	0.69300E-02	565538.8	4191889.8	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN5	0	0.69300E-02	565545.4	4191891.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN6	0	0.69300E-02	565543.6	4191896.2	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN7	0	0.69300E-02	565542.0	4191901.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN8	0	0.69300E-02	565540.3	4191905.8	112.9	41.90	293.15	17.25	1.32	YES	
NEWDAVS1	0	0.66300E-02	565340.6	4191981.0	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS2	0	0.66300E-02	565338.7	4191980.8	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS3	0	0.66300E-02	565329.5	4191986.8	109.2	33.79	293.15	13.62	0.86	YES	
NEWDAVS4	0	0.66300E-02	565328.4	4191986.2	109.2	33.79	293.15	13.62	0.86	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.24000E-03	564821.2	4191842.8	74.8	6.95	0.07	2.42	
PAINT1	0	0.31900E-03	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.31900E-03	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.31900E-03	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.31900E-03	564865.7	4191751.0	77.0	4.57	3.54	4.25	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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  GROUP ID                                     SOURCE IDs


  ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
           KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
           LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
           LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
           TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
           GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
           WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
           PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
           ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
           ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133, NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F,
NEWLAB_G,
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ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1, ENG_UNT2, ENG_UNT3, ENG116NU, NEWSTAN1,
NEWSTAN2,

          NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  GEN   ENG_62 , ENG_63 , ENG_64 , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
ENG_113 ,

          ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 , ENG_128 ,
ENG_129 ,

          ENG_130 , ENG_131 , ENG_132 , E134_133, ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1,
ENG_UNT2,

          ENG_UNT3, ENG116NU,

  LABS   WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1 , MHSTK2 , MHSTK3 , MHSTK4 , MHSTK5 , MHSTK6 , KHSTK1 , KHSTK2 , KHSTK3
,

          KHSTK4 , BHSTK1 , BHSTK2 , BHSTK3 , BHSTK4 , BHSTK5 , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID   SOURCE IDs

          TANHSTKC, TANHSTKD, HHSTKA , HHSTKB , HHSTKC , HHSTKD , HHSTKE , GHSTK1 , GHSTK2 , GHSTK3 , GHSTK4 , GHSTK5
,

          GHSTK6 , GHSTK7 , GHSTK8 , GHSTK9 , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1 , HESSTK1 , HILSTK1 ,
MULSTK1 ,

          WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3,
NEWSTAN4,

          NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  OTHER   PRINTA , PRINTB , PRINTC , POURING , PAINT1 , PAINT2 , PAINT3 , PAINT4 ,

  BOILERS BOILER#2, BOILER#3, BOILER#4,

  COGEN   COGEN   ,

                         *** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

                      ** CONC OF CANCER   IN MICROGRAMS/M**3   **

                                                                             NETWORK
  GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- -

  ALL   1ST HIGHEST VALUE IS   5.35416 AT (564892.25, 4191959.00,   84.00,   0.00) DC   NA
         2ND HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         3RD HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         4TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         5TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         6TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         7TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         8TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         9TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
        10TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)

  GEN   1ST HIGHEST VALUE IS   3.70524 AT (564892.25, 4191959.00,   84.00,   0.00) DC   NA
         2ND HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)
         3RD HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,   0.00)

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              4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
              5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
              6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
              7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
              8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
              9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
             10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)

LABS    1ST HIGHEST VALUE IS      1.57458 AT ( 564892.25, 4191959.00,      84.00,      0.00) DC      NA
        2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
       10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)


                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                  ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                            NETWORK
GROUP ID                        AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


OTHER   1ST HIGHEST VALUE IS      0.02330 AT ( 564892.25, 4191959.00,      84.00,      0.00) DC      NA
        2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
       10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)


BOILERS 1ST HIGHEST VALUE IS      0.01078 AT ( 564892.25, 4191959.00,      84.00,      0.00) DC      NA
        2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
       10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)

COGEN   1ST HIGHEST VALUE IS      0.04084 AT ( 564892.25, 4191959.00,      84.00,      0.00) DC      NA
        2ND HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        3RD HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        4TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        5TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        6TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        7TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        8TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
        9TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
       10TH HIGHEST VALUE IS      0.00000 AT (      0.00,       0.00,       0.00,      0.00)
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley -  12/2003; vjh                                        ***
*** Model Executed on 02/06/04 at 10:55:26 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Can-Sensitive.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Can-Sensitive.LST

   Met File - D:\Beest\UCBerk\10-03\met2\lbl-97a.asc

      Number of sources -        142
Number of source groups -         37
    Number of receptors -        259
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*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
WHSTK1_8	0	0.44700E-04	564704.4	4191782.8	66.8	31.70	293.15	7.12	0.19	YES	
NWAF9	0	0.60100E-03	564718.8	4191791.2	66.8	29.57	293.15	16.48	0.74	YES	
WHSTK10	0	0.44700E-04	564724.4	4191826.0	66.8	8.60	293.15	7.12	0.34	YES	
MHSTK1	0	0.24000E-03	564794.4	4191795.8	74.8	7.61	293.15	17.25	0.34	YES	
MHSTK2	0	0.24000E-03	564798.6	4191843.0	74.8	10.89	293.15	17.25	0.29	YES	
MHSTK3	0	0.24000E-03	564794.1	4191843.0	74.8	10.89	293.15	17.25	0.48	YES	
MHSTK4	0	0.24000E-03	564800.9	4191787.2	74.8	15.61	293.15	17.25	0.33	YES	
MHSTK6	0	0.24000E-03	564801.3	4191808.2	74.8	10.94	293.15	17.25	0.34	YES	
KHSTK1	0	0.33000E-02	564761.1	4191879.8	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK2	0	0.33000E-02	564759.4	4191891.8	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK3	0	0.33000E-02	564732.4	4191877.5	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK4	0	0.33000E-02	564731.4	4191889.0	72.7	18.45	293.15	1.28	2.76	YES	
BHSTK1	0	0.45600E-03	564678.9	4191889.0	67.4	27.85	293.15	2.78	1.26	YES	
BHSTK2	0	0.45600E-03	564675.0	4191896.8	67.4	29.68	293.15	2.78	1.26	YES	
BHSTK3	0	0.45600E-03	564704.5	4191898.0	67.4	29.68	293.15	2.78	1.26	YES	
BHSTK4	0	0.45600E-03	564707.4	4191887.8	67.4	33.34	293.15	2.78	0.37	YES	
BHSTK5	0	0.45600E-03	564691.6	4191888.0	67.4	33.34	293.15	2.78	0.37	YES	
VLSBSTK1	0	0.77100E-03	564933.6	4191633.2	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK2	0	0.77100E-03	564954.0	4191566.5	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK3	0	0.77100E-03	565051.3	4191594.8	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK4	0	0.77100E-03	565030.6	4191662.2	64.4	27.04	293.15	3.97	1.22	YES	
LSASTK1	0	0.16600E-02	564892.2	4191637.2	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK2	0	0.16600E-02	564875.9	4191632.8	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK3	0	0.16600E-02	564907.6	4191580.5	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK4	0	0.16600E-02	564897.1	4191578.0	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK5	0	0.16600E-02	564908.6	4191576.2	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK6	0	0.16600E-02	564899.1	4191573.5	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK7	0	0.16600E-02	564900.8	4191572.2	64.4	28.31	293.15	5.18	0.30	YES	
LEWHSTK1	0	0.63700E-03	565605.8	4191772.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK2	0	0.63700E-03	565591.5	4191786.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK3	0	0.63700E-03	565585.9	4191792.2	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK4	0	0.63700E-03	565583.1	4191800.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK5	0	0.63700E-03	565598.1	4191787.8	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK6	0	0.63700E-03	565619.4	4191775.8	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK7	0	0.63700E-03	565608.8	4191787.2	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK8	0	0.63700E-03	565597.6	4191800.5	106.7	12.80	293.15	3.11	0.30	YES	
LEWHSTK9	0	0.63700E-03	565593.3	4191808.2	106.7	12.80	293.15	3.11	0.36	YES	
LATHSTK1	0	0.27200E-02	565555.1	4191799.2	104.6	42.37	293.15	6.28	0.34	YES	
LATHSTK2	0	0.27200E-02	565561.1	4191812.0	104.6	36.88	293.15	6.28	0.70	YES	
LATHSTK3	0	0.27200E-02	565531.6	4191800.2	104.6	36.88	293.15	6.28	0.48	YES	

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
LATHSTK4	0	0.27200E-02	565515.1	4191799.5	104.6	37.19	293.15	6.28	0.96	YES	
LATHSTK5	0	0.27200E-02	565539.7	4191794.2	104.6	42.37	293.15	6.28	0.70	YES	
LATHSTK6	0	0.27200E-02	565527.3	4191776.0	104.6	38.40	293.15	6.28	0.74	YES	
LATHSTK7	0	0.27200E-02	565544.9	4191781.5	104.6	38.40	293.15	6.28	0.31	YES	
LATHSTK8	0	0.27200E-02	565562.3	4191787.0	104.6	38.40	293.15	6.28	0.70	YES	
TANHSTKA	0	0.23500E-02	565492.1	4191793.2	100.6	39.32	293.15	2.94	1.69	YES	
TANHSTKB	0	0.23500E-02	565496.8	4191794.0	100.6	39.32	293.15	2.94	1.69	YES	
TANHSTKC	0	0.23500E-02	565494.1	4191787.2	100.6	39.32	293.15	2.94	1.69	YES	

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TANHSTKD      0   0.23500E-02  565499.1 4191788.2  100.6   39.32  293.15    2.94     1.69     YES
HHSTKA        0   0.26000E-02  565540.8 4191749.5  103.6   20.12  293.15    4.15     1.52     YES
HHSTKB        0   0.26000E-02  565565.6 4191756.8  103.6   20.12  293.15    4.15     1.52     YES
HHSTKC        0   0.26000E-02  565576.8 4191717.8  103.6   20.12  293.15    4.15     1.52     YES
HHSTKD        0   0.26000E-02  565553.2 4191710.5  103.6   20.12  293.15    4.15     1.52     YES
HHSTKE        0   0.26000E-02  565543.4 4191746.5  103.6   20.12  293.15    4.15     0.81     YES
GHSTK1        0   0.36700E-03  565507.1 4191756.0  103.6   16.06  293.15    5.92     0.30     YES
GHSTK2        0   0.36700E-03  565510.6 4191744.8  103.6   16.06  293.15    5.92     0.25     YES
GHSTK3        0   0.36700E-03  565512.4 4191739.0  103.6   16.37  293.15    5.92     0.30     YES
GHSTK4        0   0.36700E-03  565514.7 4191737.8  103.6   15.91  293.15    5.92     0.31     YES
GHSTK5        0   0.36700E-03  565514.9 4191732.2  103.6   16.06  293.15    5.92     0.30     YES
GHSTK6        0   0.36700E-03  565500.2 4191755.2  103.6   16.12  293.15    5.92     0.30     YES
GHSTK7        0   0.36700E-03  565501.1 4191753.0  103.6   16.37  293.15    5.92     0.84     YES
GHSTK8        0   0.36700E-03  565503.7 4191744.2  103.6   16.00  293.15    5.92     0.30     YES
GHSTK9        0   0.36700E-03  565505.2 4191740.2  103.6   16.37  293.15    5.92     0.26     YES
GHSTK10       0   0.36700E-03  565506.9 4191735.2  103.6   16.06  293.15    5.92     0.30     YES
GHSTK11       0   0.36700E-03  565509.7 4191728.2  103.6   16.22  293.15    5.92     0.30     YES
GHSTK12       0   0.36700E-03  565509.0 4191725.5  103.6   16.06  293.15    5.92     0.30     YES
GHSTK13       0   0.36700E-03  565516.9 4191725.8  103.6   15.91  293.15    5.92     0.40     YES
CHSTK1        0   0.86900E-04  565393.9 4192008.8  110.3   26.85  293.15    2.00     1.00     YES
HESSTK1       0   0.73300E-03  565234.6 4191926.2   98.2   15.39  293.15    2.00     1.00     YES
HILSTK1       0   0.72100E-03  564874.6 4191815.0   80.4   14.96  293.15    2.00     1.00     YES
MULSTK1       0   0.53300E-05  564779.7 4191737.8   74.4   17.24  293.15    2.00     1.00     YES
WELSTK1       0   0.13600E-04  564933.7 4191795.2   81.7    5.89  293.15    2.00     1.00     YES
PRINTA        0   0.10400E-03  564584.7 4191553.2   60.0    8.91  293.15    2.70     0.84     YES
PRINTB        0   0.10400E-03  564614.4 4191520.8   60.0    8.91  293.15    2.70     0.84     YES
PRINTC        0   0.10400E-03  564643.1 4191525.5   60.0    8.91  293.15    2.70     0.60     YES
COGEN         0   0.97700E+00  564876.0 4191492.0   71.9   12.77  430.37   10.45     2.28     YES
BOILER#2      0   0.12440E-01  564863.6 4191499.5   71.9    8.80  522.82    7.97     1.52     YES
BOILER#3      0   0.47000E-01  564881.9 4191505.8   71.9    8.80  554.11   10.53     1.52     YES
BOILER#4      0   0.56800E-01  564885.8 4191495.8   71.9    8.80  566.65   12.63     1.52     YES
POURING       0   0.22400E-02  564847.8 4191467.0   70.1   14.94  293.15    4.62     0.56     YES
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                              *** POINT SOURCE DATA ***

	NUMBER	EMISSION RATE			BASE	STACK	STACK	STACK	STACK	BUILDING	EMISSION RATE
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	TEMP.	EXIT VEL.	DIAMETER	EXISTS	SCALAR VARY
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(DEG.K)	(M/SEC)	(METERS)		BY

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ENG_62        0   0.47241E-02  565567.6 4191086.5   85.1    4.57  800.37  146.01     0.13     NO
ENG_63        0   0.23621E-02  564668.2 4191897.5   70.2    4.57  799.85  152.00     0.13     YES
ENG_64        0   0.72350E-03  565452.9 4191687.0   98.2    3.05  817.07   58.47     0.08     YES
ENG_105       0   0.74200E-01  564939.1 4191457.8   71.1    4.57  810.96   70.10     0.23     YES
ENG_106       0   0.62205E-01  564991.6 4191614.5   73.6   30.48  810.96   70.10     0.20     YES
ENG_107       0   0.49776E-01  564767.4 4191906.8   76.2    0.00  810.96   70.10     0.18     YES
ENG_108       0   0.49776E-01  564930.6 4191564.2   68.8    7.62  810.96   70.10     0.18     YES
ENG_109       0   0.16596E-02  565615.8 4191801.2  111.7    3.05  810.96   70.10     0.15     YES
ENG_110       0   0.82858E-02  564655.9 4191874.5   68.4    4.57  810.96   70.10     0.10     YES
ENG_111       0   0.23806E-01  565091.1 4191757.8   78.9    3.05  810.96   70.10     0.11     YES
ENG_112       0   0.20714E-01  565542.8 4191208.2   85.7    3.05  810.93   70.10     0.10     NO
ENG_113       0   0.20714E-01  565673.6 4191194.8   92.0    3.05  810.93   70.10     0.10     NO
ENG_114       0   0.20714E-01  565601.4 4191014.2   86.0    3.05  810.93   70.10     0.10     NO
ENG_115       0   0.20714E-01  565702.9 4190991.8   91.4    3.05  810.93   70.10     0.10     NO
ENG_117       0   0.20714E-01  565575.9 4191609.0   99.3    3.05  810.96   70.10     0.10     YES
ENG_118       0   0.98935E-02  564654.8 4191890.5   68.6    4.57  810.96   70.10     0.13     YES
ENG_119       0   0.14531E-01  564728.8 4191771.0   70.5    4.57  810.96   70.10     0.08     YES
ENG_120       0   0.10450E-01  565318.0 4191422.5   86.1    3.05  810.96   70.10     0.08     YES
ENG_121       0   0.10388E-01  565926.2 4191443.0  118.9    3.05  810.93   70.10     0.08     NO
ENG_123       0   0.12800E-01  565259.4 4191652.8   88.3    3.05  810.96   70.10     0.08     YES
ENG_125       0   0.41058E-01  564811.2 4191460.8   67.7    3.05  810.96   70.10     0.08     YES
ENG_126       0   0.33143E-02  565137.9 4191441.5   77.6    0.00  810.96   70.10     0.08     YES
ENG_128       0   0.41429E-02  565469.2 4191955.2  109.8    3.05  810.96   70.10     0.05     YES
ENG_129       0   0.41429E-02  565383.1 4191740.2   97.0    2.44  810.96   70.10     0.05     YES
ENG_130       0   0.25692E-02  565533.3 4191713.5   98.9    2.44  815.40  134.54     0.08     YES
ENG_131       0   0.72350E-03  564970.3 4191484.2   71.3    1.83  817.07   58.47     0.08     YES
ENG_132       0   0.72350E-03  564800.3 4191781.8   74.3    1.83  817.07   58.47     0.08     YES
E134_133      0   0.18674E-01  565380.0 4191477.2  104.3    3.05  769.29  135.05     0.13     YES
NEWLAB_A      0   0.53000E-01  564808.8 4191708.2   70.5    6.10  293.15    3.97     1.00     YES
NEWLAB_B      0   0.10800E-01  565047.0 4191787.5   77.9    6.10  293.15    3.97     1.00     YES
NEWLAB_C      0   0.59900E-02  565301.9 4191832.0   90.7    6.10  293.15    3.97     1.00     YES
NEWLAB_D      0   0.31900E-02  565490.2 4191861.5  106.7    6.10  293.15    3.97     1.00     YES
NEWLAB_E      0   0.85200E-02  565089.5 4191460.8   73.6    6.10  293.15    3.97     1.00     YES
NEWLAB_F      0   0.67500E-02  565368.8 4191521.8   86.7    6.10  293.15    3.97     1.00     YES
NEWLAB_G      0   0.19400E-02  565641.7 4191569.5  102.4    6.10  293.15    3.97     1.00     YES
ENG_STNL      0   0.69563E-02  565539.1 4191905.2  114.2    2.13  769.26   76.14     0.18     YES
ENG_DVS       0   0.69563E-02  565364.1 4191990.5  109.8    2.13  769.26   76.14     0.18     YES
ENG_MCCN      0   0.27825E-02  565176.4 4191928.8   93.8    2.13  810.93   59.08     0.13     YES
ENG_SRB1      0   0.27825E-02  564595.2 4191928.2   67.3    2.13  810.93   59.08     0.13     YES
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    ENGNULAB       0   0.69563E-02  564559.2 4191851.0   64.9    2.13  769.26    76.14     0.18     YES
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                NUMBER EMISSION RATE                    BASE    STACK   STACK    STACK     STACK    BUILDING  EMISSION RATE
       SOURCE   PART.  (GRAMS/SEC)    X        Y        ELEV.  HEIGHT  TEMP.   EXIT VEL. DIAMETER   EXISTS    SCALAR VARY
         ID     CATS.              (METERS) (METERS)  (METERS)(METERS)(DEG.K)   (M/SEC)  (METERS)                  BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    ENGMUSIC       0   0.27825E-02  565510.9 4191488.8   94.8    2.13  810.93    59.08     0.13     YES
    ENG_UNT1       0   0.27825E-02  565595.6 4191185.0   87.9    2.13  810.93    59.08     0.13     NO
    ENG_UNT2       0   0.27825E-02  565647.0 4191033.2   88.8    2.13  810.93    59.08     0.13     NO
    ENG_UNT3       0   0.27825E-02  565112.1 4191138.8   72.6    2.13  810.93    59.08     0.13     NO
    ENG116NU       0   0.58900E-02  564775.8 4191177.5   63.2    2.13  810.93    87.63     0.15     NO
    NEWSTAN1       0   0.69300E-02  565533.9 4191904.0  112.9   41.90  293.15    17.25     1.32     YES
    NEWSTAN2       0   0.69300E-02  565535.5 4191899.0  112.9   41.90  293.15    17.25     1.32     YES
    NEWSTAN3       0   0.69300E-02  565537.2 4191894.5  112.9   41.90  293.15    17.25     1.32     YES
    NEWSTAN4       0   0.69300E-02  565538.8 4191889.8  112.9   41.90  293.15    17.25     1.32     YES
    NEWSTAN5       0   0.69300E-02  565545.4 4191891.0  112.9   41.90  293.15    17.25     1.32     YES
    NEWSTAN6       0   0.69300E-02  565543.6 4191896.2  112.9   41.90  293.15    17.25     1.32     YES
    NEWSTAN7       0   0.69300E-02  565542.0 4191901.0  112.9   41.90  293.15    17.25     1.32     YES
    NEWSTAN8       0   0.69300E-02  565540.3 4191905.8  112.9   41.90  293.15    17.25     1.32     YES
    NEWDAVS1       0   0.66300E-02  565340.6 4191981.0  108.9   33.79  293.15    12.66     1.63     YES
    NEWDAVS2       0   0.66300E-02  565338.7 4191980.8  108.9   33.79  293.15    12.66     1.63     YES
    NEWDAVS3       0   0.66300E-02  565329.5 4191986.8  109.2   33.79  293.15    13.62     0.86     YES
    NEWDAVS4       0   0.66300E-02  565328.4 4191986.2  109.2   33.79  293.15    13.62     0.86     YES
```

```
                NUMBER EMISSION RATE                    BASE    RELEASE  INIT.   INIT.   EMISSION RATE
       SOURCE   PART.  (GRAMS/SEC)    X        Y        ELEV.  HEIGHT    SY      SZ      SCALAR VARY
         ID     CATS.              (METERS) (METERS)  (METERS)(METERS) (METERS)(METERS)      BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    MHSTK5         0   0.24000E-03  564821.2 4191842.8   74.8    6.95    0.07    2.42
    PAINT1         0   0.31900E-03  564917.1 4191432.5   72.0    4.57    3.54    4.25
    PAINT2         0   0.31900E-03  565322.7 4191834.8   96.0    4.57    3.54    4.25
    PAINT3         0   0.31900E-03  565541.5 4191525.8   97.0    4.57    3.54    4.25
    PAINT4         0   0.31900E-03  564865.7 4191751.0   77.0    4.57    3.54    4.25
```

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   GROUP ID                                      SOURCE IDs


   ALL      WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
            KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
            LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
            LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
            TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
            GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
            WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
            PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
            ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
            ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133, NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F,
NEWLAB_G,
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           ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1, ENG_UNT2, ENG_UNT3, ENG116NU, NEWSTAN1,
NEWSTAN2,

           NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  WH       WHSTK1_8, WHSTK10 ,

  NWAF     NWAF9   ,

  MH       MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

  KH       KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

  BH       BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

  VLSB     VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

  LSA      LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

  LEW      LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***
  GROUP ID                                        SOURCE IDs

  LAT      LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

  TAN      TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

  HH       HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

  GH       GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
GHSTK12 ,

           GHSTK13 ,

  CH       CHSTK1  ,

  HES      HESSTK1 ,

  HIL      HILSTK1 ,

  MUL      MULSTK1 ,

  WEL      WELSTK1 ,

  PRINT    PRINTA  , PRINTB  , PRINTC  ,

  COMBUST  COGEN   , BOILER#2, BOILER#3, BOILER#4,

  HAZMAT   POURING ,

  PAINT    PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

  EXISTLAB WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
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          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
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                            *** SOURCE IDs DEFINING SOURCE GROUPS ***

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  GROUP ID                                    SOURCE IDs

          WELSTK1 ,

  ENGINES  ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
ENG_113 ,

          ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 , ENG_128 ,
ENG_129 ,

          ENG_130 , ENG_131 , ENG_132 , E134_133,

  NEWLABS  NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4,
NEWSTAN5,

          NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  ALL_LABS WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

          WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_G, ENG_UNT3, NEWSTAN1, NEWSTAN2, NEWSTAN3,
NEWSTAN4,

          NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  EXISTING WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
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                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

   GROUP ID                                      SOURCE IDs


           WELSTK1 , PRINTA , PRINTB , PRINTC , COGEN  , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
 ,
           PAINT4  , ENG_62 , ENG_63 , ENG_64 , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
 ENG_112 ,
           ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
 ENG_128 ,
           ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,


   NEWLAB_A  NEWLAB_A,


   NEWLAB_B  NEWLAB_B,


   NEWLAB_C  NEWLAB_C,


   NEWLAB_D  NEWLAB_D,


   NEWLAB_E  NEWLAB_E,


   NEWLAB_F  NEWLAB_F,


   NEWLAB_G  NEWLAB_G,


   DAVISNEW  NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,


   STAN_NEW  NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8,


   NEWENG    ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENG_UNT1, ENG_UNT2, ENG_UNT3,



                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                  ** CONC OF CANCER   IN MICROGRAMS/M**3                    **

                                                                                        NETWORK
   GROUP ID                 AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


 ALL     1ST HIGHEST VALUE IS     5.22741 AT (  565700.06, 4191711.25,    109.42,    0.00) DC      NA
         2ND HIGHEST VALUE IS     5.12918 AT (  565700.06, 4191711.25,    108.20,    0.00) DC      NA
         3RD HIGHEST VALUE IS     4.01899 AT (  564945.62, 4192065.50,    102.72,    0.00) DC      NA
         4TH HIGHEST VALUE IS     3.47902 AT (  565009.00, 4192130.00,    110.64,    0.00) DC      NA
         5TH HIGHEST VALUE IS     3.39447 AT (  564926.69, 4192158.75,    109.42,    0.00) DC      NA
         6TH HIGHEST VALUE IS     3.05633 AT (  566093.38, 4191024.75,    114.60,    0.00) DC      NA
         7TH HIGHEST VALUE IS     2.37426 AT (  566166.56, 4190836.25,    107.59,    0.00) DC      NA
         8TH HIGHEST VALUE IS     2.21261 AT (  566063.25, 4190799.75,    101.19,    0.00) DC      NA
         9TH HIGHEST VALUE IS     2.10530 AT (  565144.62, 4192620.50,    154.84,    0.00) DC      NA
        10TH HIGHEST VALUE IS     1.96675 AT (  565202.31, 4192629.00,    160.32,    0.00) DC      NA


 WH      1ST HIGHEST VALUE IS     0.00050 AT (  564945.62, 4192065.50,    102.72,    0.00) DC      NA
         2ND HIGHEST VALUE IS     0.00045 AT (  564228.31, 4192049.25,     64.62,    0.00) DC      NA
         3RD HIGHEST VALUE IS     0.00040 AT (  564487.38, 4192391.25,     80.16,    0.00) DC      NA
         4TH HIGHEST VALUE IS     0.00034 AT (  564926.69, 4192158.75,    109.42,    0.00) DC      NA
         5TH HIGHEST VALUE IS     0.00034 AT (  564160.38, 4192207.75,     64.31,    0.00) DC      NA
         6TH HIGHEST VALUE IS     0.00032 AT (  565009.00, 4192130.00,    110.64,    0.00) DC      NA
         7TH HIGHEST VALUE IS     0.00032 AT (  564249.94, 4192208.00,     66.75,    0.00) DC      NA
         8TH HIGHEST VALUE IS     0.00029 AT (  564079.94, 4192117.50,     61.57,    0.00) DC      NA
         9TH HIGHEST VALUE IS     0.00029 AT (  564591.56, 4192414.75,     83.82,    0.00) DC      NA
        10TH HIGHEST VALUE IS     0.00028 AT (  564933.25, 4191275.25,     71.32,    0.00) DC      NA

 NWAF    1ST HIGHEST VALUE IS     0.00212 AT (  564945.62, 4192065.50,    102.72,    0.00) DC      NA
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              2ND HIGHEST VALUE IS      0.00186 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
              3RD HIGHEST VALUE IS      0.00183 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
              4TH HIGHEST VALUE IS      0.00182 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
              5TH HIGHEST VALUE IS      0.00175 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
              6TH HIGHEST VALUE IS      0.00131 AT (  564933.25,  4191275.25,     71.32,    0.00)  DC     NA
              7TH HIGHEST VALUE IS      0.00093 AT (  565070.19,  4191077.50,     70.41,    0.00)  DC     NA
              8TH HIGHEST VALUE IS      0.00092 AT (  564735.81,  4192658.00,    100.28,    0.00)  DC     NA
              9TH HIGHEST VALUE IS      0.00092 AT (  564729.75,  4192662.25,    100.28,    0.00)  DC     NA
             10TH HIGHEST VALUE IS      0.00085 AT (  566063.25,  4190799.75,    101.19,    0.00)  DC     NA


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                        ** CONC OF CANCER   IN MICROGRAMS/M**3                          **

                                                                                            NETWORK
GROUP ID                      AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MH     1ST HIGHEST VALUE IS      0.01205 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
       2ND HIGHEST VALUE IS      0.00964 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
       3RD HIGHEST VALUE IS      0.00774 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC     NA
       4TH HIGHEST VALUE IS      0.00765 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
       5TH HIGHEST VALUE IS      0.00695 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC     NA
       6TH HIGHEST VALUE IS      0.00664 AT (  564249.94,  4192208.00,     66.75,    0.00)  DC     NA
       7TH HIGHEST VALUE IS      0.00607 AT (  564933.25,  4191275.25,     71.32,    0.00)  DC     NA
       8TH HIGHEST VALUE IS      0.00594 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
       9TH HIGHEST VALUE IS      0.00593 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
      10TH HIGHEST VALUE IS      0.00528 AT (  564525.06,  4192613.75,     85.65,    0.00)  DC     NA

KH     1ST HIGHEST VALUE IS      0.10497 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
       2ND HIGHEST VALUE IS      0.06941 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
       3RD HIGHEST VALUE IS      0.06837 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
       4TH HIGHEST VALUE IS      0.05117 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC     NA
       5TH HIGHEST VALUE IS      0.04484 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
       6TH HIGHEST VALUE IS      0.04470 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
       7TH HIGHEST VALUE IS      0.04402 AT (  564249.94,  4192208.00,     66.75,    0.00)  DC     NA
       8TH HIGHEST VALUE IS      0.04354 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC     NA
       9TH HIGHEST VALUE IS      0.03574 AT (  564933.25,  4191275.25,     71.32,    0.00)  DC     NA
      10TH HIGHEST VALUE IS      0.03521 AT (  564160.38,  4192207.75,     64.31,    0.00)  DC     NA

BH     1ST HIGHEST VALUE IS      0.01456 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
       2ND HIGHEST VALUE IS      0.00936 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
       3RD HIGHEST VALUE IS      0.00840 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
       4TH HIGHEST VALUE IS      0.00642 AT (  564249.94,  4192208.00,     66.75,    0.00)  DC     NA
       5TH HIGHEST VALUE IS      0.00612 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
       6TH HIGHEST VALUE IS      0.00611 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
       7TH HIGHEST VALUE IS      0.00592 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC     NA
       8TH HIGHEST VALUE IS      0.00526 AT (  564228.31,  4192049.25,     64.62,    0.00)  DC     NA
       9TH HIGHEST VALUE IS      0.00518 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC     NA
      10TH HIGHEST VALUE IS      0.00504 AT (  564160.38,  4192207.75,     64.31,    0.00)  DC     NA


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                        ** CONC OF CANCER   IN MICROGRAMS/M**3                          **

                                                                                            NETWORK
GROUP ID                      AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


VLSB   1ST HIGHEST VALUE IS      0.01496 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
       2ND HIGHEST VALUE IS      0.01074 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
       3RD HIGHEST VALUE IS      0.01067 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
       4TH HIGHEST VALUE IS      0.00958 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
       5TH HIGHEST VALUE IS      0.00956 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
       6TH HIGHEST VALUE IS      0.00901 AT (  565328.31,  4191032.50,     74.68,    0.00)  DC     NA
       7TH HIGHEST VALUE IS      0.00716 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC     NA
       8TH HIGHEST VALUE IS      0.00668 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC     NA
       9TH HIGHEST VALUE IS      0.00650 AT (  566063.25,  4190799.75,    101.19,    0.00)  DC     NA
      10TH HIGHEST VALUE IS      0.00628 AT (  565070.19,  4191077.50,     70.41,    0.00)  DC     NA

LSA    1ST HIGHEST VALUE IS      0.05449 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
       2ND HIGHEST VALUE IS      0.03357 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
       3RD HIGHEST VALUE IS      0.03354 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
       4TH HIGHEST VALUE IS      0.03306 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
       5TH HIGHEST VALUE IS      0.03262 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
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        6TH HIGHEST VALUE IS      0.03137 AT (  565070.19,  4191077.50,     70.41,     0.00)  DC      NA
        7TH HIGHEST VALUE IS      0.03074 AT (  564933.25,  4191275.25,     71.32,     0.00)  DC      NA
        8TH HIGHEST VALUE IS      0.03065 AT (  565328.31,  4191032.50,     74.68,     0.00)  DC      NA
        9TH HIGHEST VALUE IS      0.02297 AT (  564249.94,  4192208.00,     66.75,     0.00)  DC      NA
       10TH HIGHEST VALUE IS      0.02253 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC      NA


LEW    1ST HIGHEST VALUE IS      0.12469 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        2ND HIGHEST VALUE IS      0.12244 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS      0.02055 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC      NA
        4TH HIGHEST VALUE IS      0.01899 AT (  565233.75,  4192605.00,    159.72,     0.00)  DC      NA
        5TH HIGHEST VALUE IS      0.01856 AT (  565202.31,  4192629.00,    160.32,     0.00)  DC      NA
        6TH HIGHEST VALUE IS      0.01794 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        7TH HIGHEST VALUE IS      0.01543 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        8TH HIGHEST VALUE IS      0.01498 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        9TH HIGHEST VALUE IS      0.01085 AT (  566093.38,  4191024.75,    114.60,     0.00)  DC      NA
       10TH HIGHEST VALUE IS      0.00981 AT (  564735.81,  4192658.00,    100.28,     0.00)  DC      NA



                       *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                   ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                        NETWORK
GROUP ID                      AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


LAT    1ST HIGHEST VALUE IS      0.17544 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        2ND HIGHEST VALUE IS      0.16414 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS      0.04832 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC      NA
        4TH HIGHEST VALUE IS      0.04487 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        5TH HIGHEST VALUE IS      0.04229 AT (  565233.75,  4192605.00,    159.72,     0.00)  DC      NA
        6TH HIGHEST VALUE IS      0.04174 AT (  565202.31,  4192629.00,    160.32,     0.00)  DC      NA
        7TH HIGHEST VALUE IS      0.03769 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        8TH HIGHEST VALUE IS      0.03234 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        9TH HIGHEST VALUE IS      0.02504 AT (  566093.38,  4191024.75,    114.60,     0.00)  DC      NA
       10TH HIGHEST VALUE IS      0.01961 AT (  564735.81,  4192658.00,    100.28,     0.00)  DC      NA


TAN    1ST HIGHEST VALUE IS      0.09371 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        2ND HIGHEST VALUE IS      0.08884 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS      0.02239 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        4TH HIGHEST VALUE IS      0.01915 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC      NA
        5TH HIGHEST VALUE IS      0.01874 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        6TH HIGHEST VALUE IS      0.01688 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        7TH HIGHEST VALUE IS      0.01667 AT (  565233.75,  4192605.00,    159.72,     0.00)  DC      NA
        8TH HIGHEST VALUE IS      0.01663 AT (  565202.31,  4192629.00,    160.32,     0.00)  DC      NA
        9TH HIGHEST VALUE IS      0.01141 AT (  566093.38,  4191024.75,    114.60,     0.00)  DC      NA
       10TH HIGHEST VALUE IS      0.00927 AT (  564735.81,  4192658.00,    100.28,     0.00)  DC      NA


HH     1ST HIGHEST VALUE IS      0.36596 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        2ND HIGHEST VALUE IS      0.34145 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS      0.03798 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        4TH HIGHEST VALUE IS      0.03328 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        5TH HIGHEST VALUE IS      0.03276 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        6TH HIGHEST VALUE IS      0.03196 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC      NA
        7TH HIGHEST VALUE IS      0.02911 AT (  565233.75,  4192605.00,    159.72,     0.00)  DC      NA
        8TH HIGHEST VALUE IS      0.02867 AT (  565202.31,  4192629.00,    160.32,     0.00)  DC      NA
        9TH HIGHEST VALUE IS      0.02281 AT (  566093.38,  4191024.75,    114.60,     0.00)  DC      NA
       10TH HIGHEST VALUE IS      0.01836 AT (  564735.81,  4192658.00,    100.28,     0.00)  DC      NA



                       *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                   ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                        NETWORK
GROUP ID                      AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


GH     1ST HIGHEST VALUE IS      0.13462 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC      NA
        2ND HIGHEST VALUE IS      0.13113 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC      NA
        3RD HIGHEST VALUE IS      0.02028 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC      NA
        4TH HIGHEST VALUE IS      0.01775 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC      NA
        5TH HIGHEST VALUE IS      0.01730 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC      NA
        6TH HIGHEST VALUE IS      0.01201 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC      NA
        7TH HIGHEST VALUE IS      0.01090 AT (  565233.75,  4192605.00,    159.72,     0.00)  DC      NA
        8TH HIGHEST VALUE IS      0.01080 AT (  565202.31,  4192629.00,    160.32,     0.00)  DC      NA
        9TH HIGHEST VALUE IS      0.00941 AT (  566093.38,  4191024.75,    114.60,     0.00)  DC      NA
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        10TH HIGHEST VALUE IS        0.00805 AT (  564735.81,  4192658.00,      100.28,      0.00) DC     NA

CH      1ST HIGHEST VALUE IS         0.00031 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00031 AT (  565009.00,  4192130.00,      110.64,      0.00) DC     NA
        3RD HIGHEST VALUE IS         0.00030 AT (  565144.62,  4192620.50,      154.84,      0.00) DC     NA
        4TH HIGHEST VALUE IS         0.00030 AT (  565700.06,  4191711.25,      108.20,      0.00) DC     NA
        5TH HIGHEST VALUE IS         0.00027 AT (  565202.31,  4192629.00,      160.32,      0.00) DC     NA
        6TH HIGHEST VALUE IS         0.00027 AT (  565233.75,  4192605.00,      159.72,      0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00024 AT (  564926.69,  4192158.75,      109.42,      0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00014 AT (  564945.62,  4192065.50,      102.72,      0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00013 AT (  564735.81,  4192658.00,      100.28,      0.00) DC     NA
        10TH HIGHEST VALUE IS        0.00012 AT (  564729.75,  4192662.25,      100.28,      0.00) DC     NA

HES     1ST HIGHEST VALUE IS         0.00908 AT (  565009.00,  4192130.00,      110.64,      0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00685 AT (  564945.62,  4192065.50,      102.72,      0.00) DC     NA
        3RD HIGHEST VALUE IS         0.00667 AT (  564926.69,  4192158.75,      109.42,      0.00) DC     NA
        4TH HIGHEST VALUE IS         0.00475 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        5TH HIGHEST VALUE IS         0.00473 AT (  565700.06,  4191711.25,      108.20,      0.00) DC     NA
        6TH HIGHEST VALUE IS         0.00201 AT (  566093.38,  4191024.75,      114.60,      0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00191 AT (  564735.81,  4192658.00,      100.28,      0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00190 AT (  564729.75,  4192662.25,      100.28,      0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00187 AT (  565144.62,  4192620.50,      154.84,      0.00) DC     NA
        10TH HIGHEST VALUE IS        0.00185 AT (  565233.75,  4192605.00,      159.72,      0.00) DC     NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                    NETWORK
GROUP ID                         AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

HIL     1ST HIGHEST VALUE IS         0.00803 AT (  564945.62,  4192065.50,      102.72,      0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00483 AT (  564926.69,  4192158.75,      109.42,      0.00) DC     NA
        3RD HIGHEST VALUE IS         0.00403 AT (  565009.00,  4192130.00,      110.64,      0.00) DC     NA
        4TH HIGHEST VALUE IS         0.00322 AT (  565700.06,  4191711.25,      108.20,      0.00) DC     NA
        5TH HIGHEST VALUE IS         0.00320 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        6TH HIGHEST VALUE IS         0.00297 AT (  564591.56,  4192414.75,       83.82,      0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00292 AT (  564487.38,  4192391.25,       80.16,      0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00206 AT (  564525.06,  4192613.75,       85.65,      0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00195 AT (  564729.75,  4192662.25,      100.28,      0.00) DC     NA
        10TH HIGHEST VALUE IS        0.00194 AT (  564249.94,  4192208.00,       66.75,      0.00) DC     NA

MUL     1ST HIGHEST VALUE IS         0.00003 AT (  564945.62,  4192065.50,      102.72,      0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00002 AT (  564926.69,  4192158.75,      109.42,      0.00) DC     NA
        3RD HIGHEST VALUE IS         0.00002 AT (  564933.25,  4191275.25,       71.32,      0.00) DC     NA
        4TH HIGHEST VALUE IS         0.00002 AT (  565009.00,  4192130.00,      110.64,      0.00) DC     NA
        5TH HIGHEST VALUE IS         0.00002 AT (  564487.38,  4192391.25,       80.16,      0.00) DC     NA
        6TH HIGHEST VALUE IS         0.00002 AT (  564249.94,  4192208.00,       66.75,      0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00002 AT (  565700.06,  4191711.25,      108.20,      0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00002 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00002 AT (  564228.31,  4192049.25,       64.62,      0.00) DC     NA
        10TH HIGHEST VALUE IS        0.00001 AT (  564591.56,  4192414.75,       83.82,      0.00) DC     NA

WEL     1ST HIGHEST VALUE IS         0.00014 AT (  564945.62,  4192065.50,      102.72,      0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00010 AT (  565009.00,  4192130.00,      110.64,      0.00) DC     NA
        3RD HIGHEST VALUE IS         0.00010 AT (  564926.69,  4192158.75,      109.42,      0.00) DC     NA
        4TH HIGHEST VALUE IS         0.00008 AT (  564487.38,  4192391.25,       80.16,      0.00) DC     NA
        5TH HIGHEST VALUE IS         0.00007 AT (  565700.06,  4191711.25,      108.20,      0.00) DC     NA
        6TH HIGHEST VALUE IS         0.00007 AT (  565700.06,  4191711.25,      109.42,      0.00) DC     NA
        7TH HIGHEST VALUE IS         0.00006 AT (  564591.56,  4192414.75,       83.82,      0.00) DC     NA
        8TH HIGHEST VALUE IS         0.00005 AT (  564249.94,  4192208.00,       66.75,      0.00) DC     NA
        9TH HIGHEST VALUE IS         0.00004 AT (  564525.06,  4192613.75,       85.65,      0.00) DC     NA
        10TH HIGHEST VALUE IS        0.00004 AT (  564160.38,  4192207.75,       64.31,      0.00) DC     NA


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                    NETWORK
GROUP ID                         AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PRINT   1ST HIGHEST VALUE IS         0.00604 AT (  564933.25,  4191275.25,       71.32,      0.00) DC     NA
        2ND HIGHEST VALUE IS         0.00570 AT (  564839.88,  4191259.75,       67.36,      0.00) DC     NA
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             3RD HIGHEST VALUE IS       0.00496 AT (  564859.75,  4191226.00,    67.67,     0.00) DC     NA
             4TH HIGHEST VALUE IS       0.00339 AT (  565070.19,  4191077.50,    70.41,     0.00) DC     NA
             5TH HIGHEST VALUE IS       0.00283 AT (  564228.31,  4192049.25,    64.62,     0.00) DC     NA
             6TH HIGHEST VALUE IS       0.00227 AT (  564786.81,  4191021.25,    61.26,     0.00) DC     NA
             7TH HIGHEST VALUE IS       0.00219 AT (  564079.94,  4192117.50,    61.57,     0.00) DC     NA
             8TH HIGHEST VALUE IS       0.00192 AT (  565328.31,  4191032.50,    74.68,     0.00) DC     NA
             9TH HIGHEST VALUE IS       0.00179 AT (  564160.38,  4192207.75,    64.31,     0.00) DC     NA
            10TH HIGHEST VALUE IS       0.00171 AT (  564249.94,  4192208.00,    66.75,     0.00) DC     NA

COMBUST  1ST HIGHEST VALUE IS       0.69852 AT (  565144.62,  4192620.50,   154.84,     0.00) DC     NA
             2ND HIGHEST VALUE IS       0.66325 AT (  565202.31,  4192629.00,   160.32,     0.00) DC     NA
             3RD HIGHEST VALUE IS       0.64224 AT (  565233.75,  4192605.00,   159.72,     0.00) DC     NA
             4TH HIGHEST VALUE IS       0.55243 AT (  566729.00,  4190469.25,   136.86,     0.00) DC     NA
             5TH HIGHEST VALUE IS       0.49483 AT (  567269.62,  4189942.75,   174.65,     0.00) DC     NA
             6TH HIGHEST VALUE IS       0.47206 AT (  566093.38,  4191024.75,   114.60,     0.00) DC     NA
             7TH HIGHEST VALUE IS       0.40636 AT (  565700.06,  4191711.25,   109.42,     0.00) DC     NA
             8TH HIGHEST VALUE IS       0.38799 AT (  565700.06,  4191711.25,   108.20,     0.00) DC     NA
             9TH HIGHEST VALUE IS       0.38690 AT (  567693.00,  4189595.75,   193.24,     0.00) DC     NA
            10TH HIGHEST VALUE IS       0.31138 AT (  566166.56,  4190836.25,   107.59,     0.00) DC     NA

HAZMAT   1ST HIGHEST VALUE IS       0.03443 AT (  564933.25,  4191275.25,    71.32,     0.00) DC     NA
             2ND HIGHEST VALUE IS       0.01470 AT (  565070.19,  4191077.50,    70.41,     0.00) DC     NA
             3RD HIGHEST VALUE IS       0.01323 AT (  564859.75,  4191226.00,    67.67,     0.00) DC     NA
             4TH HIGHEST VALUE IS       0.01035 AT (  564839.88,  4191259.75,    67.36,     0.00) DC     NA
             5TH HIGHEST VALUE IS       0.01006 AT (  565328.31,  4191032.50,    74.68,     0.00) DC     NA
             6TH HIGHEST VALUE IS       0.00854 AT (  565130.12,  4190916.25,    66.75,     0.00) DC     NA
             7TH HIGHEST VALUE IS       0.00756 AT (  564228.31,  4192049.25,    64.62,     0.00) DC     NA
             8TH HIGHEST VALUE IS       0.00703 AT (  564945.62,  4192065.50,   102.72,     0.00) DC     NA
             9TH HIGHEST VALUE IS       0.00696 AT (  564249.94,  4192208.00,    66.75,     0.00) DC     NA
            10TH HIGHEST VALUE IS       0.00619 AT (  564160.38,  4192207.75,    64.31,     0.00) DC     NA



                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                 ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                       NETWORK
GROUP ID                         AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


PAINT    1ST HIGHEST VALUE IS       0.01403 AT (  565700.06,  4191711.25,   109.42,     0.00) DC     NA
             2ND HIGHEST VALUE IS       0.01403 AT (  565700.06,  4191711.25,   108.20,     0.00) DC     NA
             3RD HIGHEST VALUE IS       0.01363 AT (  564945.62,  4192065.50,   102.72,     0.00) DC     NA
             4TH HIGHEST VALUE IS       0.01328 AT (  565009.00,  4192130.00,   110.64,     0.00) DC     NA
             5TH HIGHEST VALUE IS       0.01270 AT (  564933.25,  4191275.25,    71.32,     0.00) DC     NA
             6TH HIGHEST VALUE IS       0.01139 AT (  564926.69,  4192158.75,   109.42,     0.00) DC     NA
             7TH HIGHEST VALUE IS       0.00668 AT (  565070.19,  4191077.50,    70.41,     0.00) DC     NA
             8TH HIGHEST VALUE IS       0.00531 AT (  565328.31,  4191032.50,    74.68,     0.00) DC     NA
             9TH HIGHEST VALUE IS       0.00509 AT (  564487.38,  4192391.25,    80.16,     0.00) DC     NA
            10TH HIGHEST VALUE IS       0.00505 AT (  564591.56,  4192414.75,    83.82,     0.00) DC     NA

EXISTLAB 1ST HIGHEST VALUE IS       1.00484 AT (  565700.06,  4191711.25,   109.42,     0.00) DC     NA
             2ND HIGHEST VALUE IS       0.95963 AT (  565700.06,  4191711.25,   108.20,     0.00) DC     NA
             3RD HIGHEST VALUE IS       0.33354 AT (  564945.62,  4192065.50,   102.72,     0.00) DC     NA
             4TH HIGHEST VALUE IS       0.28858 AT (  565009.00,  4192130.00,   110.64,     0.00) DC     NA
             5TH HIGHEST VALUE IS       0.26549 AT (  564926.69,  4192158.75,   109.42,     0.00) DC     NA
             6TH HIGHEST VALUE IS       0.17199 AT (  565144.62,  4192620.50,   154.84,     0.00) DC     NA
             7TH HIGHEST VALUE IS       0.15474 AT (  565233.75,  4192605.00,   159.72,     0.00) DC     NA
             8TH HIGHEST VALUE IS       0.15307 AT (  565202.31,  4192629.00,   160.32,     0.00) DC     NA
             9TH HIGHEST VALUE IS       0.13952 AT (  564487.38,  4192391.25,    80.16,     0.00) DC     NA
            10TH HIGHEST VALUE IS       0.13625 AT (  564591.56,  4192414.75,    83.82,     0.00) DC     NA

ENGINES  1ST HIGHEST VALUE IS       2.96389 AT (  565700.06,  4191711.25,   109.42,     0.00) DC     NA
             2ND HIGHEST VALUE IS       2.94770 AT (  565700.06,  4191711.25,   108.20,     0.00) DC     NA
             3RD HIGHEST VALUE IS       2.60863 AT (  564945.62,  4192065.50,   102.72,     0.00) DC     NA
             4TH HIGHEST VALUE IS       2.10883 AT (  565009.00,  4192130.00,   110.64,     0.00) DC     NA
             5TH HIGHEST VALUE IS       2.06846 AT (  564926.69,  4192158.75,   109.42,     0.00) DC     NA
             6TH HIGHEST VALUE IS       2.00022 AT (  566093.38,  4191024.75,   114.60,     0.00) DC     NA
             7TH HIGHEST VALUE IS       1.59859 AT (  566166.56,  4190836.25,   107.59,     0.00) DC     NA
             8TH HIGHEST VALUE IS       1.51225 AT (  566063.25,  4190799.75,   101.19,     0.00) DC     NA
             9TH HIGHEST VALUE IS       1.17279 AT (  564487.38,  4192391.25,    80.16,     0.00) DC     NA
            10TH HIGHEST VALUE IS       1.11212 AT (  564591.56,  4192414.75,    83.82,     0.00) DC     NA



                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                 ** CONC OF CANCER   IN MICROGRAMS/M**3                        **
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                                                                          NETWORK
GROUP ID                   AVERAGE CONC         RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLABS  1ST HIGHEST VALUE IS     0.68930 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.63241 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.61245 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.60782 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.59608 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.48142 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.45432 AT (  564933.25,  4191275.25,     71.32,     0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.43153 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.35706 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.35652 AT (  564249.94,  4192208.00,     66.75,     0.00)  DC     NA


ALL_LABS 1ST HIGHEST VALUE IS     1.56943 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC     NA
         2ND HIGHEST VALUE IS     1.50756 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.97323 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.85792 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.85554 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.60616 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.56024 AT (  564933.25,  4191275.25,     71.32,     0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.55492 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.52053 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.48679 AT (  565202.31,  4192629.00,    160.32,     0.00)  DC     NA


EXISTING 1ST HIGHEST VALUE IS     4.39510 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC     NA
         2ND HIGHEST VALUE IS     4.31535 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC     NA
         3RD HIGHEST VALUE IS     3.10626 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC     NA
         4TH HIGHEST VALUE IS     2.64396 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC     NA
         5TH HIGHEST VALUE IS     2.61499 AT (  566093.38,  4191024.75,    114.60,     0.00)  DC     NA
         6TH HIGHEST VALUE IS     2.56599 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC     NA
         7TH HIGHEST VALUE IS     2.02642 AT (  566166.56,  4190836.25,    107.59,     0.00)  DC     NA
         8TH HIGHEST VALUE IS     1.86079 AT (  566063.25,  4190799.75,    101.19,     0.00)  DC     NA
         9TH HIGHEST VALUE IS     1.64951 AT (  565144.62,  4192620.50,    154.84,     0.00)  DC     NA
        10TH HIGHEST VALUE IS     1.53770 AT (  565202.31,  4192629.00,    160.32,     0.00)  DC     NA



                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                  ** CONC OF CANCER   IN MICROGRAMS/M**3                      **

                                                                          NETWORK
GROUP ID                   AVERAGE CONC         RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_A 1ST HIGHEST VALUE IS     0.39234 AT (  564933.25,  4191275.25,     71.32,     0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.31075 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.30621 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.26777 AT (  564249.94,  4192208.00,     66.75,     0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.26350 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.25860 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.24092 AT (  565070.19,  4191077.50,     70.41,     0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.23991 AT (  564228.31,  4192049.25,     64.62,     0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.22777 AT (  564839.88,  4191259.75,     67.36,     0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.22568 AT (  564160.38,  4192207.75,     64.31,     0.00)  DC     NA


NEWLAB_B 1ST HIGHEST VALUE IS     0.14160 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.09701 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.08579 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.07536 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.07527 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.06454 AT (  564487.38,  4192391.25,     80.16,     0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.06176 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.06118 AT (  564525.06,  4192613.75,     85.65,     0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.03974 AT (  564294.50,  4192949.00,     85.65,     0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.03689 AT (  564735.81,  4192658.00,    100.28,     0.00)  DC     NA


NEWLAB_C 1ST HIGHEST VALUE IS     0.09807 AT (  565009.00,  4192130.00,    110.64,     0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.09392 AT (  565700.06,  4191711.25,    108.20,     0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.09287 AT (  565700.06,  4191711.25,    109.42,     0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.08864 AT (  564945.62,  4192065.50,    102.72,     0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.08162 AT (  564926.69,  4192158.75,    109.42,     0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.02999 AT (  564729.75,  4192662.25,    100.28,     0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.02990 AT (  564735.81,  4192658.00,    100.28,     0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.02146 AT (  564591.56,  4192414.75,     83.82,     0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.01919 AT (  566093.38,  4191024.75,    114.60,     0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.01874 AT (  566063.25,  4190799.75,    101.19,     0.00)  DC     NA
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                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


                 ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                         NETWORK
GROUP ID                      AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_D 1ST HIGHEST VALUE IS     0.03583 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.03569 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.01382 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.01310 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.01154 AT (  565202.31,  4192629.00,    160.32,    0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.01146 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.01144 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.01119 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.01054 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.00753 AT (  564735.81,  4192658.00,    100.28,    0.00)  DC     NA

NEWLAB_E 1ST HIGHEST VALUE IS     0.05378 AT (  565328.31,  4191032.50,     74.68,    0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.04413 AT (  565698.50,  4190595.00,     81.08,    0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.04205 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.03788 AT (  564591.56,  4192414.75,     83.82,    0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.03739 AT (  565729.00,  4190469.25,     81.08,    0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.03707 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.03598 AT (  565787.88,  4190436.50,     82.91,    0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.03510 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.03504 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.03130 AT (  565936.88,  4190529.25,     90.83,    0.00)  DC     NA

NEWLAB_F 1ST HIGHEST VALUE IS     0.05537 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.05308 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.05278 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.04554 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.04483 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.02976 AT (  566063.25,  4190799.75,    101.19,    0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.02918 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.02833 AT (  566166.56,  4190836.25,    107.59,    0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.02065 AT (  564729.75,  4192662.25,    100.28,    0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.02060 AT (  564735.81,  4192658.00,    100.28,    0.00)  DC     NA



                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


                 ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                         NETWORK
GROUP ID                      AVERAGE CONC          RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_G 1ST HIGHEST VALUE IS     0.03976 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.02907 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.01220 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.01218 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.01038 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.00685 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.00525 AT (  566166.56,  4190836.25,    107.59,    0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.00517 AT (  566063.25,  4190799.75,    101.19,    0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.00504 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.00465 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA

DAVISNEW 1ST HIGHEST VALUE IS     0.08186 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.06902 AT (  565202.31,  4192629.00,    160.32,    0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.06649 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA
         4TH HIGHEST VALUE IS     0.05984 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
         5TH HIGHEST VALUE IS     0.04608 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
         6TH HIGHEST VALUE IS     0.04267 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
         7TH HIGHEST VALUE IS     0.04016 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
         8TH HIGHEST VALUE IS     0.02406 AT (  564735.81,  4192658.00,    100.28,    0.00)  DC     NA
         9TH HIGHEST VALUE IS     0.02393 AT (  564729.75,  4192662.25,    100.28,    0.00)  DC     NA
        10TH HIGHEST VALUE IS     0.02252 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA

STAN_NEW 1ST HIGHEST VALUE IS     0.13226 AT (  565202.31,  4192629.00,    160.32,    0.00)  DC     NA
         2ND HIGHEST VALUE IS     0.13079 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA
         3RD HIGHEST VALUE IS     0.11815 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
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                  4TH HIGHEST VALUE IS        0.05690 AT (  565009.00,  4192130.00,     110.64,     0.00) DC      NA
                  5TH HIGHEST VALUE IS        0.05035 AT (  565700.06,  4191711.25,     109.42,     0.00) DC      NA
                  6TH HIGHEST VALUE IS        0.04789 AT (  564926.69,  4192158.75,     109.42,     0.00) DC      NA
                  7TH HIGHEST VALUE IS        0.04555 AT (  565700.06,  4191711.25,     108.20,     0.00) DC      NA
                  8TH HIGHEST VALUE IS        0.03661 AT (  566093.38,  4191024.75,     114.60,     0.00) DC      NA
                  9TH HIGHEST VALUE IS        0.03626 AT (  567269.62,  4189942.75,     174.65,     0.00) DC      NA
                 10TH HIGHEST VALUE IS        0.03196 AT (  566729.00,  4190469.25,     136.86,     0.00) DC      NA



                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                       ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                             NETWORK
GROUP ID                          AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWENG   1ST HIGHEST VALUE IS        0.19549 AT (  565009.00,  4192130.00,     110.64,     0.00) DC      NA
         2ND HIGHEST VALUE IS        0.19206 AT (  564945.62,  4192065.50,     102.72,     0.00) DC      NA
         3RD HIGHEST VALUE IS        0.18644 AT (  565700.06,  4191711.25,     109.42,     0.00) DC      NA
         4TH HIGHEST VALUE IS        0.18477 AT (  565700.06,  4191711.25,     108.20,     0.00) DC      NA
         5TH HIGHEST VALUE IS        0.16590 AT (  564926.69,  4192158.75,     109.42,     0.00) DC      NA
         6TH HIGHEST VALUE IS        0.11953 AT (  566093.38,  4191024.75,     114.60,     0.00) DC      NA
         7TH HIGHEST VALUE IS        0.09215 AT (  566166.56,  4190836.25,     107.59,     0.00) DC      NA
         8TH HIGHEST VALUE IS        0.08907 AT (  565144.62,  4192620.50,     154.84,     0.00) DC      NA
         9TH HIGHEST VALUE IS        0.08677 AT (  566063.25,  4190799.75,     101.19,     0.00) DC      NA
        10TH HIGHEST VALUE IS        0.08240 AT (  564735.81,  4192658.00,     100.28,     0.00) DC      NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley -  12/2003; vjh - Strawberry Canyon Receptor          ***
*** Model Executed on 02/06/04 at 11:00:16 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Can-Strawberry.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Can-Strawberry.LST

   Met File - D:\Beest\UCBerk\10-03\met2\lbl-97a.asc

       Number of sources -       142
Number of source groups -         7
    Number of receptors -         1
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
WHSTK1_8	0	0.44700E-04	564704.4	4191782.8	66.8	31.70	293.15	7.12	0.19	YES	
NWAF9	0	0.60100E-03	564718.8	4191791.2	66.8	29.57	293.15	16.48	0.74	YES	
WHSTK10	0	0.44700E-04	564724.4	4191826.0	66.8	8.60	293.15	7.12	0.34	YES	
MHSTK1	0	0.24000E-03	564794.4	4191795.8	74.8	7.61	293.15	17.25	0.34	YES	
MHSTK2	0	0.24000E-03	564798.6	4191843.0	74.8	10.89	293.15	17.25	0.29	YES	
MHSTK3	0	0.24000E-03	564794.1	4191843.0	74.8	10.89	293.15	17.25	0.48	YES	
MHSTK4	0	0.24000E-03	564800.9	4191787.2	74.8	15.61	293.15	17.25	0.33	YES	
MHSTK6	0	0.24000E-03	564801.3	4191808.2	74.8	10.94	293.15	17.25	0.34	YES	
KHSTK1	0	0.33000E-02	564761.1	4191879.8	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK2	0	0.33000E-02	564759.4	4191891.8	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK3	0	0.33000E-02	564732.4	4191877.5	72.7	18.45	293.15	1.28	2.76	YES	
KHSTK4	0	0.33000E-02	564731.4	4191889.0	72.7	18.45	293.15	1.28	2.76	YES	
BHSTK1	0	0.45600E-03	564678.9	4191889.0	67.4	27.85	293.15	2.78	1.26	YES	
BHSTK2	0	0.45600E-03	564675.0	4191896.8	67.4	29.68	293.15	2.78	1.26	YES	
BHSTK3	0	0.45600E-03	564704.5	4191898.0	67.4	29.68	293.15	2.78	1.26	YES	
BHSTK4	0	0.45600E-03	564707.4	4191887.8	67.4	33.34	293.15	2.78	0.37	YES	
BHSTK5	0	0.45600E-03	564691.6	4191888.0	67.4	33.34	293.15	2.78	0.37	YES	
VLSBSTK1	0	0.77100E-03	564933.6	4191633.2	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK2	0	0.77100E-03	564954.0	4191566.5	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK3	0	0.77100E-03	565051.3	4191594.8	64.4	27.04	293.15	3.97	1.22	YES	
VLSBSTK4	0	0.77100E-03	565030.6	4191662.2	64.4	27.04	293.15	3.97	1.22	YES	
LSASTK1	0	0.16600E-02	564892.2	4191637.2	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK2	0	0.16600E-02	564875.9	4191632.8	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK3	0	0.16600E-02	564907.6	4191580.5	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK4	0	0.16600E-02	564897.1	4191578.0	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK5	0	0.16600E-02	564908.6	4191576.2	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK6	0	0.16600E-02	564899.1	4191573.5	64.4	28.31	293.15	5.18	1.22	YES	
LSASTK7	0	0.16600E-02	564900.8	4191572.2	64.4	28.31	293.15	5.18	0.30	YES	
LEWHSTK1	0	0.63700E-03	565605.8	4191772.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK2	0	0.63700E-03	565591.5	4191786.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK3	0	0.63700E-03	565585.9	4191792.2	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK4	0	0.63700E-03	565583.1	4191800.0	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK5	0	0.63700E-03	565598.1	4191787.8	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK6	0	0.63700E-03	565619.4	4191775.8	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK7	0	0.63700E-03	565608.8	4191787.2	106.7	12.80	293.15	3.11	0.36	YES	
LEWHSTK8	0	0.63700E-03	565597.6	4191800.5	106.7	12.80	293.15	3.11	0.30	YES	
LEWHSTK9	0	0.63700E-03	565593.3	4191808.2	106.7	12.80	293.15	3.11	0.36	YES	
LATHSTK1	0	0.27200E-02	565555.1	4191799.2	104.6	42.37	293.15	6.28	0.34	YES	
LATHSTK2	0	0.27200E-02	565561.1	4191812.0	104.6	36.88	293.15	6.28	0.70	YES	
LATHSTK3	0	0.27200E-02	565531.6	4191800.2	104.6	36.88	293.15	6.28	0.48	YES	

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
LATHSTK4	0	0.27200E-02	565515.1	4191799.5	104.6	37.19	293.15	6.28	0.96	YES	
LATHSTK5	0	0.27200E-02	565539.7	4191794.2	104.6	42.37	293.15	6.28	0.70	YES	
LATHSTK6	0	0.27200E-02	565527.3	4191776.0	104.6	38.40	293.15	6.28	0.74	YES	
LATHSTK7	0	0.27200E-02	565544.9	4191781.5	104.6	38.40	293.15	6.28	0.31	YES	
LATHSTK8	0	0.27200E-02	565562.3	4191787.0	104.6	38.40	293.15	6.28	0.70	YES	
TANHSTKA	0	0.23500E-02	565492.1	4191793.2	100.6	39.32	293.15	2.94	1.69	YES	
TANHSTKB	0	0.23500E-02	565496.8	4191794.0	100.6	39.32	293.15	2.94	1.69	YES	
TANHSTKC	0	0.23500E-02	565494.1	4191787.2	100.6	39.32	293.15	2.94	1.69	YES	

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TANHSTKD       0   0.23500E-02  565499.1 4191788.2  100.6   39.32  293.15    2.94    1.69      YES
HHSTKA         0   0.26000E-02  565540.8 4191749.5  103.6   20.12  293.15    4.15    1.52      YES
HHSTKB         0   0.26000E-02  565565.6 4191756.8  103.6   20.12  293.15    4.15    1.52      YES
HHSTKC         0   0.26000E-02  565576.8 4191717.8  103.6   20.12  293.15    4.15    1.52      YES
HHSTKD         0   0.26000E-02  565553.2 4191710.5  103.6   20.12  293.15    4.15    1.52      YES
HHSTKE         0   0.26000E-02  565543.4 4191746.5  103.6   20.12  293.15    4.15    0.81      YES
GHSTK1         0   0.36700E-03  565507.1 4191756.0  103.6   16.06  293.15    5.92    0.30      YES
GHSTK2         0   0.36700E-03  565510.6 4191744.8  103.6   16.06  293.15    5.92    0.25      YES
GHSTK3         0   0.36700E-03  565512.4 4191739.0  103.6   16.37  293.15    5.92    0.30      YES
GHSTK4         0   0.36700E-03  565514.7 4191737.8  103.6   15.91  293.15    5.92    0.31      YES
GHSTK5         0   0.36700E-03  565514.9 4191732.2  103.6   16.06  293.15    5.92    0.30      YES
GHSTK6         0   0.36700E-03  565500.2 4191755.2  103.6   16.12  293.15    5.92    0.30      YES
GHSTK7         0   0.36700E-03  565501.1 4191753.0  103.6   16.37  293.15    5.92    0.84      YES
GHSTK8         0   0.36700E-03  565503.7 4191744.2  103.6   16.00  293.15    5.92    0.30      YES
GHSTK9         0   0.36700E-03  565505.2 4191740.2  103.6   16.37  293.15    5.92    0.26      YES
GHSTK10        0   0.36700E-03  565506.9 4191735.2  103.6   16.06  293.15    5.92    0.30      YES
GHSTK11        0   0.36700E-03  565509.7 4191728.2  103.6   16.22  293.15    5.92    0.30      YES
GHSTK12        0   0.36700E-03  565509.0 4191725.5  103.6   16.06  293.15    5.92    0.30      YES
GHSTK13        0   0.36700E-03  565516.9 4191725.8  103.6   15.91  293.15    5.92    0.40      YES
CHSTK1         0   0.86900E-04  565393.9 4192008.8  110.3   26.85  293.15    2.00    1.00      YES
HESSTK1        0   0.73300E-03  565234.6 4191926.2   98.2   15.39  293.15    2.00    1.00      YES
HILSTK1        0   0.72100E-03  564874.6 4191815.0   80.4   14.96  293.15    2.00    1.00      YES
MULSTK1        0   0.53300E-05  564779.7 4191737.8   74.4   17.24  293.15    2.00    1.00      YES
WELSTK1        0   0.13600E-04  564933.7 4191795.2   81.7    5.89  293.15    2.00    1.00      YES
PRINTA         0   0.10400E-03  564584.7 4191553.2   60.0    8.91  293.15    2.70    0.84      YES
PRINTB         0   0.10400E-03  564614.4 4191520.8   60.0    8.91  293.15    2.70    0.84      YES
PRINTC         0   0.10400E-03  564643.1 4191525.5   60.0    8.91  293.15    2.70    0.60      YES
COGEN          0   0.97700E+00  564876.0 4191492.0   71.9   12.77  430.37   10.45    2.28      YES
BOILER#2       0   0.12440E-01  564863.6 4191499.5   71.9    8.80  522.82    7.97    1.52      YES
BOILER#3       0   0.47000E-01  564881.0 4191505.8   71.9    8.80  554.11   10.53    1.52      YES
BOILER#4       0   0.56800E-01  564885.8 4191495.8   71.9    8.80  566.65   12.63    1.52      YES
POURING        0   0.22400E-02  564847.8 4191467.0   70.1   14.94  293.15    4.62    0.56      YES


                                  *** POINT SOURCE DATA ***


            NUMBER EMISSION RATE                BASE    STACK   STACK    STACK      STACK     BUILDING EMISSION RATE
   SOURCE   PART.  (GRAMS/SEC)     X        Y    ELEV.  HEIGHT  TEMP.   EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
     ID     CATS.             (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


   ENG_62       0   0.47241E-02  565567.6 4191086.5   85.1    4.57  800.37  146.01    0.13      NO
   ENG_63       0   0.23621E-02  564668.2 4191897.5   70.2    4.57  799.85  152.00    0.13      YES
   ENG_64       0   0.72350E-03  565452.9 4191687.0   98.2    3.05  817.07   58.47    0.08      YES
   ENG_105      0   0.74200E-01  564939.1 4191457.8   71.1    4.57  810.96   70.10    0.23      YES
   ENG_106      0   0.62205E-01  564991.6 4191614.5   73.6   30.48  810.96   70.10    0.20      YES
   ENG_107      0   0.49776E-01  564767.4 4191906.8   76.2    0.00  810.96   70.10    0.18      YES
   ENG_108      0   0.49776E-01  564930.6 4191564.2   68.8    7.62  810.96   70.10    0.18      YES
   ENG_109      0   0.16596E-01  565615.8 4191801.2  111.7    3.05  810.96   70.10    0.15      YES
   ENG_110      0   0.82858E-02  564655.9 4191874.5   68.4    4.57  810.96   70.10    0.10      YES
   ENG_111      0   0.23806E-01  565091.1 4191757.8   78.9    3.05  810.96   70.10    0.11      YES
   ENG_112      0   0.20714E-01  565542.8 4191208.2   85.7    3.05  810.93   70.10    0.10      NO
   ENG_113      0   0.20714E-01  565673.6 4191194.8   92.0    3.05  810.93   70.10    0.10      NO
   ENG_114      0   0.20714E-01  565601.4 4191014.2   86.0    3.05  810.93   70.10    0.10      NO
   ENG_115      0   0.20714E-01  565702.9 4190991.8   91.4    3.05  810.93   70.10    0.10      NO
   ENG_117      0   0.20714E-01  565575.9 4191609.0   99.3    3.05  810.96   70.10    0.10      YES
   ENG_118      0   0.98935E-02  564654.8 4191890.5   68.6    4.57  810.96   70.10    0.13      YES
   ENG_119      0   0.14531E-01  564728.8 4191771.0   70.5    4.57  810.96   70.10    0.08      YES
   ENG_120      0   0.10450E-01  565318.0 4191422.5   86.1    3.05  810.96   70.10    0.08      YES
   ENG_121      0   0.10388E-01  565926.2 4191443.0  118.9    3.05  810.93   70.10    0.08      NO
   ENG_123      0   0.12800E-01  565259.4 4191652.8   88.3    3.05  810.96   70.10    0.08      YES
   ENG_125      0   0.41058E-01  564811.2 4191460.8   67.7    3.05  810.96   70.10    0.08      YES
   ENG_126      0   0.33143E-02  565137.9 4191441.5   77.6    0.00  810.96   70.10    0.08      YES
   ENG_128      0   0.41429E-02  565469.2 4191955.2  109.8    3.05  810.96   70.10    0.05      YES
   ENG_129      0   0.41429E-02  565383.1 4191740.2   97.0    2.44  810.96   70.10    0.05      YES
   ENG_130      0   0.25692E-02  565533.3 4191713.5   98.9    2.44  815.40  134.54    0.08      YES
   ENG_131      0   0.72350E-03  564970.3 4191484.2   71.3    1.83  817.07   58.47    0.08      YES
   ENG_132      0   0.72350E-03  564800.3 4191781.8   74.3    1.83  817.07   58.47    0.08      YES
   E134_133     0   0.18674E-01  565380.0 4191477.8  104.3    3.05  769.29  135.05    0.13      YES
   NEWLAB_A     0   0.53000E-01  564808.8 4191708.2   70.5    6.10  293.15    3.97    1.00      YES
   NEWLAB_B     0   0.10800E-01  565047.0 4191787.5   77.9    6.10  293.15    3.97    1.00      YES
   NEWLAB_C     0   0.59900E-02  565301.9 4191832.0   90.7    6.10  293.15    3.97    1.00      YES
   NEWLAB_D     0   0.31900E-02  565490.2 4191861.5  106.7    6.10  293.15    3.97    1.00      YES
   NEWLAB_E     0   0.85200E-02  565089.5 4191460.8   73.6    6.10  293.15    3.97    1.00      YES
   NEWLAB_F     0   0.67500E-02  565368.8 4191521.8   86.7    6.10  293.15    3.97    1.00      YES
   NEWLAB_G     0   0.19400E-02  565641.7 4191569.5  102.4    6.10  293.15    3.97    1.00      YES
   ENG_STNL     0   0.69563E-02  565539.1 4191905.2  114.2    2.13  769.26   76.14    0.18      YES
   ENG_DVS      0   0.69563E-02  565364.1 4191990.5  109.8    2.13  769.26   76.14    0.18      YES
   ENG_MCCN     0   0.27825E-02  565176.4 4191928.8   93.8    2.13  810.93   59.08    0.13      YES
   ENG_SRB1     0   0.27825E-02  564595.2 4191928.2   67.3    2.13  810.93   59.08    0.13      YES
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ENGNULAB    0   0.69563E-02  564559.2 4191851.0   64.9    2.13   769.26   76.14    0.18     YES
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*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ENGMUSIC	0	0.27825E-02	565510.9	4191488.8	94.8	2.13	810.93	59.08	0.13	YES	
ENG_UNT1	0	0.27825E-02	565595.6	4191185.0	87.9	2.13	810.93	59.08	0.13	NO	
ENG_UNT2	0	0.27825E-02	565647.0	4191033.2	88.8	2.13	810.93	59.08	0.13	NO	
ENG_UNT3	0	0.27825E-02	565112.1	4191138.8	72.6	2.13	810.93	59.08	0.13	NO	
ENG116NU	0	0.58900E-02	564775.8	4191177.5	63.2	2.13	810.93	87.63	0.15	NO	
NEWSTAN1	0	0.69300E-02	565533.9	4191904.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN2	0	0.69300E-02	565535.5	4191899.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN3	0	0.69300E-02	565537.2	4191894.5	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN4	0	0.69300E-02	565538.8	4191889.8	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN5	0	0.69300E-02	565545.4	4191891.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN6	0	0.69300E-02	565543.6	4191896.2	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN7	0	0.69300E-02	565542.0	4191901.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN8	0	0.69300E-02	565540.3	4191905.8	112.9	41.90	293.15	17.25	1.32	YES	
NEWDAVS1	0	0.66300E-02	565340.6	4191981.0	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS2	0	0.66300E-02	565338.7	4191980.8	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS3	0	0.66300E-02	565329.5	4191986.8	109.2	33.79	293.15	13.62	0.86	YES	
NEWDAVS4	0	0.66300E-02	565328.4	4191986.2	109.2	33.79	293.15	13.62	0.86	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.24000E-03	564821.2	4191842.8	74.8	6.95	0.07	2.42	
PAINT1	0	0.31900E-03	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.31900E-03	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.31900E-03	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.31900E-03	564865.7	4191751.0	77.0	4.57	3.54	4.25	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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  GROUP ID                              SOURCE IDs


  ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
           KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
           LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
           LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
           TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
           GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
           WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
           PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
           ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
           ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133, NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F,
NEWLAB_G,
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          ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1, ENG_UNT2, ENG_UNT3, ENG116NU, NEWSTAN1,
NEWSTAN2,

          NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  GEN       ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
ENG_113 ,

          ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 , ENG_128 ,
ENG_129 ,

          ENG_130 , ENG_131 , ENG_132 , E134_133, ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1,
ENG_UNT2,

          ENG_UNT3, ENG116NU,

  LABS      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

          KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,


                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID                                        SOURCE IDs

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

          WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3,
NEWSTAN4,

          NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

  OTHER     PRINTA  , PRINTB  , PRINTC  , POURING , PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

  BOILERS   BOILER#2, BOILER#3, BOILER#4,

  COGEN     COGEN   ,


                       *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CANCER   IN MICROGRAMS/M**3                      **

                                                                                            NETWORK
  GROUP ID                  AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  ALL    1ST HIGHEST VALUE IS      3.50645 AT (  566200.00, 4191300.00,    158.00,    0.00) DC     NA
         2ND HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
         3RD HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
         4TH HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
         5TH HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
         6TH HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
         7TH HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
         8TH HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
         9TH HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
         10TH HIGHEST VALUE IS      0.00000 AT (      0.00,      0.00,      0.00,    0.00)
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GEN    1ST HIGHEST VALUE IS      1.73129 AT (  566200.00,  4191300.00,      158.00,      0.00)  DC      NA
       2ND HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       3RD HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       4TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       5TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       6TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       7TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       8TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       9TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
      10TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)

LABS   1ST HIGHEST VALUE IS      0.65797 AT (  566200.00,  4191300.00,      158.00,      0.00)  DC      NA
       2ND HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       3RD HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       4TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       5TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       6TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       7TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       8TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       9TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)
      10TH HIGHEST VALUE IS      0.00000 AT (       0.00,        0.00,        0.00,      0.00)


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                      AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


COMBUST 1ST HIGHEST VALUE IS     1.10750 AT (  566200.00,  4191300.00,      158.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        5TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        6TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        7TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        8TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        9TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       10TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)

OTHER   1ST HIGHEST VALUE IS     0.00983 AT (  566200.00,  4191300.00,      158.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        5TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        6TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        7TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        8TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        9TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       10TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)

BOILERS 1ST HIGHEST VALUE IS     0.14920 AT (  566200.00,  4191300.00,      158.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        5TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        6TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        7TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        8TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        9TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
       10TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)


                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CANCER   IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                      AVERAGE CONC            RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


COGEN   1ST HIGHEST VALUE IS     0.95830 AT (  566200.00,  4191300.00,      158.00,      0.00)  DC      NA
        2ND HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        3RD HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
        4TH HIGHEST VALUE IS     0.00000 AT (       0.00,        0.00,        0.00,      0.00)
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 5TH HIGHEST VALUE IS       0.00000 AT (      0.00,      0.00,      0.00,      0.00)
 6TH HIGHEST VALUE IS       0.00000 AT (      0.00,      0.00,      0.00,      0.00)
 7TH HIGHEST VALUE IS       0.00000 AT (      0.00,      0.00,      0.00,      0.00)
 8TH HIGHEST VALUE IS       0.00000 AT (      0.00,      0.00,      0.00,      0.00)
 9TH HIGHEST VALUE IS       0.00000 AT (      0.00,      0.00,      0.00,      0.00)
10TH HIGHEST VALUE IS       0.00000 AT (      0.00,      0.00,      0.00,      0.00)
```

*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh Receptor Grid - Chronic   ***
*** Model Executed on 02/06/04 at 11:00:26 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Chron.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Chron.LST

   Met File - D:\Beest\UCBerk\10-03\met2\lbl-97a.asc

        Number of sources -   142
Number of source groups -   37
    Number of receptors -   1431

                              *** POINT SOURCE DATA ***

            NUMBER EMISSION RATE   BASE   STACK   STACK   STACK   STACK   BUILDING EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT TEMP.   EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC) (METERS)   BY
- -

  WHSTK1_8   0   0.21000E-05 564704.4 4191782.8   66.8   31.70   293.15   7.12   0.19   YES
  NWAF9   0   0.75100E-04 564718.8 4191791.2   66.8   29.57   293.15   16.48   0.74   YES
  WHSTK10   0   0.21000E-05 564724.4 4191826.0   66.8   8.60   293.15   7.12   0.34   YES
  MHSTK1   0   0.37600E-05 564794.4 4191795.8   74.8   7.61   293.15   17.25   0.34   YES
  MHSTK2   0   0.37600E-05 564798.6 4191843.0   74.8   10.89   293.15   17.25   0.29   YES
  MHSTK3   0   0.37600E-05 564794.1 4191843.0   74.8   10.89   293.15   17.25   0.48   YES
  MHSTK4   0   0.37600E-05 564800.9 4191787.2   74.8   15.61   293.15   17.25   0.33   YES
  MHSTK6   0   0.37600E-05 564801.3 4191808.2   74.8   10.94   293.15   17.25   0.34   YES
  KHSTK1   0   0.11500E-03 564761.1 4191879.8   72.7   18.45   293.15   1.28   2.76   YES
  KHSTK2   0   0.11500E-03 564759.4 4191891.8   72.7   18.45   293.15   1.28   2.76   YES
  KHSTK3   0   0.11500E-03 564732.4 4191877.5   72.7   18.45   293.15   1.28   2.76   YES
  KHSTK4   0   0.11500E-03 564731.4 4191889.0   72.7   18.45   293.15   1.28   2.76   YES
  BHSTK1   0   0.11600E-04 564678.9 4191889.0   67.4   27.85   293.15   2.78   1.26   YES
  BHSTK2   0   0.11600E-04 564675.0 4191896.8   67.4   29.68   293.15   2.78   1.26   YES
  BHSTK3   0   0.11600E-04 564704.5 4191898.0   67.4   29.68   293.15   2.78   1.26   YES
  BHSTK4   0   0.11600E-04 564707.4 4191887.8   67.4   33.34   293.15   2.78   0.37   YES
  BHSTK5   0   0.11600E-04 564691.6 4191888.0   67.4   33.34   293.15   2.78   0.37   YES
  VLSBSTK1   0   0.12100E-03 564933.6 4191633.2   64.4   27.04   293.15   3.97   1.22   YES
  VLSBSTK2   0   0.12100E-03 564954.0 4191566.5   64.4   27.04   293.15   3.97   1.22   YES
  VLSBSTK3   0   0.12100E-03 565051.3 4191594.8   64.4   27.04   293.15   3.97   1.22   YES
  VLSBSTK4   0   0.12100E-03 565030.6 4191662.2   64.4   27.04   293.15   3.97   1.22   YES
  LSASTK1   0   0.70000E-04 564892.2 4191637.2   64.4   28.31   293.15   5.18   1.22   YES
  LSASTK2   0   0.70000E-04 564875.3 4191632.8   64.4   28.31   293.15   5.18   1.22   YES
  LSASTK3   0   0.70000E-04 564907.6 4191580.5   64.4   28.31   293.15   5.18   1.22   YES
  LSASTK4   0   0.70000E-04 564897.1 4191578.0   64.4   28.31   293.15   5.18   1.22   YES
  LSASTK5   0   0.70000E-04 564908.6 4191576.2   64.4   28.31   293.15   5.18   1.22   YES
  LSASTK6   0   0.70000E-04 564899.1 4191573.5   64.4   28.31   293.15   5.18   1.22   YES
  LSASTK7   0   0.70000E-04 564900.8 4191572.2   64.4   28.31   293.15   5.18   0.30   YES
  LEWHSTK1   0   0.21600E-05 565605.8 4191772.0 106.7   12.80   293.15   3.11   0.36   YES
  LEWHSTK2   0   0.21600E-05 565591.5 4191786.0 106.7   12.80   293.15   3.11   0.36   YES
  LEWHSTK3   0   0.21600E-05 565585.9 4191792.2 106.7   12.80   293.15   3.11   0.36   YES
  LEWHSTK4   0   0.21600E-05 565583.1 4191800.0 106.7   12.80   293.15   3.11   0.36   YES
  LEWHSTK5   0   0.21600E-05 565598.1 4191787.8 106.7   12.80   293.15   3.11   0.36   YES
  LEWHSTK6   0   0.21600E-05 565619.4 4191775.8 106.7   12.80   293.15   3.11   0.36   YES
  LEWHSTK7   0   0.21600E-05 565608.8 4191787.2 106.7   12.80   293.15   3.11   0.36   YES
  LEWHSTK8   0   0.21600E-05 565597.6 4191800.5 106.7   12.80   293.15   3.11   0.30   YES
  LEWHSTK9   0   0.21600E-05 565593.3 4191808.2 106.7   12.80   293.15   3.11   0.36   YES
  LATHSTK1   0   0.92400E-05 565555.1 4191799.2 104.6   42.37   293.15   6.28   0.34   YES
  LATHSTK2   0   0.92400E-05 565561.1 4191812.0 104.6   36.88   293.15   6.28   0.70   YES
  LATHSTK3   0   0.92400E-05 565531.6 4191800.2 104.6   36.88   293.15   6.28   0.48   YES

                              *** POINT SOURCE DATA ***

            NUMBER EMISSION RATE   BASE   STACK   STACK   STACK   STACK   BUILDING EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT TEMP.   EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC) (METERS)   BY
- -

  LATHSTK4   0   0.92400E-05 565515.1 4191799.5 104.6   37.19   293.15   6.28   0.96   YES
  LATHSTK5   0   0.92400E-05 565539.7 4191794.2 104.6   42.37   293.15   6.28   0.70   YES
  LATHSTK6   0   0.92400E-05 565527.3 4191776.0 104.6   38.40   293.15   6.28   0.74   YES
  LATHSTK7   0   0.92400E-05 565544.9 4191781.5 104.6   38.40   293.15   6.28   0.31   YES
  LATHSTK8   0   0.92400E-05 565562.3 4191787.0 104.6   38.40   293.15   6.28   0.70   YES
  TANHSTKA   0   0.79700E-05 565492.1 4191793.2 100.6   39.32   293.15   2.94   1.69   YES
  TANHSTKB   0   0.79700E-05 565496.8 4191794.0 100.6   39.32   293.15   2.94   1.69   YES
  TANHSTKC   0   0.79700E-05 565494.1 4191787.2 100.6   39.32   293.15   2.94   1.69   YES

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TANHSTKD      0   0.79700E-05  565499.1 4191788.2  100.6   39.32  293.15    2.94    1.69    YES
HHSTKA        0   0.19400E-04  565540.8 4191749.5  103.6   20.12  293.15    4.15    1.52    YES
HHSTKB        0   0.19400E-04  565565.6 4191756.8  103.6   20.12  293.15    4.15    1.52    YES
HHSTKC        0   0.19400E-04  565576.8 4191717.8  103.6   20.12  293.15    4.15    1.52    YES
HHSTKD        0   0.19400E-04  565553.2 4191710.5  103.6   20.12  293.15    4.15    1.52    YES
HHSTKE        0   0.19400E-04  565543.4 4191746.5  103.6   20.12  293.15    4.15    0.81    YES
GHSTK1        0   0.12100E-05  565507.1 4191756.0  103.6   16.06  293.15    5.92    0.30    YES
GHSTK2        0   0.12100E-05  565510.6 4191744.8  103.6   16.06  293.15    5.92    0.25    YES
GHSTK3        0   0.12100E-05  565512.4 4191739.0  103.6   16.37  293.15    5.92    0.30    YES
GHSTK4        0   0.12100E-05  565514.7 4191737.8  103.6   15.91  293.15    5.92    0.31    YES
GHSTK5        0   0.12100E-05  565514.9 4191732.2  103.6   16.06  293.15    5.92    0.30    YES
GHSTK6        0   0.12100E-05  565500.2 4191755.2  103.6   16.12  293.15    5.92    0.30    YES
GHSTK7        0   0.12100E-05  565501.1 4191753.0  103.6   16.37  293.15    5.92    0.84    YES
GHSTK8        0   0.12100E-05  565503.7 4191744.2  103.6   16.00  293.15    5.92    0.30    YES
GHSTK9        0   0.12100E-05  565505.2 4191740.2  103.6   16.37  293.15    5.92    0.26    YES
GHSTK10       0   0.12100E-05  565506.9 4191735.2  103.6   16.06  293.15    5.92    0.30    YES
GHSTK11       0   0.12100E-05  565509.7 4191728.2  103.6   16.22  293.15    5.92    0.30    YES
GHSTK12       0   0.12100E-05  565509.0 4191725.5  103.6   16.06  293.15    5.92    0.30    YES
GHSTK13       0   0.12100E-05  565516.9 4191725.8  103.6   15.91  293.15    5.92    0.40    YES
CHSTK1        0   0.30600E-04  565393.9 4192008.8  110.3   26.85  293.15    2.00    1.00    YES
HESSTK1       0   0.98800E-04  565234.6 4191926.2   98.2   15.39  293.15    2.00    1.00    YES
HILSTK1       0   0.28000E-02  564874.6 4191815.0   80.4   14.96  293.15    2.00    1.00    YES
MULSTK1       0   0.12000E-06  564779.7 4191737.8   74.4   17.24  293.15    2.00    1.00    YES
WELSTK1       0   0.39400E-05  564933.7 4191795.2   81.7    5.89  293.15    2.00    1.00    YES
PRINTA        0   0.12300E-04  564584.7 4191553.2   60.0    8.91  293.15    2.70    0.84    YES
PRINTB        0   0.12300E-04  564614.4 4191520.8   60.0    8.91  293.15    2.70    0.84    YES
PRINTC        0   0.12300E-04  564643.1 4191525.5   60.0    8.91  293.15    2.70    0.60    YES
COGEN         0   0.17900E-01  564876.0 4191492.0   71.9   12.77  430.37   10.45    2.28    YES
BOILER#2      0   0.11800E-03  564863.6 4191499.5   71.9    8.80  522.82    7.97    1.52    YES
BOILER#3      0   0.44700E-03  564881.9 4191505.8   71.9    8.80  554.11   10.53    1.52    YES
BOILER#4      0   0.54000E-03  564885.8 4191495.8   71.9    8.80  566.65   12.63    1.52    YES
POURING       0   0.16100E-05  564847.8 4191467.0   70.1   14.94  293.15    4.62    0.56    YES
```

*** POINT SOURCE DATA ***

```
             NUMBER EMISSION RATE                BASE   STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)    X        Y    ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
     ID      CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   ENG_62     0   0.31494E-05  565567.6 4191086.5   85.1    4.57  800.37  146.01    0.13    NO
   ENG_63     0   0.15747E-05  564668.2 4191897.5   70.2    4.57  799.85  152.00    0.13    YES
   ENG_64     0   0.48231E-06  565452.9 4191687.0   98.2    3.05  817.07   58.47    0.08    YES
   ENG_105    0   0.19787E-04  564939.1 4191457.8   71.1    4.57  810.96   70.10    0.23    YES
   ENG_106    0   0.41470E-04  564991.6 4191614.5   73.6   30.48  810.96   70.10    0.20    YES
   ENG_107    0   0.33184E-04  564767.4 4191906.8   76.2    0.00  810.96   70.10    0.18    YES
   ENG_108    0   0.33184E-04  564930.6 4191564.2   68.8    7.62  810.96   70.10    0.18    YES
   ENG_109    0   0.11064E-04  565615.8 4191801.2  111.7    3.05  810.96   70.10    0.15    YES
   ENG_110    0   0.55239E-05  564655.9 4191874.5   68.4    4.57  810.96   70.10    0.10    YES
   ENG_111    0   0.15871E-04  565091.1 4191757.8   78.9    3.05  810.96   70.10    0.11    YES
   ENG_112    0   0.13810E-04  565542.8 4191208.2   85.7    3.05  810.93   70.10    0.10    NO
   ENG_113    0   0.13810E-04  565673.6 4191194.8   92.0    3.05  810.93   70.10    0.10    NO
   ENG_114    0   0.13810E-04  565601.4 4191014.2   86.0    3.05  810.93   70.10    0.10    NO
   ENG_115    0   0.13810E-04  565702.9 4190991.8   91.4    3.05  810.93   70.10    0.10    NO
   ENG_117    0   0.13810E-04  565575.9 4191609.0   99.3    3.05  810.96   70.10    0.10    YES
   ENG_118    0   0.65956E-05  564654.8 4191890.5   68.6    4.57  810.96   70.10    0.13    YES
   ENG_119    0   0.96873E-05  564728.8 4191771.0   70.5    4.57  810.96   70.10    0.08    YES
   ENG_120    0   0.69666E-05  565318.0 4191422.5   86.1    3.05  810.96   70.10    0.08    YES
   ENG_121    0   0.69254E-05  565926.2 4191443.0  118.9    3.05  810.93   70.10    0.08    NO
   ENG_123    0   0.85331E-05  565259.4 4191652.8   88.3    3.05  810.96   70.10    0.08    YES
   ENG_125    0   0.27372E-05  564811.2 4191460.8   67.7    3.05  810.96   70.10    0.08    YES
   ENG_126    0   0.22095E-05  565137.9 4191441.5   77.6    0.00  810.96   70.10    0.08    YES
   ENG_128    0   0.27619E-05  565469.2 4191955.2  109.8    3.05  810.96   70.10    0.05    YES
   ENG_129    0   0.27619E-05  565383.1 4191740.2   97.0    2.44  810.96   70.10    0.05    YES
   ENG_130    0   0.17128E-05  565533.3 4191713.5   98.9    2.44  815.40  134.54    0.08    YES
   ENG_131    0   0.48231E-06  564970.3 4191484.2   71.3    1.83  817.07   58.47    0.08    YES
   ENG_132    0   0.48231E-06  564800.3 4191781.8   74.3    1.83  817.07   58.47    0.08    YES
   E134_133   0   0.12449E-04  565380.0 4191508.0  104.3    3.05  769.29  135.05    0.13    YES
   NEWLAB_A   0   0.24300E-02  564808.8 4191708.2   70.5    6.10  293.15    3.97    1.00    YES
   NEWLAB_B   0   0.49300E-03  565047.0 4191787.5   77.9    6.10  293.15    3.97    1.00    YES
   NEWLAB_C   0   0.27500E-03  565301.9 4191832.0   90.7    6.10  293.15    3.97    1.00    YES
   NEWLAB_D   0   0.14600E-03  565490.2 4191861.5  106.7    6.10  293.15    3.97    1.00    YES
   NEWLAB_E   0   0.39100E-03  565089.5 4191460.8   73.6    6.10  293.15    3.97    1.00    YES
   NEWLAB_F   0   0.31000E-03  565368.8 4191521.8   86.7    6.10  293.15    3.97    1.00    YES
   NEWLAB_G   0   0.89100E-04  565641.7 4191569.5  102.4    6.10  293.15    3.97    1.00    YES
   ENG_STNL   0   0.46380E-05  565539.1 4191905.2  114.2    2.13  769.26   76.14    0.18    YES
   ENG_DVS    0   0.46380E-05  565364.1 4191990.5  109.8    2.13  769.26   76.14    0.18    YES
   ENG_MCCN   0   0.18550E-05  565176.4 4191928.8   93.8    2.13  810.93   59.08    0.13    YES
   ENG_SRB1   0   0.18550E-05  564595.2 4191928.2   67.3    2.13  810.93   59.08    0.13    YES
```

```
   ENGNULAB      0   0.46380E-05  564559.2 4191851.0   64.9    2.13   769.26    76.14      0.18      YES
```

<center>*** POINT SOURCE DATA ***</center>

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ENGMUSIC	0	0.18550E-05	565510.9	4191488.8	94.8	2.13	810.93	59.08	0.13	YES	
ENG_UNT1	0	0.18550E-05	565595.6	4191185.0	87.9	2.13	810.93	59.08	0.13	NO	
ENG_UNT2	0	0.18550E-05	565647.0	4191033.2	88.8	2.13	810.93	59.08	0.13	NO	
ENG_UNT3	0	0.18550E-05	565112.1	4191138.8	72.6	2.13	810.93	59.08	0.13	NO	
ENG116NU	0	0.39260E-05	564775.8	4191177.5	63.2	2.13	810.93	87.63	0.15	NO	
NEWSTAN1	0	0.31800E-03	565533.9	4191904.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN2	0	0.31800E-03	565535.5	4191899.0	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN3	0	0.31800E-03	565537.2	4191894.5	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN4	0	0.31800E-03	565538.8	4191889.8	112.9	41.90	293.15	17.25	0.61	YES	
NEWSTAN5	0	0.31800E-03	565545.4	4191891.0	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN6	0	0.31800E-03	565543.6	4191896.2	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN7	0	0.31800E-03	565542.0	4191901.0	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN8	0	0.31800E-03	565540.3	4191905.8	112.9	41.90	293.15	17.25	0.76	YES	
NEWDAVS1	0	0.30400E-03	565340.6	4191981.0	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS2	0	0.30400E-03	565338.7	4191980.8	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS3	0	0.30400E-03	565329.5	4191986.8	109.2	33.79	293.15	13.62	0.86	YES	
NEWDAVS4	0	0.30400E-03	565328.4	4191986.2	109.2	33.79	293.15	13.62	0.86	YES	

<center>*** VOLUME SOURCE DATA ***</center>

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.37600E-05	564821.2	4191842.8	74.8	6.95	0.07	2.42	
PAINT1	0	0.10600E-05	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.10600E-05	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.10600E-05	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.10600E-05	564865.7	4191751.0	77.0	4.57	3.54	4.25	

<center>*** SOURCE IDs DEFINING SOURCE GROUPS ***</center>

```
  GROUP ID                                   SOURCE IDs


  ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,
           KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,
           LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,
           LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,
           TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,
           GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
           WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
           PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
           ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
           ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133, NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F,
NEWLAB_G,
```

ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1, ENG_UNT2, ENG_UNT3, ENG116NU, NEWSTAN1,
      NEWSTAN2,

                NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

      WH   WHSTK1_8, WHSTK10 ,

      NWAF   NWAF9   ,

      MH   MHSTK1 , MHSTK2 , MHSTK3 , MHSTK4 , MHSTK5 , MHSTK6 ,

      KH   KHSTK1 , KHSTK2 , KHSTK3 , KHSTK4 ,

      BH   BHSTK1 , BHSTK2 , BHSTK3 , BHSTK4 , BHSTK5 ,

      VLSB   VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

      LSA   LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

      LEW   LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,

                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***
      GROUP ID   SOURCE IDs

      LAT   LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

      TAN   TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

      HH   HHSTKA , HHSTKB , HHSTKC , HHSTKD , HHSTKE ,

      GH   GHSTK1 , GHSTK2 , GHSTK3 , GHSTK4 , GHSTK5 , GHSTK6 , GHSTK7 , GHSTK8 , GHSTK9 , GHSTK10 , GHSTK11 ,
      GHSTK12 ,

                GHSTK13 ,

      CH   CHSTK1 ,

      HES   HESSTK1 ,

      HIL   HILSTK1 ,

      MUL   MULSTK1 ,

      WEL   WELSTK1 ,

      PRINT   PRINTA , PRINTB , PRINTC ,

      COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

      HAZMAT   POURING ,

      PAINT   PAINT1 , PAINT2 , PAINT3 , PAINT4 ,

      EXISTLAB WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1 , MHSTK2 , MHSTK3 , MHSTK4 , MHSTK5 , MHSTK6 , KHSTK1 , KHSTK2 , KHSTK3
      ,

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          KHSTK4   , BHSTK1   , BHSTK2   , BHSTK3   , BHSTK4   , BHSTK5   , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,


                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID                              SOURCE IDs

          WELSTK1 ,

  ENGINES  ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
ENG_113 ,

          ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 , ENG_128 ,
ENG_129 ,

          ENG_130 , ENG_131 , ENG_132 , E134_133,

  NEWLABS  NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4,
NEWSTAN5,

          NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  ALL_LABS WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

          KHSTK4   , BHSTK1   , BHSTK2   , BHSTK3   , BHSTK4   , BHSTK5   , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,

          WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_G, ENG_UNT3, NEWSTAN1, NEWSTAN2, NEWSTAN3,
NEWSTAN4,

          NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

  EXISTING WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
,

          KHSTK4   , BHSTK1   , BHSTK2   , BHSTK3   , BHSTK4   , BHSTK5   , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
LSASTK2 ,

          LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
LEWHSTK7,

          LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
TANHSTKB,

          TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
,

          GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
MULSTK1 ,
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                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID                                      SOURCE IDs

          WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
          PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,

          ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,

          ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,


  NEWLAB_A  NEWLAB_A,


  NEWLAB_B  NEWLAB_B,


  NEWLAB_C  NEWLAB_C,


  NEWLAB_D  NEWLAB_D,


  NEWLAB_E  NEWLAB_E,


  NEWLAB_F  NEWLAB_F,


  NEWLAB_G  NEWLAB_G,


  DAVISNEW  NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,


  STAN_NEW  NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8,


  NEWENG    ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENG_UNT1, ENG_UNT2, ENG_UNT3,



                      *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CHRONIC  IN MICROGRAMS/M**3                    **

                                                                                       NETWORK
  GROUP ID                       AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  ALL     1ST HIGHEST VALUE IS      0.13107 AT (  564842.69,  4191950.00,     83.00,     0.00) DC      NA
          2ND HIGHEST VALUE IS      0.12353 AT (  564795.00,  4191930.25,     78.00,     0.00) DC      NA
          3RD HIGHEST VALUE IS      0.11908 AT (  564748.50,  4191916.75,     75.00,     0.00) DC      NA
          4TH HIGHEST VALUE IS      0.11883 AT (  564892.25,  4191959.00,     84.00,     0.00) DC      NA
          5TH HIGHEST VALUE IS      0.11022 AT (  564941.88,  4191967.00,     90.00,     0.00) DC      NA
          6TH HIGHEST VALUE IS      0.09978 AT (  564800.00,  4192000.00,     81.00,     0.00) DC      NA
          7TH HIGHEST VALUE IS      0.09726 AT (  564900.00,  4192000.00,     88.00,     0.00) DC      NA
          8TH HIGHEST VALUE IS      0.09413 AT (  564700.00,  4192000.00,     76.00,     0.00) DC      NA
          9TH HIGHEST VALUE IS      0.09378 AT (  564698.50,  4191908.75,     72.00,     0.00) DC      NA
         10TH HIGHEST VALUE IS      0.09066 AT (  564991.81,  4191975.00,     93.00,     0.00) DC      NA


  WH      1ST HIGHEST VALUE IS      0.00013 AT (  564698.50,  4191908.75,     72.00,     0.00) DC      NA
          2ND HIGHEST VALUE IS      0.00012 AT (  564639.88,  4191852.00,     67.00,     0.00) DC      NA
          3RD HIGHEST VALUE IS      0.00012 AT (  564664.50,  4191903.50,     71.00,     0.00) DC      NA
          4TH HIGHEST VALUE IS      0.00012 AT (  564600.00,  4191900.00,     67.00,     0.00) DC      NA
          5TH HIGHEST VALUE IS      0.00011 AT (  564648.62,  4191891.75,     68.00,     0.00) DC      NA
          6TH HIGHEST VALUE IS      0.00009 AT (  564748.50,  4191916.75,     75.00,     0.00) DC      NA
          7TH HIGHEST VALUE IS      0.00006 AT (  564795.00,  4191930.25,     78.00,     0.00) DC      NA
          8TH HIGHEST VALUE IS      0.00005 AT (  564700.00,  4192000.00,     76.00,     0.00) DC      NA
          9TH HIGHEST VALUE IS      0.00005 AT (  564600.00,  4192000.00,     72.00,     0.00) DC      NA
         10TH HIGHEST VALUE IS      0.00004 AT (  564500.00,  4191900.00,     65.00,     0.00) DC      NA

  NWAF    1ST HIGHEST VALUE IS      0.00031 AT (  565000.00,  4192000.00,     98.00,     0.00) DC      NA
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                2ND HIGHEST VALUE IS      0.00031 AT (  565141.94,  4191999.00,   97.00,     0.00)  DC    NA
                3RD HIGHEST VALUE IS      0.00029 AT (  565241.19,  4192017.75,  102.00,     0.00)  DC    NA
                4TH HIGHEST VALUE IS      0.00029 AT (  565191.50,  4192009.50,   97.00,     0.00)  DC    NA
                5TH HIGHEST VALUE IS      0.00028 AT (  565289.25,  4192025.50,  107.00,     0.00)  DC    NA
                6TH HIGHEST VALUE IS      0.00026 AT (  565090.81,  4191991.50,   96.00,     0.00)  DC    NA
                7TH HIGHEST VALUE IS      0.00026 AT (  565339.88,  4192034.25,  108.00,     0.00)  DC    NA
                8TH HIGHEST VALUE IS      0.00025 AT (  564900.00,  4192100.00,  102.00,     0.00)  DC    NA
                9TH HIGHEST VALUE IS      0.00025 AT (  565100.00,  4192000.00,   96.00,     0.00)  DC    NA
               10TH HIGHEST VALUE IS      0.00024 AT (  565100.00,  4192100.00,  107.00,     0.00)  DC    NA


                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                   ** CONC OF CHRONIC  IN MICROGRAMS/M**3                          **

                                                                                        NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


MH     1ST HIGHEST VALUE IS      0.00109 AT (  564748.50,  4191916.75,   75.00,     0.00)  DC    NA
       2ND HIGHEST VALUE IS      0.00090 AT (  564795.00,  4191930.25,   78.00,     0.00)  DC    NA
       3RD HIGHEST VALUE IS      0.00076 AT (  564698.50,  4191908.75,   72.00,     0.00)  DC    NA
       4TH HIGHEST VALUE IS      0.00075 AT (  564842.69,  4191950.00,   83.00,     0.00)  DC    NA
       5TH HIGHEST VALUE IS      0.00056 AT (  564700.00,  4192000.00,   76.00,     0.00)  DC    NA
       6TH HIGHEST VALUE IS      0.00054 AT (  564664.50,  4191903.50,   71.00,     0.00)  DC    NA
       7TH HIGHEST VALUE IS      0.00045 AT (  564892.25,  4191959.00,   84.00,     0.00)  DC    NA
       8TH HIGHEST VALUE IS      0.00045 AT (  564800.00,  4192000.00,   81.00,     0.00)  DC    NA
       9TH HIGHEST VALUE IS      0.00039 AT (  564600.00,  4192000.00,   72.00,     0.00)  DC    NA
      10TH HIGHEST VALUE IS      0.00038 AT (  564941.88,  4191967.00,   90.00,     0.00)  DC    NA

KH     1ST HIGHEST VALUE IS      0.00925 AT (  564842.69,  4191950.00,   83.00,     0.00)  DC    NA
       2ND HIGHEST VALUE IS      0.00900 AT (  564700.00,  4192000.00,   76.00,     0.00)  DC    NA
       3RD HIGHEST VALUE IS      0.00790 AT (  564800.00,  4192000.00,   81.00,     0.00)  DC    NA
       4TH HIGHEST VALUE IS      0.00747 AT (  564892.25,  4191959.00,   84.00,     0.00)  DC    NA
       5TH HIGHEST VALUE IS      0.00708 AT (  564600.00,  4192000.00,   72.00,     0.00)  DC    NA
       6TH HIGHEST VALUE IS      0.00637 AT (  564991.81,  4191975.00,   93.00,     0.00)  DC    NA
       7TH HIGHEST VALUE IS      0.00613 AT (  564941.88,  4191967.00,   90.00,     0.00)  DC    NA
       8TH HIGHEST VALUE IS      0.00541 AT (  565000.00,  4192000.00,   98.00,     0.00)  DC    NA
       9TH HIGHEST VALUE IS      0.00511 AT (  565042.31,  4191983.00,   93.00,     0.00)  DC    NA
      10TH HIGHEST VALUE IS      0.00504 AT (  564800.00,  4192100.00,   92.00,     0.00)  DC    NA

BH     1ST HIGHEST VALUE IS      0.00120 AT (  564795.00,  4191930.25,   78.00,     0.00)  DC    NA
       2ND HIGHEST VALUE IS      0.00094 AT (  564842.69,  4191950.00,   83.00,     0.00)  DC    NA
       3RD HIGHEST VALUE IS      0.00076 AT (  564600.00,  4192000.00,   72.00,     0.00)  DC    NA
       4TH HIGHEST VALUE IS      0.00072 AT (  564892.25,  4191959.00,   84.00,     0.00)  DC    NA
       5TH HIGHEST VALUE IS      0.00059 AT (  564700.00,  4192000.00,   76.00,     0.00)  DC    NA
       6TH HIGHEST VALUE IS      0.00059 AT (  564941.88,  4191967.00,   90.00,     0.00)  DC    NA
       7TH HIGHEST VALUE IS      0.00055 AT (  564800.00,  4192000.00,   81.00,     0.00)  DC    NA
       8TH HIGHEST VALUE IS      0.00053 AT (  564900.00,  4192000.00,   88.00,     0.00)  DC    NA
       9TH HIGHEST VALUE IS      0.00048 AT (  565000.00,  4192000.00,   98.00,     0.00)  DC    NA
      10TH HIGHEST VALUE IS      0.00046 AT (  564991.81,  4191975.00,   93.00,     0.00)  DC    NA


                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                   ** CONC OF CHRONIC  IN MICROGRAMS/M**3                          **

                                                                                        NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


VLSB   1ST HIGHEST VALUE IS      0.00356 AT (  565226.19,  4191310.50,   81.00,     0.00)  DC    NA
       2ND HIGHEST VALUE IS      0.00352 AT (  564795.00,  4191930.25,   78.00,     0.00)  DC    NA
       3RD HIGHEST VALUE IS      0.00347 AT (  565200.00,  4191300.00,   80.00,     0.00)  DC    NA
       4TH HIGHEST VALUE IS      0.00345 AT (  565176.31,  4191303.25,   79.00,     0.00)  DC    NA
       5TH HIGHEST VALUE IS      0.00343 AT (  565577.06,  4191362.50,   93.00,     0.00)  DC    NA
       6TH HIGHEST VALUE IS      0.00338 AT (  564842.69,  4191950.00,   83.00,     0.00)  DC    NA
       7TH HIGHEST VALUE IS      0.00337 AT (  565276.06,  4191318.25,   82.00,     0.00)  DC    NA
       8TH HIGHEST VALUE IS      0.00324 AT (  565326.25,  4191324.25,   84.00,     0.00)  DC    NA
       9TH HIGHEST VALUE IS      0.00324 AT (  565626.50,  4191370.25,   95.00,     0.00)  DC    NA
      10TH HIGHEST VALUE IS      0.00320 AT (  564748.50,  4191916.75,   75.00,     0.00)  DC    NA

LSA    1ST HIGHEST VALUE IS      0.00297 AT (  565176.31,  4191303.25,   79.00,     0.00)  DC    NA
       2ND HIGHEST VALUE IS      0.00296 AT (  565577.06,  4191362.50,   93.00,     0.00)  DC    NA
       3RD HIGHEST VALUE IS      0.00294 AT (  565376.81,  4191332.25,   87.00,     0.00)  DC    NA
       4TH HIGHEST VALUE IS      0.00294 AT (  565127.75,  4191295.25,   77.00,     0.00)  DC    NA
       5TH HIGHEST VALUE IS      0.00293 AT (  565077.25,  4191285.50,   76.00,     0.00)  DC    NA
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            6TH HIGHEST VALUE IS      0.00288 AT (  565200.00,  4191300.00,     80.00,     0.00) DC      NA
            7TH HIGHEST VALUE IS      0.00284 AT (  565226.19,  4191310.50,     81.00,     0.00) DC      NA
            8TH HIGHEST VALUE IS      0.00280 AT (  565326.25,  4191324.25,     84.00,     0.00) DC      NA
            9TH HIGHEST VALUE IS      0.00278 AT (  565426.81,  4191338.75,     88.00,     0.00) DC      NA
           10TH HIGHEST VALUE IS      0.00277 AT (  565626.50,  4191370.25,     95.00,     0.00) DC      NA

LEW    1ST HIGHEST VALUE IS      0.00025 AT (  565475.12,  4192018.00,    118.00,     0.00) DC      NA
       2ND HIGHEST VALUE IS      0.00022 AT (  565500.00,  4192100.00,    126.00,     0.00) DC      NA
       3RD HIGHEST VALUE IS      0.00021 AT (  565460.56,  4192039.50,    117.00,     0.00) DC      NA
       4TH HIGHEST VALUE IS      0.00020 AT (  565438.25,  4192048.75,    117.00,     0.00) DC      NA
       5TH HIGHEST VALUE IS      0.00019 AT (  566100.00,  4191600.00,    141.00,     0.00) DC      NA
       6TH HIGHEST VALUE IS      0.00016 AT (  565390.25,  4192042.25,    113.00,     0.00) DC      NA
       7TH HIGHEST VALUE IS      0.00016 AT (  565300.00,  4192300.00,    123.00,     0.00) DC      NA
       8TH HIGHEST VALUE IS      0.00015 AT (  565600.00,  4192100.00,    140.00,     0.00) DC      NA
       9TH HIGHEST VALUE IS      0.00015 AT (  566200.00,  4191600.00,    144.00,     0.00) DC      NA
      10TH HIGHEST VALUE IS      0.00015 AT (  565339.88,  4192034.25,    108.00,     0.00) DC      NA


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                   ** CONC OF CHRONIC  IN MICROGRAMS/M**3                      **

                                                                                       NETWORK
GROUP ID                    AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

LAT    1ST HIGHEST VALUE IS      0.00038 AT (  565475.12,  4192018.00,    118.00,     0.00) DC      NA
       2ND HIGHEST VALUE IS      0.00036 AT (  566200.00,  4191600.00,    144.00,     0.00) DC      NA
       3RD HIGHEST VALUE IS      0.00034 AT (  565460.56,  4192039.50,    117.00,     0.00) DC      NA
       4TH HIGHEST VALUE IS      0.00032 AT (  565438.25,  4192048.75,    117.00,     0.00) DC      NA
       5TH HIGHEST VALUE IS      0.00032 AT (  566100.00,  4191600.00,    141.00,     0.00) DC      NA
       6TH HIGHEST VALUE IS      0.00032 AT (  565390.25,  4192042.25,    113.00,     0.00) DC      NA
       7TH HIGHEST VALUE IS      0.00031 AT (  565339.88,  4192034.25,    108.00,     0.00) DC      NA
       8TH HIGHEST VALUE IS      0.00030 AT (  566200.00,  4191500.00,    156.00,     0.00) DC      NA
       9TH HIGHEST VALUE IS      0.00030 AT (  565800.00,  4192000.00,    178.00,     0.00) DC      NA
      10TH HIGHEST VALUE IS      0.00030 AT (  565900.00,  4192000.00,    182.00,     0.00) DC      NA

TAN    1ST HIGHEST VALUE IS      0.00018 AT (  566100.00,  4191600.00,    141.00,     0.00) DC      NA
       2ND HIGHEST VALUE IS      0.00016 AT (  565475.12,  4192018.00,    118.00,     0.00) DC      NA
       3RD HIGHEST VALUE IS      0.00015 AT (  565289.25,  4192025.50,    107.00,     0.00) DC      NA
       4TH HIGHEST VALUE IS      0.00015 AT (  566200.00,  4191600.00,    144.00,     0.00) DC      NA
       5TH HIGHEST VALUE IS      0.00014 AT (  565390.25,  4192042.25,    113.00,     0.00) DC      NA
       6TH HIGHEST VALUE IS      0.00014 AT (  565438.25,  4192048.75,    117.00,     0.00) DC      NA
       7TH HIGHEST VALUE IS      0.00013 AT (  565460.56,  4192039.50,    117.00,     0.00) DC      NA
       8TH HIGHEST VALUE IS      0.00013 AT (  565339.88,  4192034.25,    108.00,     0.00) DC      NA
       9TH HIGHEST VALUE IS      0.00013 AT (  565500.00,  4192100.00,    126.00,     0.00) DC      NA
      10TH HIGHEST VALUE IS      0.00012 AT (  565600.00,  4192100.00,    140.00,     0.00) DC      NA

HH     1ST HIGHEST VALUE IS      0.00080 AT (  566100.00,  4191600.00,    141.00,     0.00) DC      NA
       2ND HIGHEST VALUE IS      0.00060 AT (  566200.00,  4191600.00,    144.00,     0.00) DC      NA
       3RD HIGHEST VALUE IS      0.00055 AT (  566200.00,  4191500.00,    156.00,     0.00) DC      NA
       4TH HIGHEST VALUE IS      0.00053 AT (  565475.12,  4192018.00,    118.00,     0.00) DC      NA
       5TH HIGHEST VALUE IS      0.00053 AT (  565289.25,  4192025.50,    107.00,     0.00) DC      NA
       6TH HIGHEST VALUE IS      0.00053 AT (  565600.00,  4192100.00,    140.00,     0.00) DC      NA
       7TH HIGHEST VALUE IS      0.00052 AT (  565339.88,  4192034.25,    108.00,     0.00) DC      NA
       8TH HIGHEST VALUE IS      0.00051 AT (  566100.00,  4191400.00,    149.00,     0.00) DC      NA
       9TH HIGHEST VALUE IS      0.00050 AT (  565390.25,  4192042.25,    113.00,     0.00) DC      NA
      10TH HIGHEST VALUE IS      0.00048 AT (  565460.56,  4192039.50,    117.00,     0.00) DC      NA


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                   ** CONC OF CHRONIC  IN MICROGRAMS/M**3                      **

                                                                                       NETWORK
GROUP ID                    AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

GH     1ST HIGHEST VALUE IS      0.00012 AT (  566100.00,  4191600.00,    141.00,     0.00) DC      NA
       2ND HIGHEST VALUE IS      0.00010 AT (  565289.25,  4192025.50,    107.00,     0.00) DC      NA
       3RD HIGHEST VALUE IS      0.00010 AT (  565241.19,  4192017.75,    102.00,     0.00) DC      NA
       4TH HIGHEST VALUE IS      0.00010 AT (  565500.00,  4192100.00,    126.00,     0.00) DC      NA
       5TH HIGHEST VALUE IS      0.00009 AT (  565339.88,  4192034.25,    108.00,     0.00) DC      NA
       6TH HIGHEST VALUE IS      0.00009 AT (  566200.00,  4191600.00,    144.00,     0.00) DC      NA
       7TH HIGHEST VALUE IS      0.00009 AT (  565475.12,  4192018.00,    118.00,     0.00) DC      NA
       8TH HIGHEST VALUE IS      0.00009 AT (  565600.00,  4192100.00,    140.00,     0.00) DC      NA
       9TH HIGHEST VALUE IS      0.00009 AT (  565191.50,  4192009.50,     97.00,     0.00) DC      NA
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        10TH HIGHEST VALUE IS      0.00009 AT (  565390.25,  4192042.25,    113.00,     0.00)  DC     NA

CH      1ST HIGHEST VALUE IS       0.00106 AT (  565475.12,  4192018.00,    118.00,     0.00)  DC     NA
        2ND HIGHEST VALUE IS       0.00046 AT (  565500.00,  4192100.00,    126.00,     0.00)  DC     NA
        3RD HIGHEST VALUE IS       0.00044 AT (  565600.00,  4192100.00,    140.00,     0.00)  DC     NA
        4TH HIGHEST VALUE IS       0.00044 AT (  565400.00,  4192100.00,    116.00,     0.00)  DC     NA
        5TH HIGHEST VALUE IS       0.00041 AT (  565300.00,  4192100.00,    107.00,     0.00)  DC     NA
        6TH HIGHEST VALUE IS       0.00029 AT (  565800.00,  4192000.00,    178.00,     0.00)  DC     NA
        7TH HIGHEST VALUE IS       0.00029 AT (  565700.00,  4192100.00,    165.00,     0.00)  DC     NA
        8TH HIGHEST VALUE IS       0.00024 AT (  565400.00,  4192200.00,    118.00,     0.00)  DC     NA
        9TH HIGHEST VALUE IS       0.00023 AT (  565500.00,  4192200.00,    136.00,     0.00)  DC     NA
        10TH HIGHEST VALUE IS      0.00022 AT (  565300.00,  4192200.00,    112.00,     0.00)  DC     NA

HES     1ST HIGHEST VALUE IS       0.00328 AT (  565141.94,  4191999.00,     97.00,     0.00)  DC     NA
        2ND HIGHEST VALUE IS       0.00326 AT (  565191.50,  4192009.50,     97.00,     0.00)  DC     NA
        3RD HIGHEST VALUE IS       0.00291 AT (  565241.19,  4192017.75,    102.00,     0.00)  DC     NA
        4TH HIGHEST VALUE IS       0.00218 AT (  565289.25,  4192025.50,    107.00,     0.00)  DC     NA
        5TH HIGHEST VALUE IS       0.00208 AT (  565100.00,  4192000.00,     96.00,     0.00)  DC     NA
        6TH HIGHEST VALUE IS       0.00178 AT (  565090.81,  4191991.50,     96.00,     0.00)  DC     NA
        7TH HIGHEST VALUE IS       0.00167 AT (  565100.00,  4192100.00,    107.00,     0.00)  DC     NA
        8TH HIGHEST VALUE IS       0.00165 AT (  565339.88,  4192034.25,    108.00,     0.00)  DC     NA
        9TH HIGHEST VALUE IS       0.00153 AT (  565475.12,  4192018.00,    118.00,     0.00)  DC     NA
        10TH HIGHEST VALUE IS      0.00141 AT (  565460.56,  4192039.50,    117.00,     0.00)  DC     NA


                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


              ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                 NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

HIL     1ST HIGHEST VALUE IS       0.06229 AT (  564795.00,  4191930.25,     78.00,     0.00)  DC     NA
        2ND HIGHEST VALUE IS       0.05508 AT (  564748.50,  4191916.75,     75.00,     0.00)  DC     NA
        3RD HIGHEST VALUE IS       0.05494 AT (  564842.69,  4191950.00,     83.00,     0.00)  DC     NA
        4TH HIGHEST VALUE IS       0.04821 AT (  564941.88,  4191967.00,     90.00,     0.00)  DC     NA
        5TH HIGHEST VALUE IS       0.04736 AT (  564892.25,  4191959.00,     84.00,     0.00)  DC     NA
        6TH HIGHEST VALUE IS       0.03913 AT (  564800.00,  4192000.00,     81.00,     0.00)  DC     NA
        7TH HIGHEST VALUE IS       0.03674 AT (  564900.00,  4192000.00,     88.00,     0.00)  DC     NA
        8TH HIGHEST VALUE IS       0.03629 AT (  564991.81,  4191975.00,     93.00,     0.00)  DC     NA
        9TH HIGHEST VALUE IS       0.03503 AT (  564700.00,  4192000.00,     76.00,     0.00)  DC     NA
        10TH HIGHEST VALUE IS      0.03467 AT (  565000.00,  4192000.00,     98.00,     0.00)  DC     NA

MUL     1ST HIGHEST VALUE IS       0.00000 AT (  564664.50,  4191903.50,     71.00,     0.00)  DC     NA
        2ND HIGHEST VALUE IS       0.00000 AT (  564795.00,  4191930.25,     78.00,     0.00)  DC     NA
        3RD HIGHEST VALUE IS       0.00000 AT (  564648.62,  4191891.75,     68.00,     0.00)  DC     NA
        4TH HIGHEST VALUE IS       0.00000 AT (  564698.50,  4191908.75,     72.00,     0.00)  DC     NA
        5TH HIGHEST VALUE IS       0.00000 AT (  564842.69,  4191950.00,     83.00,     0.00)  DC     NA
        6TH HIGHEST VALUE IS       0.00000 AT (  564639.88,  4191852.00,     67.00,     0.00)  DC     NA
        7TH HIGHEST VALUE IS       0.00000 AT (  564748.50,  4191916.75,     75.00,     0.00)  DC     NA
        8TH HIGHEST VALUE IS       0.00000 AT (  564800.00,  4192000.00,     81.00,     0.00)  DC     NA
        9TH HIGHEST VALUE IS       0.00000 AT (  564645.94,  4191801.25,     66.00,     0.00)  DC     NA
        10TH HIGHEST VALUE IS      0.00000 AT (  564600.00,  4191900.00,     67.00,     0.00)  DC     NA

WEL     1ST HIGHEST VALUE IS       0.00014 AT (  564795.00,  4191930.25,     78.00,     0.00)  DC     NA
        2ND HIGHEST VALUE IS       0.00010 AT (  564892.25,  4191959.00,     84.00,     0.00)  DC     NA
        3RD HIGHEST VALUE IS       0.00009 AT (  564941.88,  4191967.00,     90.00,     0.00)  DC     NA
        4TH HIGHEST VALUE IS       0.00009 AT (  564748.50,  4191916.75,     75.00,     0.00)  DC     NA
        5TH HIGHEST VALUE IS       0.00009 AT (  564842.69,  4191950.00,     83.00,     0.00)  DC     NA
        6TH HIGHEST VALUE IS       0.00008 AT (  564900.00,  4192000.00,     88.00,     0.00)  DC     NA
        7TH HIGHEST VALUE IS       0.00007 AT (  564991.81,  4191975.00,     93.00,     0.00)  DC     NA
        8TH HIGHEST VALUE IS       0.00007 AT (  564800.00,  4192000.00,     81.00,     0.00)  DC     NA
        9TH HIGHEST VALUE IS       0.00007 AT (  564700.00,  4192000.00,     76.00,     0.00)  DC     NA
        10TH HIGHEST VALUE IS      0.00007 AT (  564800.00,  4192100.00,     92.00,     0.00)  DC     NA


                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


              ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                 NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PRINT   1ST HIGHEST VALUE IS       0.01033 AT (  564673.81,  4191519.00,     63.00,     0.00)  DC     NA
        2ND HIGHEST VALUE IS       0.00600 AT (  564675.81,  4191504.00,     62.00,     0.00)  DC     NA
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                  3RD HIGHEST VALUE IS      0.00268 AT (  564550.38,  4191600.50,    60.00,    0.00) DC    NA
                  4TH HIGHEST VALUE IS      0.00251 AT (  564678.75,  4191454.25,    62.00,    0.00) DC    NA
                  5TH HIGHEST VALUE IS      0.00247 AT (  564557.88,  4191553.00,    60.00,    0.00) DC    NA
                  6TH HIGHEST VALUE IS      0.00223 AT (  564603.69,  4191609.25,    62.00,    0.00) DC    NA
                  7TH HIGHEST VALUE IS      0.00178 AT (  564665.12,  4191621.25,    65.00,    0.00) DC    NA
                  8TH HIGHEST VALUE IS      0.00154 AT (  564500.00,  4191600.00,    59.00,    0.00) DC    NA
                  9TH HIGHEST VALUE IS      0.00141 AT (  564678.50,  4191403.75,    61.00,    0.00) DC    NA
                 10TH HIGHEST VALUE IS      0.00138 AT (  564617.12,  4191507.50,    60.00,    0.00) DC    NA

COMBUST   1ST HIGHEST VALUE IS      0.01898 AT (  566200.00,  4191300.00,   158.00,    0.00) DC    NA
                  2ND HIGHEST VALUE IS      0.01846 AT (  566100.00,  4191400.00,   149.00,    0.00) DC    NA
                  3RD HIGHEST VALUE IS      0.01837 AT (  566200.00,  4191400.00,   174.00,    0.00) DC    NA
                  4TH HIGHEST VALUE IS      0.01760 AT (  566300.00,  4191300.00,   176.00,    0.00) DC    NA
                  5TH HIGHEST VALUE IS      0.01715 AT (  566100.00,  4191300.00,   140.00,    0.00) DC    NA
                  6TH HIGHEST VALUE IS      0.01694 AT (  566400.00,  4191200.00,   166.00,    0.00) DC    NA
                  7TH HIGHEST VALUE IS      0.01683 AT (  566400.00,  4191100.00,   174.00,    0.00) DC    NA
                  8TH HIGHEST VALUE IS      0.01674 AT (  566300.00,  4191400.00,   204.00,    0.00) DC    NA
                  9TH HIGHEST VALUE IS      0.01652 AT (  566400.00,  4191000.00,   162.00,    0.00) DC    NA
                 10TH HIGHEST VALUE IS      0.01650 AT (  566200.00,  4191200.00,   142.00,    0.00) DC    NA

HAZMAT    1ST HIGHEST VALUE IS      0.00003 AT (  564976.62,  4191271.75,    73.00,    0.00) DC    NA
                  2ND HIGHEST VALUE IS      0.00002 AT (  565026.56,  4191279.00,    74.00,    0.00) DC    NA
                  3RD HIGHEST VALUE IS      0.00002 AT (  564927.50,  4191263.50,    71.00,    0.00) DC    NA
                  4TH HIGHEST VALUE IS      0.00002 AT (  564665.12,  4191621.25,    65.00,    0.00) DC    NA
                  5TH HIGHEST VALUE IS      0.00002 AT (  565077.25,  4191285.50,    76.00,    0.00) DC    NA
                  6TH HIGHEST VALUE IS      0.00002 AT (  565176.31,  4191303.25,    79.00,    0.00) DC    NA
                  7TH HIGHEST VALUE IS      0.00002 AT (  565127.75,  4191295.25,    77.00,    0.00) DC    NA
                  8TH HIGHEST VALUE IS      0.00002 AT (  564663.00,  4191652.50,    65.00,    0.00) DC    NA
                  9TH HIGHEST VALUE IS      0.00002 AT (  565200.00,  4191300.00,    80.00,    0.00) DC    NA
                 10TH HIGHEST VALUE IS      0.00002 AT (  565376.81,  4191332.25,    87.00,    0.00) DC    NA


                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PAINT     1ST HIGHEST VALUE IS      0.00008 AT (  565191.50,  4192009.50,    97.00,    0.00) DC    NA
                  2ND HIGHEST VALUE IS      0.00008 AT (  565141.94,  4191999.00,    97.00,    0.00) DC    NA
                  3RD HIGHEST VALUE IS      0.00007 AT (  565675.94,  4191381.00,    98.00,    0.00) DC    NA
                  4TH HIGHEST VALUE IS      0.00007 AT (  565626.50,  4191370.25,    95.00,    0.00) DC    NA
                  5TH HIGHEST VALUE IS      0.00007 AT (  565026.56,  4191279.00,    74.00,    0.00) DC    NA
                  6TH HIGHEST VALUE IS      0.00007 AT (  565241.19,  4192017.75,   102.00,    0.00) DC    NA
                  7TH HIGHEST VALUE IS      0.00007 AT (  565100.00,  4192000.00,    96.00,    0.00) DC    NA
                  8TH HIGHEST VALUE IS      0.00007 AT (  564976.62,  4191271.75,    73.00,    0.00) DC    NA
                  9TH HIGHEST VALUE IS      0.00006 AT (  565090.81,  4191991.50,    96.00,    0.00) DC    NA
                 10TH HIGHEST VALUE IS      0.00006 AT (  565726.62,  4191386.25,   100.00,    0.00) DC    NA

EXISTLAB 1ST HIGHEST VALUE IS      0.07220 AT (  564842.69,  4191950.00,    83.00,    0.00) DC    NA
                  2ND HIGHEST VALUE IS      0.07170 AT (  564795.00,  4191930.25,    78.00,    0.00) DC    NA
                  3RD HIGHEST VALUE IS      0.06225 AT (  564748.50,  4191916.75,    75.00,    0.00) DC    NA
                  4TH HIGHEST VALUE IS      0.06208 AT (  564892.25,  4191959.00,    84.00,    0.00) DC    NA
                  5TH HIGHEST VALUE IS      0.06207 AT (  564941.88,  4191967.00,    90.00,    0.00) DC    NA
                  6TH HIGHEST VALUE IS      0.05336 AT (  564800.00,  4192000.00,    81.00,    0.00) DC    NA
                  7TH HIGHEST VALUE IS      0.05071 AT (  564991.81,  4191975.00,    93.00,    0.00) DC    NA
                  8TH HIGHEST VALUE IS      0.05021 AT (  564700.00,  4192000.00,    76.00,    0.00) DC    NA
                  9TH HIGHEST VALUE IS      0.04823 AT (  565000.00,  4192000.00,    98.00,    0.00) DC    NA
                 10TH HIGHEST VALUE IS      0.04800 AT (  564900.00,  4192000.00,    88.00,    0.00) DC    NA

ENGINES   1ST HIGHEST VALUE IS      0.00251 AT (  564700.00,  4192000.00,    76.00,    0.00) DC    NA
                  2ND HIGHEST VALUE IS      0.00231 AT (  564892.25,  4191959.00,    84.00,    0.00) DC    NA
                  3RD HIGHEST VALUE IS      0.00213 AT (  564941.88,  4191967.00,    90.00,    0.00) DC    NA
                  4TH HIGHEST VALUE IS      0.00206 AT (  565800.00,  4191200.00,   100.00,    0.00) DC    NA
                  5TH HIGHEST VALUE IS      0.00197 AT (  564991.81,  4191975.00,    93.00,    0.00) DC    NA
                  6TH HIGHEST VALUE IS      0.00195 AT (  564800.00,  4192000.00,    81.00,    0.00) DC    NA
                  7TH HIGHEST VALUE IS      0.00191 AT (  565000.00,  4192000.00,    98.00,    0.00) DC    NA
                  8TH HIGHEST VALUE IS      0.00191 AT (  565800.00,  4191000.00,    95.00,    0.00) DC    NA
                  9TH HIGHEST VALUE IS      0.00188 AT (  565700.00,  4191200.00,    93.00,    0.00) DC    NA
                 10TH HIGHEST VALUE IS      0.00180 AT (  564698.50,  4191908.75,    72.00,    0.00) DC    NA


                          *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **
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                                                                      NETWORK
GROUP ID                    AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLABS  1ST HIGHEST VALUE IS     0.06457 AT (  564649.94,  4191752.00,    66.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.05622 AT (  564842.69,  4191950.00,    83.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.05431 AT (  564748.50,  4191916.75,    75.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.05331 AT (  564892.25,  4191959.00,    84.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.05118 AT (  564664.50,  4191903.50,    71.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.05110 AT (  564645.94,  4191801.25,    66.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.05070 AT (  564639.88,  4191852.00,    67.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.05040 AT (  564648.62,  4191891.75,    68.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.04966 AT (  564698.50,  4191908.75,    72.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.04950 AT (  564795.00,  4191930.25,    78.00,    0.00)  DC      NA


ALL_LABS 1ST HIGHEST VALUE IS     0.12593 AT (  564842.69,  4191950.00,    83.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.11954 AT (  564795.00,  4191930.25,    78.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.11529 AT (  564748.50,  4191916.75,    75.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.11280 AT (  564892.25,  4191959.00,    84.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.10437 AT (  564941.88,  4191967.00,    90.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.09481 AT (  564800.00,  4192000.00,    81.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.09201 AT (  564900.00,  4192000.00,    88.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.08998 AT (  564698.50,  4191908.75,    72.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.08943 AT (  564700.00,  4192000.00,    76.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.08633 AT (  564664.50,  4191903.50,    71.00,    0.00)  DC      NA


EXISTING 1ST HIGHEST VALUE IS     0.07475 AT (  564842.69,  4191950.00,    83.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.07392 AT (  564795.00,  4191930.25,    78.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.06556 AT (  564941.88,  4191967.00,    90.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.06541 AT (  564892.25,  4191959.00,    84.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.06465 AT (  564748.50,  4191916.75,    75.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.05617 AT (  564800.00,  4192000.00,    81.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.05418 AT (  564991.81,  4191975.00,    93.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.05355 AT (  564700.00,  4192000.00,    76.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.05205 AT (  565000.00,  4192000.00,    98.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.05100 AT (  564900.00,  4192000.00,    88.00,    0.00)  DC      NA



                    *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CHRONIC  IN MICROGRAMS/M**3                    **

                                                                      NETWORK
GROUP ID                    AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_A 1ST HIGHEST VALUE IS     0.06132 AT (  564649.94,  4191752.00,    66.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.04777 AT (  564645.94,  4191801.25,    66.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.04696 AT (  564639.88,  4191852.00,    67.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.04509 AT (  564648.62,  4191891.75,    68.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.04400 AT (  564664.50,  4191903.50,    71.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.04254 AT (  564748.50,  4191916.75,    75.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.04106 AT (  564600.00,  4191800.00,    65.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.04093 AT (  564698.50,  4191908.75,    72.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.03776 AT (  564600.00,  4191900.00,    67.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.03511 AT (  564842.69,  4191950.00,    83.00,    0.00)  DC      NA


NEWLAB_B 1ST HIGHEST VALUE IS     0.01705 AT (  564892.25,  4191959.00,    84.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.01605 AT (  564941.88,  4191967.00,    90.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.01417 AT (  564900.00,  4192000.00,    88.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.01274 AT (  564842.69,  4191950.00,    83.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.01103 AT (  564991.81,  4191975.00,    93.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.01017 AT (  564800.00,  4192100.00,    92.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00967 AT (  564800.00,  4192000.00,    81.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00918 AT (  564795.00,  4191930.25,    78.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00767 AT (  565042.31,  4191983.00,    93.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00756 AT (  565000.00,  4192000.00,    98.00,    0.00)  DC      NA


NEWLAB_C 1ST HIGHEST VALUE IS     0.00647 AT (  565141.94,  4191999.00,    97.00,    0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.00611 AT (  565191.50,  4192009.50,    97.00,    0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.00547 AT (  565241.19,  4192017.75,   102.00,    0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.00515 AT (  565100.00,  4192100.00,   107.00,    0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.00478 AT (  565000.00,  4192100.00,   111.00,    0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.00462 AT (  565100.00,  4192000.00,    96.00,    0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00461 AT (  565289.25,  4192025.50,   107.00,    0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00448 AT (  565090.81,  4191991.50,    96.00,    0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00415 AT (  565000.00,  4192000.00,    98.00,    0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00399 AT (  565339.88,  4192034.25,   108.00,    0.00)  DC      NA
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                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CHRONIC  IN MICROGRAMS/M**3                         **

                                                                             NETWORK
GROUP ID                    AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_D 1ST HIGHEST VALUE IS     0.00312 AT (  565475.12,  4192018.00,    118.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.00282 AT (  565390.25,  4192042.25,    113.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.00276 AT (  565460.56,  4192039.50,    117.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.00261 AT (  565438.25,  4192048.75,    117.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.00235 AT (  565339.88,  4192034.25,    108.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.00200 AT (  565400.00,  4192100.00,    116.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00196 AT (  565289.25,  4192025.50,    107.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00184 AT (  565500.00,  4192100.00,    126.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00151 AT (  565300.00,  4192100.00,    107.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00148 AT (  565241.19,  4192017.75,    102.00,     0.00)  DC      NA


NEWLAB_E 1ST HIGHEST VALUE IS     0.01104 AT (  565200.00,  4191300.00,     80.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.01022 AT (  565326.25,  4191324.25,     84.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.01009 AT (  565226.19,  4191310.50,     81.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.00972 AT (  565176.31,  4191303.25,     79.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.00905 AT (  565276.06,  4191318.25,     82.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.00897 AT (  565376.81,  4191332.25,     87.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00818 AT (  565300.00,  4191300.00,     82.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00816 AT (  565400.00,  4191300.00,     84.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00798 AT (  565127.75,  4191295.25,     77.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00781 AT (  565426.81,  4191338.75,     88.00,     0.00)  DC      NA


NEWLAB_F 1ST HIGHEST VALUE IS     0.00909 AT (  565577.06,  4191362.50,     93.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.00784 AT (  565626.50,  4191370.25,     95.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.00740 AT (  565675.94,  4191381.00,     98.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.00654 AT (  565726.62,  4191386.25,    100.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.00582 AT (  565527.69,  4191354.50,     91.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.00540 AT (  565776.88,  4191394.00,    103.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00518 AT (  565600.00,  4191300.00,     91.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00511 AT (  565426.81,  4191338.75,     88.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00508 AT (  565700.00,  4191300.00,     94.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00506 AT (  565476.12,  4191347.00,     90.00,     0.00)  DC      NA




                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                      ** CONC OF CHRONIC  IN MICROGRAMS/M**3                         **

                                                                             NETWORK
GROUP ID                    AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_G 1ST HIGHEST VALUE IS     0.00158 AT (  565856.12,  4191409.75,    110.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.00149 AT (  565726.62,  4191386.25,    100.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.00139 AT (  565776.88,  4191394.00,    103.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.00120 AT (  565827.00,  4191402.25,    108.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.00114 AT (  565675.94,  4191381.00,     98.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.00105 AT (  566000.00,  4191300.00,    118.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00104 AT (  566100.00,  4191400.00,    149.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00087 AT (  566100.00,  4191600.00,    141.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00082 AT (  565800.00,  4191300.00,    103.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00080 AT (  566000.00,  4191200.00,    113.00,     0.00)  DC      NA


DAVISNEW 1ST HIGHEST VALUE IS     0.01000 AT (  565600.00,  4192100.00,    140.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.00791 AT (  565700.00,  4192100.00,    165.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.00692 AT (  565800.00,  4192000.00,    178.00,     0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.00631 AT (  565600.00,  4192200.00,    158.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.00549 AT (  565500.00,  4192100.00,    126.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.00536 AT (  565900.00,  4192000.00,    182.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00519 AT (  565800.00,  4192100.00,    198.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00495 AT (  565500.00,  4192200.00,    136.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00461 AT (  565500.00,  4192300.00,    149.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00449 AT (  565400.00,  4192300.00,    131.00,     0.00)  DC      NA


STAN_NEW 1ST HIGHEST VALUE IS     0.02023 AT (  565800.00,  4192000.00,    178.00,     0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.01606 AT (  565700.00,  4192100.00,    165.00,     0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.01497 AT (  565900.00,  4192000.00,    182.00,     0.00)  DC      NA
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         4TH HIGHEST VALUE IS       0.01483 AT (  565600.00,  4192100.00,     140.00,     0.00)  DC      NA
         5TH HIGHEST VALUE IS       0.01371 AT (  565600.00,  4192200.00,     158.00,     0.00)  DC      NA
         6TH HIGHEST VALUE IS       0.01022 AT (  566000.00,  4192000.00,     224.00,     0.00)  DC      NA
         7TH HIGHEST VALUE IS       0.01022 AT (  565600.00,  4192300.00,     168.00,     0.00)  DC      NA
         8TH HIGHEST VALUE IS       0.01013 AT (  566100.00,  4191900.00,     236.00,     0.00)  DC      NA
         9TH HIGHEST VALUE IS       0.00880 AT (  565800.00,  4192100.00,     198.00,     0.00)  DC      NA
        10TH HIGHEST VALUE IS       0.00873 AT (  566300.00,  4191600.00,     155.00,     0.00)  DC      NA



                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWENG    1ST HIGHEST VALUE IS       0.00039 AT (  565475.12,  4192018.00,     118.00,     0.00)  DC      NA
          2ND HIGHEST VALUE IS       0.00034 AT (  565460.56,  4192039.50,     117.00,     0.00)  DC      NA
          3RD HIGHEST VALUE IS       0.00033 AT (  565438.25,  4192048.75,     117.00,     0.00)  DC      NA
          4TH HIGHEST VALUE IS       0.00026 AT (  565300.00,  4192100.00,     107.00,     0.00)  DC      NA
          5TH HIGHEST VALUE IS       0.00025 AT (  565141.94,  4191999.00,      97.00,     0.00)  DC      NA
          6TH HIGHEST VALUE IS       0.00024 AT (  565241.19,  4192017.75,     102.00,     0.00)  DC      NA
          7TH HIGHEST VALUE IS       0.00022 AT (  565400.00,  4192100.00,     116.00,     0.00)  DC      NA
          8TH HIGHEST VALUE IS       0.00020 AT (  565100.00,  4192000.00,      96.00,     0.00)  DC      NA
          9TH HIGHEST VALUE IS       0.00020 AT (  565090.81,  4191991.50,      96.00,     0.00)  DC      NA
         10TH HIGHEST VALUE IS       0.00020 AT (  565191.50,  4192009.50,      97.00,     0.00)  DC      NA
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*** ISCST3 - VERSION 02035 ***
*** UC Berkeley - 12/2003; vjh Sensitive Receptors Chronic            ***
*** Model Executed on 02/06/04 at 11:24:40 ***
 Input File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Chron-Sensitive.DTA

Output File - D:\Beest\UCBerk\10-03\Final\LRDP\LRDP-Chron-Sensitive.LST

   Met File - D:\Beest\UCBerk\10-03\met2\lbl-97a.asc

      Number of sources -        142
Number of source groups -         37
     Number of receptors -       259



                              *** POINT SOURCE DATA ***


              NUMBER EMISSION RATE                BASE    STACK  STACK   STACK     STACK    BUILDING EMISSION RATE
    SOURCE    PART.  (GRAMS/SEC)   X        Y      ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
      ID      CATS.             (METERS) (METERS) (METERS)(METERS)(DEG.K) (M/SEC)  (METERS)                 BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  WHSTK1_8     0   0.21000E-05  564704.4 4191782.8  66.8   31.70  293.15    7.12     0.19     YES
  NWAF9        0   0.75100E-04  564718.8 4191791.2  66.8   29.57  293.15   16.48     0.74     YES
  WHSTK10      0   0.21000E-05  564724.4 4191826.0  66.8    8.60  293.15    7.12     0.34     YES
  MHSTK1       0   0.37600E-05  564794.4 4191795.8  74.8    7.61  293.15   17.25     0.34     YES
  MHSTK2       0   0.37600E-05  564798.6 4191843.0  74.8   10.89  293.15   17.25     0.29     YES
  MHSTK3       0   0.37600E-05  564794.1 4191843.0  74.8   10.89  293.15   17.25     0.48     YES
  MHSTK4       0   0.37600E-05  564800.9 4191787.2  74.8   15.61  293.15   17.25     0.33     YES
  MHSTK6       0   0.37600E-05  564801.3 4191808.2  74.8   10.94  293.15   17.25     0.34     YES
  KHSTK1       0   0.11500E-03  564761.1 4191879.8  72.7   18.45  293.15    1.28     2.76     YES
  KHSTK2       0   0.11500E-03  564759.4 4191891.8  72.7   18.45  293.15    1.28     2.76     YES
  KHSTK3       0   0.11500E-03  564732.4 4191877.5  72.7   18.45  293.15    1.28     2.76     YES
  KHSTK4       0   0.11500E-03  564731.4 4191889.0  72.7   18.45  293.15    1.28     2.76     YES
  BHSTK1       0   0.11600E-04  564678.9 4191889.0  67.4   27.85  293.15    2.78     1.26     YES
  BHSTK2       0   0.11600E-04  564675.0 4191896.8  67.4   29.68  293.15    2.78     1.26     YES
  BHSTK3       0   0.11600E-04  564704.5 4191898.0  67.4   29.68  293.15    2.78     1.26     YES
  BHSTK4       0   0.11600E-04  564707.4 4191887.8  67.4   33.34  293.15    2.78     0.37     YES
  BHSTK5       0   0.11600E-04  564691.6 4191888.0  67.4   33.34  293.15    2.78     0.37     YES
  VLSBSTK1     0   0.12100E-03  564933.6 4191633.2  64.4   27.04  293.15    3.97     1.22     YES
  VLSBSTK2     0   0.12100E-03  564954.0 4191566.5  64.4   27.04  293.15    3.97     1.22     YES
  VLSBSTK3     0   0.12100E-03  565051.3 4191594.8  64.4   27.04  293.15    3.97     1.22     YES
  VLSBSTK4     0   0.12100E-03  565030.6 4191662.2  64.4   27.04  293.15    3.97     1.22     YES
  LSASTK1      0   0.70000E-04  564892.2 4191637.2  64.4   28.31  293.15    5.18     1.22     YES
  LSASTK2      0   0.70000E-04  564875.9 4191632.8  64.4   28.31  293.15    5.18     1.22     YES
  LSASTK3      0   0.70000E-04  564907.6 4191580.5  64.4   28.31  293.15    5.18     1.22     YES
  LSASTK4      0   0.70000E-04  564897.1 4191578.0  64.4   28.31  293.15    5.18     1.22     YES
  LSASTK5      0   0.70000E-04  564908.6 4191576.2  64.4   28.31  293.15    5.18     1.22     YES
  LSASTK6      0   0.70000E-04  564899.1 4191573.5  64.4   28.31  293.15    5.18     1.22     YES
  LSASTK7      0   0.70000E-04  564900.8 4191572.2  64.4   28.31  293.15    5.18     0.30     YES
  LEWHSTK1     0   0.21600E-05  565605.8 4191772.0 106.7   12.80  293.15    3.11     0.36     YES
  LEWHSTK2     0   0.21600E-05  565591.5 4191786.0 106.7   12.80  293.15    3.11     0.36     YES
  LEWHSTK3     0   0.21600E-05  565585.9 4191792.2 106.7   12.80  293.15    3.11     0.36     YES
  LEWHSTK4     0   0.21600E-05  565583.1 4191800.0 106.7   12.80  293.15    3.11     0.36     YES
  LEWHSTK5     0   0.21600E-05  565598.1 4191787.8 106.7   12.80  293.15    3.11     0.36     YES
  LEWHSTK6     0   0.21600E-05  565619.4 4191775.8 106.7   12.80  293.15    3.11     0.36     YES
  LEWHSTK7     0   0.21600E-05  565608.8 4191787.2 106.7   12.80  293.15    3.11     0.36     YES
  LEWHSTK8     0   0.21600E-05  565597.6 4191800.5 106.7   12.80  293.15    3.11     0.30     YES
  LEWHSTK9     0   0.21600E-05  565593.3 4191808.2 106.7   12.80  293.15    3.11     0.36     YES
  LATHSTK1     0   0.92400E-05  565555.1 4191799.2 104.6   42.37  293.15    6.28     0.34     YES
  LATHSTK2     0   0.92400E-05  565561.1 4191812.0 104.6   36.88  293.15    6.28     0.70     YES
  LATHSTK3     0   0.92400E-05  565531.6 4191800.2 104.6   36.88  293.15    6.28     0.48     YES


                              *** POINT SOURCE DATA ***


              NUMBER EMISSION RATE                BASE    STACK  STACK   STACK     STACK    BUILDING EMISSION RATE
    SOURCE    PART.  (GRAMS/SEC)   X        Y      ELEV.  HEIGHT  TEMP.  EXIT VEL. DIAMETER  EXISTS   SCALAR VARY
      ID      CATS.             (METERS) (METERS) (METERS)(METERS)(DEG.K) (M/SEC)  (METERS)                 BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  LATHSTK4     0   0.92400E-05  565515.1 4191799.5 104.6   37.19  293.15    6.28     0.96     YES
  LATHSTK5     0   0.92400E-05  565539.7 4191794.2 104.6   42.37  293.15    6.28     0.70     YES
  LATHSTK6     0   0.92400E-05  565527.3 4191776.0 104.6   38.40  293.15    6.28     0.74     YES
  LATHSTK7     0   0.92400E-05  565544.9 4191781.5 104.6   38.40  293.15    6.28     0.31     YES
  LATHSTK8     0   0.92400E-05  565562.3 4191787.0 104.6   38.40  293.15    6.28     0.70     YES
  TANHSTKA     0   0.79700E-05  565492.1 4191632.8 100.6   39.32  293.15    2.94     1.69     YES
  TANHSTKB     0   0.79700E-05  565496.8 4191794.0 100.6   39.32  293.15    2.94     1.69     YES
  TANHSTKC     0   0.79700E-05  565494.1 4191787.2 100.6   39.32  293.15    2.94     1.69     YES
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TANHSTKD     0   0.79700E-05  565499.1 4191788.2  100.6   39.32  293.15     2.94      1.69      YES
HHSTKA       0   0.19400E-04  565540.8 4191749.5  103.6   20.12  293.15     4.15      1.52      YES
HHSTKB       0   0.19400E-04  565565.6 4191756.8  103.6   20.12  293.15     4.15      1.52      YES
HHSTKC       0   0.19400E-04  565576.8 4191717.8  103.6   20.12  293.15     4.15      1.52      YES
HHSTKD       0   0.19400E-04  565553.2 4191710.5  103.6   20.12  293.15     4.15      1.52      YES
HHSTKE       0   0.19400E-04  565543.4 4191746.5  103.6   20.12  293.15     4.15      0.81      YES
GHSTK1       0   0.12100E-05  565507.1 4191756.0  103.6   16.06  293.15     5.92      0.30      YES
GHSTK2       0   0.12100E-05  565510.6 4191744.8  103.6   16.06  293.15     5.92      0.25      YES
GHSTK3       0   0.12100E-05  565512.4 4191739.0  103.6   16.37  293.15     5.92      0.30      YES
GHSTK4       0   0.12100E-05  565514.7 4191737.8  103.6   15.91  293.15     5.92      0.31      YES
GHSTK5       0   0.12100E-05  565514.9 4191732.2  103.6   16.06  293.15     5.92      0.30      YES
GHSTK6       0   0.12100E-05  565500.2 4191755.2  103.6   16.12  293.15     5.92      0.30      YES
GHSTK7       0   0.12100E-05  565501.1 4191753.0  103.6   16.37  293.15     5.92      0.84      YES
GHSTK8       0   0.12100E-05  565503.7 4191744.2  103.6   16.00  293.15     5.92      0.30      YES
GHSTK9       0   0.12100E-05  565505.2 4191740.2  103.6   16.37  293.15     5.92      0.26      YES
GHSTK10      0   0.12100E-05  565506.9 4191735.2  103.6   16.06  293.15     5.92      0.30      YES
GHSTK11      0   0.12100E-05  565509.7 4191728.2  103.6   16.22  293.15     5.92      0.30      YES
GHSTK12      0   0.12100E-05  565509.0 4191725.5  103.6   16.06  293.15     5.92      0.30      YES
GHSTK13      0   0.12100E-05  565516.9 4191725.8  103.6   15.91  293.15     5.92      0.40      YES
CHSTK1       0   0.30600E-04  565393.9 4192008.8  110.3   26.85  293.15     2.00      1.00      YES
HESSTK1      0   0.98800E-04  565234.6 4191926.2   98.2   15.39  293.15     2.00      1.00      YES
HILSTK1      0   0.28000E-02  564874.6 4191815.0   80.4   14.96  293.15     2.00      1.00      YES
MULSTK1      0   0.12000E-06  564779.7 4191737.8   74.4   17.24  293.15     2.00      1.00      YES
WELSTK1      0   0.39400E-05  564933.7 4191795.2   81.7    5.89  293.15     2.00      1.00      YES
PRINTA       0   0.12300E-04  564584.7 4191553.2   60.0    8.91  293.15     2.70      0.84      YES
PRINTB       0   0.12300E-04  564614.4 4191520.8   60.0    8.91  293.15     2.70      0.84      YES
PRINTC       0   0.12300E-04  564643.1 4191525.5   60.0    8.91  293.15     2.70      0.60      YES
COGEN        0   0.17900E-01  564876.0 4191492.0   71.9   12.77  430.37    10.45      2.28      YES
BOILER#2     0   0.11800E-03  564863.6 4191499.5   71.9    8.80  522.82     7.97      1.52      YES
BOILER#3     0   0.44700E-03  564881.9 4191505.8   71.9    8.80  554.11    10.53      1.52      YES
BOILER#4     0   0.54000E-03  564885.8 4191495.8   71.9    8.80  566.65    12.63      1.52      YES
POURING      0   0.16100E-05  564847.8 4191467.0   70.1   14.94  293.15     4.62      0.56      YES
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                                *** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ENG_62	0	0.31494E-05	565567.6	4191086.5	85.1	4.57	800.37	146.01	0.13	NO	
ENG_63	0	0.15747E-05	564668.2	4191897.5	70.2	4.57	799.85	152.00	0.13	YES	
ENG_64	0	0.48231E-06	565452.9	4191687.0	98.2	3.05	817.07	58.47	0.08	YES	
ENG_105	0	0.19787E-04	564939.1	4191457.8	71.1	4.57	810.96	70.10	0.23	YES	
ENG_106	0	0.41470E-04	564991.6	4191614.5	73.6	30.48	810.96	70.10	0.20	YES	
ENG_107	0	0.33184E-04	564767.4	4191906.8	76.2	0.00	810.96	70.10	0.18	YES	
ENG_108	0	0.33184E-04	564930.6	4191564.2	68.8	7.62	810.96	70.10	0.18	YES	
ENG_109	0	0.11064E-04	565615.8	4191801.2	111.7	3.05	810.96	70.10	0.15	YES	
ENG_110	0	0.55239E-05	564655.9	4191874.5	68.4	4.57	810.96	70.10	0.10	YES	
ENG_111	0	0.15871E-04	565091.1	4191757.8	78.9	3.05	810.96	70.10	0.11	YES	
ENG_112	0	0.13810E-04	565542.8	4191208.2	85.7	3.05	810.93	70.10	0.10	NO	
ENG_113	0	0.13810E-04	565673.6	4191194.8	92.0	3.05	810.93	70.10	0.10	NO	
ENG_114	0	0.13810E-04	565601.4	4191014.2	86.0	3.05	810.93	70.10	0.10	NO	
ENG_115	0	0.13810E-04	565702.9	4190991.8	91.4	3.05	810.93	70.10	0.10	NO	
ENG_117	0	0.13810E-04	565575.9	4191609.0	99.3	3.05	810.96	70.10	0.10	YES	
ENG_118	0	0.65956E-05	564654.8	4191890.5	68.6	4.57	810.96	70.10	0.13	YES	
ENG_119	0	0.96873E-05	564728.8	4191771.0	70.5	4.57	810.96	70.10	0.08	YES	
ENG_120	0	0.69666E-05	565318.0	4191422.5	86.1	3.05	810.96	70.10	0.08	YES	
ENG_121	0	0.69254E-05	565926.2	4191443.0	118.9	3.05	810.93	70.10	0.08	NO	
ENG_123	0	0.85331E-05	565259.4	4191652.8	88.3	3.05	810.96	70.10	0.08	YES	
ENG_125	0	0.27372E-05	564811.2	4191460.8	67.7	3.05	810.96	70.10	0.08	YES	
ENG_126	0	0.22095E-05	565137.9	4191441.5	77.6	0.00	810.96	70.10	0.08	YES	
ENG_128	0	0.27619E-05	565469.2	4191955.2	109.8	3.05	810.96	70.10	0.05	YES	
ENG_129	0	0.27619E-05	565383.1	4191740.2	97.0	2.44	810.96	70.10	0.05	YES	
ENG_130	0	0.17128E-05	565533.3	4191713.5	98.9	2.44	815.40	134.54	0.08	YES	
ENG_131	0	0.48231E-06	564970.3	4191484.2	71.3	1.83	817.07	58.47	0.08	YES	
ENG_132	0	0.48231E-06	564800.3	4191781.8	74.3	1.83	817.07	58.47	0.08	YES	
E134_133	0	0.12449E-04	565380.0	4191483.2	104.3	3.05	769.29	135.05	0.13	YES	
NEWLAB_A	0	0.24300E-02	564808.8	4191708.2	70.5	6.10	293.15	3.97	1.00	YES	
NEWLAB_B	0	0.49300E-03	565047.0	4191787.5	77.9	6.10	293.15	3.97	1.00	YES	
NEWLAB_C	0	0.27500E-03	565301.9	4191832.0	90.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_D	0	0.14600E-03	565490.2	4191861.5	106.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_E	0	0.39100E-03	565089.5	4191460.8	73.6	6.10	293.15	3.97	1.00	YES	
NEWLAB_F	0	0.31000E-03	565368.8	4191521.8	86.7	6.10	293.15	3.97	1.00	YES	
NEWLAB_G	0	0.89100E-04	565641.7	4191569.5	102.4	6.10	293.15	3.97	1.00	YES	
ENG_STNL	0	0.46380E-05	565539.1	4191905.2	114.2	2.13	769.26	76.14	0.18	YES	
ENG_DVS	0	0.46380E-05	565364.1	4191990.5	109.8	2.13	769.26	76.14	0.18	YES	
ENG_MCCN	0	0.18550E-05	565176.4	4191928.8	93.8	2.13	810.93	59.08	0.13	YES	
ENG_SRB1	0	0.18550E-05	564595.2	4191928.2	67.3	2.13	810.93	59.08	0.13	YES	

```
   ENGNULAB     0   0.46380E-05  564559.2 4191851.0   64.9    2.13   769.26   76.14     0.18      YES
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
ENGMUSIC	0	0.18550E-05	565510.9	4191488.8	94.8	2.13	810.93	59.08	0.13	YES	
ENG_UNT1	0	0.18550E-05	565595.6	4191185.0	87.9	2.13	810.93	59.08	0.13	NO	
ENG_UNT2	0	0.18550E-05	565647.0	4191033.2	88.8	2.13	810.93	59.08	0.13	NO	
ENG_UNT3	0	0.18550E-05	565112.1	4191138.8	72.6	2.13	810.93	59.08	0.13	NO	
ENG116NU	0	0.39260E-05	564775.8	4191177.5	63.2	2.13	810.93	87.63	0.15	NO	
NEWSTAN1	0	0.31800E-03	565533.9	4191904.0	112.9	41.90	293.15	17.25	1.32	YES	
NEWSTAN2	0	0.31800E-03	565535.5	4191899.0	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN3	0	0.31800E-03	565537.2	4191894.5	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN4	0	0.31800E-03	565538.8	4191889.8	112.9	41.90	293.15	17.25	0.61	YES	
NEWSTAN5	0	0.31800E-03	565545.4	4191891.0	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN6	0	0.31800E-03	565543.6	4191896.2	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN7	0	0.31800E-03	565542.0	4191901.0	112.9	41.90	293.15	17.25	0.76	YES	
NEWSTAN8	0	0.31800E-03	565540.3	4191905.8	112.9	41.90	293.15	17.25	0.76	YES	
NEWDAVS1	0	0.30400E-03	565340.6	4191981.0	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS2	0	0.30400E-03	565338.7	4191980.8	108.9	33.79	293.15	12.66	1.63	YES	
NEWDAVS3	0	0.30400E-03	565329.5	4191986.8	109.2	33.79	293.15	13.62	0.86	YES	
NEWDAVS4	0	0.30400E-03	565328.4	4191986.2	109.2	33.79	293.15	13.62	0.86	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
MHSTK5	0	0.37600E-05	564821.2	4191842.8	74.8	6.95	0.07	2.42	
PAINT1	0	0.10600E-05	564917.1	4191432.5	72.0	4.57	3.54	4.25	
PAINT2	0	0.10600E-05	565322.7	4191834.8	96.0	4.57	3.54	4.25	
PAINT3	0	0.10600E-05	565541.5	4191525.8	97.0	4.57	3.54	4.25	
PAINT4	0	0.10600E-05	564865.7	4191751.0	77.0	4.57	3.54	4.25	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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  GROUP ID                                      SOURCE IDs


  ALL      WHSTK1_8, NWAF9  , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
  ,
           KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
  LSASTK2 ,
           LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
  LEWHSTK7,
           LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
  TANHSTKB,
           TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
  ,
           GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
  MULSTK1 ,
           WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
  ,
           PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
  ENG_112 ,
           ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
  ENG_128 ,
           ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133, NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F,
  NEWLAB_G,
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              ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENGMUSIC, ENG_UNT1, ENG_UNT2, ENG_UNT3, ENG116NU, NEWSTAN1,
  NEWSTAN2,

              NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

    WH        WHSTK1_8, WHSTK10 ,

    NWAF      NWAF9   ,

    MH        MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  ,

    KH        KHSTK1  , KHSTK2  , KHSTK3  , KHSTK4  ,

    BH        BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  ,

    VLSB      VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4,

    LSA       LSASTK1 , LSASTK2 , LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 ,

    LEW       LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6, LEWHSTK7, LEWHSTK8, LEWHSTK9,

                                    *** SOURCE IDs DEFINING SOURCE GROUPS ***

    GROUP ID                                         SOURCE IDs

    LAT       LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8,

    TAN       TANHSTKA, TANHSTKB, TANHSTKC, TANHSTKD,

    HH        HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  ,

    GH        GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5  , GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 ,
  GHSTK12 ,

              GHSTK13 ,

    CH        CHSTK1  ,

    HES       HESSTK1 ,

    HIL       HILSTK1 ,

    MUL       MULSTK1 ,

    WEL       WELSTK1 ,

    PRINT     PRINTA  , PRINTB  , PRINTC  ,

    COMBUST   COGEN   , BOILER#2, BOILER#3, BOILER#4,

    HAZMAT    POURING ,

    PAINT     PAINT1  , PAINT2  , PAINT3  , PAINT4  ,

    EXISTLAB  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
  ,
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              KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
 LSASTK2 ,

              LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
 LEWHSTK7,

              LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
 TANHSTKB,

              TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
 ,

              GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
 MULSTK1 ,


                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

   GROUP ID                                   SOURCE IDs

              WELSTK1 ,

   ENGINES   ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 , ENG_112 ,
 ENG_113 ,

              ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 , ENG_128 ,
 ENG_129 ,

              ENG_130 , ENG_131 , ENG_132 , E134_133,

   NEWLABS   NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_F, NEWLAB_G, NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4,
 NEWSTAN5,

              NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

   ALL_LABS  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
 ,

              KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
 LSASTK2 ,

              LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
 LEWHSTK7,

              LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
 TANHSTKB,

              TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
 ,

              GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
 MULSTK1 ,

              WELSTK1 , NEWLAB_A, NEWLAB_B, NEWLAB_C, NEWLAB_D, NEWLAB_E, NEWLAB_G, ENG_UNT3, NEWSTAN1, NEWSTAN2, NEWSTAN3,
 NEWSTAN4,

              NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8, NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,

   EXISTING  WHSTK1_8, NWAF9   , WHSTK10 , MHSTK1  , MHSTK2  , MHSTK3  , MHSTK4  , MHSTK5  , MHSTK6  , KHSTK1  , KHSTK2  , KHSTK3
 ,

              KHSTK4  , BHSTK1  , BHSTK2  , BHSTK3  , BHSTK4  , BHSTK5  , VLSBSTK1, VLSBSTK2, VLSBSTK3, VLSBSTK4, LSASTK1 ,
 LSASTK2 ,

              LSASTK3 , LSASTK4 , LSASTK5 , LSASTK6 , LSASTK7 , LEWHSTK1, LEWHSTK2, LEWHSTK3, LEWHSTK4, LEWHSTK5, LEWHSTK6,
 LEWHSTK7,

              LEWHSTK8, LEWHSTK9, LATHSTK1, LATHSTK2, LATHSTK3, LATHSTK4, LATHSTK5, LATHSTK6, LATHSTK7, LATHSTK8, TANHSTKA,
 TANHSTKB,

              TANHSTKC, TANHSTKD, HHSTKA  , HHSTKB  , HHSTKC  , HHSTKD  , HHSTKE  , GHSTK1  , GHSTK2  , GHSTK3  , GHSTK4  , GHSTK5
 ,

              GHSTK6  , GHSTK7  , GHSTK8  , GHSTK9  , GHSTK10 , GHSTK11 , GHSTK12 , GHSTK13 , CHSTK1  , HESSTK1 , HILSTK1 ,
 MULSTK1 ,
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                    *** SOURCE IDs DEFINING SOURCE GROUPS ***

  GROUP ID                                           SOURCE IDs


           WELSTK1 , PRINTA  , PRINTB  , PRINTC  , COGEN   , BOILER#2, BOILER#3, BOILER#4, POURING , PAINT1  , PAINT2  , PAINT3
,
           PAINT4  , ENG_62  , ENG_63  , ENG_64  , ENG_105 , ENG_106 , ENG_107 , ENG_108 , ENG_109 , ENG_110 , ENG_111 ,
ENG_112 ,
           ENG_113 , ENG_114 , ENG_115 , ENG_117 , ENG_118 , ENG_119 , ENG_120 , ENG_121 , ENG_123 , ENG_125 , ENG_126 ,
ENG_128 ,
           ENG_129 , ENG_130 , ENG_131 , ENG_132 , E134_133,


  NEWLAB_A  NEWLAB_A,


  NEWLAB_B  NEWLAB_B,


  NEWLAB_C  NEWLAB_C,


  NEWLAB_D  NEWLAB_D,


  NEWLAB_E  NEWLAB_E,


  NEWLAB_F  NEWLAB_F,


  NEWLAB_G  NEWLAB_G,


  DAVISNEW  NEWDAVS1, NEWDAVS2, NEWDAVS3, NEWDAVS4,


  STAN_NEW  NEWSTAN1, NEWSTAN2, NEWSTAN3, NEWSTAN4, NEWSTAN5, NEWSTAN6, NEWSTAN7, NEWSTAN8,


  NEWENG    ENG_STNL, ENG_DVS , ENG_MCCN, ENG_SRB1, ENGNULAB, ENG_UNT1, ENG_UNT2, ENG_UNT3,



                        *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CHRONIC  IN MICROGRAMS/M**3                      **

                                                                                             NETWORK
  GROUP ID                        AVERAGE CONC           RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


  ALL     1ST HIGHEST VALUE IS       0.07843 AT (  564945.62,  4192065.50,    102.72,     0.00) DC     NA
          2ND HIGHEST VALUE IS       0.06228 AT (  565700.06,  4191711.25,    109.42,     0.00) DC     NA
          3RD HIGHEST VALUE IS       0.06099 AT (  564926.69,  4192158.75,    109.42,     0.00) DC     NA
          4TH HIGHEST VALUE IS       0.06094 AT (  565700.06,  4191711.25,    108.20,     0.00) DC     NA
          5TH HIGHEST VALUE IS       0.05767 AT (  565009.00,  4192130.00,    110.64,     0.00) DC     NA
          6TH HIGHEST VALUE IS       0.04008 AT (  564487.38,  4192391.25,     80.16,     0.00) DC     NA
          7TH HIGHEST VALUE IS       0.03776 AT (  564591.56,  4192414.75,     83.82,     0.00) DC     NA
          8TH HIGHEST VALUE IS       0.03714 AT (  565144.62,  4192620.50,    154.84,     0.00) DC     NA
          9TH HIGHEST VALUE IS       0.03497 AT (  565202.31,  4192629.00,    160.32,     0.00) DC     NA
         10TH HIGHEST VALUE IS       0.03415 AT (  565233.75,  4192605.00,    159.72,     0.00) DC     NA


  WH      1ST HIGHEST VALUE IS       0.00002 AT (  564945.62,  4192065.50,    102.72,     0.00) DC     NA
          2ND HIGHEST VALUE IS       0.00002 AT (  564228.31,  4192049.25,     64.62,     0.00) DC     NA
          3RD HIGHEST VALUE IS       0.00002 AT (  564487.38,  4192391.25,     80.16,     0.00) DC     NA
          4TH HIGHEST VALUE IS       0.00002 AT (  564926.69,  4192158.75,    109.42,     0.00) DC     NA
          5TH HIGHEST VALUE IS       0.00002 AT (  564160.38,  4192207.75,     64.31,     0.00) DC     NA
          6TH HIGHEST VALUE IS       0.00001 AT (  565009.00,  4192130.00,    110.64,     0.00) DC     NA
          7TH HIGHEST VALUE IS       0.00001 AT (  564249.94,  4192208.00,     66.75,     0.00) DC     NA
          8TH HIGHEST VALUE IS       0.00001 AT (  564079.94,  4192117.50,     61.57,     0.00) DC     NA
          9TH HIGHEST VALUE IS       0.00001 AT (  564591.56,  4192414.75,     83.82,     0.00) DC     NA
         10TH HIGHEST VALUE IS       0.00001 AT (  564933.25,  4191275.25,     71.32,     0.00) DC     NA

  NWAF    1ST HIGHEST VALUE IS       0.00027 AT (  564945.62,  4192065.50,    102.72,     0.00) DC     NA
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            2ND HIGHEST VALUE IS     0.00023 AT ( 565700.06,  4191711.25,    108.20,    0.00) DC     NA
            3RD HIGHEST VALUE IS     0.00023 AT ( 564926.69,  4192158.75,    109.42,    0.00) DC     NA
            4TH HIGHEST VALUE IS     0.00023 AT ( 565700.06,  4191711.25,    109.42,    0.00) DC     NA
            5TH HIGHEST VALUE IS     0.00022 AT ( 565009.00,  4192130.00,    110.64,    0.00) DC     NA
            6TH HIGHEST VALUE IS     0.00016 AT ( 564933.25,  4191275.25,     71.32,    0.00) DC     NA
            7TH HIGHEST VALUE IS     0.00012 AT ( 565070.19,  4191077.50,     70.41,    0.00) DC     NA
            8TH HIGHEST VALUE IS     0.00011 AT ( 564735.81,  4192658.00,    100.28,    0.00) DC     NA
            9TH HIGHEST VALUE IS     0.00011 AT ( 564729.75,  4192662.25,    100.28,    0.00) DC     NA
           10TH HIGHEST VALUE IS     0.00011 AT ( 566063.25,  4190799.75,    101.19,    0.00) DC     NA


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***

                      ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                          NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

MH       1ST HIGHEST VALUE IS     0.00019 AT ( 564945.62,  4192065.50,    102.72,    0.00) DC     NA
         2ND HIGHEST VALUE IS     0.00015 AT ( 564926.69,  4192158.75,    109.42,    0.00) DC     NA
         3RD HIGHEST VALUE IS     0.00012 AT ( 564487.38,  4192391.25,     80.16,    0.00) DC     NA
         4TH HIGHEST VALUE IS     0.00012 AT ( 565009.00,  4192130.00,    110.64,    0.00) DC     NA
         5TH HIGHEST VALUE IS     0.00011 AT ( 564591.56,  4192414.75,     83.82,    0.00) DC     NA
         6TH HIGHEST VALUE IS     0.00010 AT ( 564249.94,  4192208.00,     66.75,    0.00) DC     NA
         7TH HIGHEST VALUE IS     0.00010 AT ( 564933.25,  4191275.25,     71.32,    0.00) DC     NA
         8TH HIGHEST VALUE IS     0.00009 AT ( 565700.06,  4191711.25,    108.20,    0.00) DC     NA
         9TH HIGHEST VALUE IS     0.00009 AT ( 565700.06,  4191711.25,    109.42,    0.00) DC     NA
        10TH HIGHEST VALUE IS     0.00008 AT ( 564525.06,  4192613.75,     85.65,    0.00) DC     NA

KH       1ST HIGHEST VALUE IS     0.00366 AT ( 564945.62,  4192065.50,    102.72,    0.00) DC     NA
         2ND HIGHEST VALUE IS     0.00242 AT ( 565009.00,  4192130.00,    110.64,    0.00) DC     NA
         3RD HIGHEST VALUE IS     0.00238 AT ( 564926.69,  4192158.75,    109.42,    0.00) DC     NA
         4TH HIGHEST VALUE IS     0.00178 AT ( 564487.38,  4192391.25,     80.16,    0.00) DC     NA
         5TH HIGHEST VALUE IS     0.00156 AT ( 565700.06,  4191711.25,    108.20,    0.00) DC     NA
         6TH HIGHEST VALUE IS     0.00156 AT ( 565700.06,  4191711.25,    109.42,    0.00) DC     NA
         7TH HIGHEST VALUE IS     0.00153 AT ( 564249.94,  4192208.00,     66.75,    0.00) DC     NA
         8TH HIGHEST VALUE IS     0.00152 AT ( 564591.56,  4192414.75,     83.82,    0.00) DC     NA
         9TH HIGHEST VALUE IS     0.00125 AT ( 564933.25,  4191275.25,     71.32,    0.00) DC     NA
        10TH HIGHEST VALUE IS     0.00123 AT ( 564160.38,  4192207.75,     64.31,    0.00) DC     NA

BH       1ST HIGHEST VALUE IS     0.00037 AT ( 564945.62,  4192065.50,    102.72,    0.00) DC     NA
         2ND HIGHEST VALUE IS     0.00024 AT ( 565009.00,  4192130.00,    110.64,    0.00) DC     NA
         3RD HIGHEST VALUE IS     0.00021 AT ( 564926.69,  4192158.75,    109.42,    0.00) DC     NA
         4TH HIGHEST VALUE IS     0.00016 AT ( 564249.94,  4192208.00,     66.75,    0.00) DC     NA
         5TH HIGHEST VALUE IS     0.00016 AT ( 565700.06,  4191711.25,    108.20,    0.00) DC     NA
         6TH HIGHEST VALUE IS     0.00016 AT ( 565700.06,  4191711.25,    109.42,    0.00) DC     NA
         7TH HIGHEST VALUE IS     0.00015 AT ( 564487.38,  4192391.25,     80.16,    0.00) DC     NA
         8TH HIGHEST VALUE IS     0.00013 AT ( 564228.31,  4192049.25,     64.62,    0.00) DC     NA
         9TH HIGHEST VALUE IS     0.00013 AT ( 564591.56,  4192414.75,     83.82,    0.00) DC     NA
        10TH HIGHEST VALUE IS     0.00013 AT ( 564160.38,  4192207.75,     64.31,    0.00) DC     NA


                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***

                      ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                          NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)  OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

VLSB     1ST HIGHEST VALUE IS     0.00235 AT ( 564945.62,  4192065.50,    102.72,    0.00) DC     NA
         2ND HIGHEST VALUE IS     0.00169 AT ( 565700.06,  4191711.25,    108.20,    0.00) DC     NA
         3RD HIGHEST VALUE IS     0.00168 AT ( 565700.06,  4191711.25,    109.42,    0.00) DC     NA
         4TH HIGHEST VALUE IS     0.00150 AT ( 564926.69,  4192158.75,    109.42,    0.00) DC     NA
         5TH HIGHEST VALUE IS     0.00150 AT ( 565009.00,  4192130.00,    110.64,    0.00) DC     NA
         6TH HIGHEST VALUE IS     0.00141 AT ( 565328.31,  4191032.50,     74.68,    0.00) DC     NA
         7TH HIGHEST VALUE IS     0.00112 AT ( 564487.38,  4192391.25,     80.16,    0.00) DC     NA
         8TH HIGHEST VALUE IS     0.00105 AT ( 564591.56,  4192414.75,     83.82,    0.00) DC     NA
         9TH HIGHEST VALUE IS     0.00102 AT ( 566063.25,  4190799.75,    101.19,    0.00) DC     NA
        10TH HIGHEST VALUE IS     0.00099 AT ( 565070.19,  4191077.50,     70.41,    0.00) DC     NA

LSA      1ST HIGHEST VALUE IS     0.00230 AT ( 564945.62,  4192065.50,    102.72,    0.00) DC     NA
         2ND HIGHEST VALUE IS     0.00142 AT ( 565700.06,  4191711.25,    108.20,    0.00) DC     NA
         3RD HIGHEST VALUE IS     0.00141 AT ( 565009.00,  4192130.00,    110.64,    0.00) DC     NA
         4TH HIGHEST VALUE IS     0.00139 AT ( 564926.69,  4192158.75,    109.42,    0.00) DC     NA
         5TH HIGHEST VALUE IS     0.00138 AT ( 565700.06,  4191711.25,    109.42,    0.00) DC     NA
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           6TH HIGHEST VALUE IS      0.00132 AT (  565070.19,  4191077.50,     70.41,    0.00)  DC     NA
           7TH HIGHEST VALUE IS      0.00130 AT (  564933.25,  4191275.25,     71.32,    0.00)  DC     NA
           8TH HIGHEST VALUE IS      0.00129 AT (  565328.31,  4191032.50,     74.68,    0.00)  DC     NA
           9TH HIGHEST VALUE IS      0.00097 AT (  564249.94,  4192208.00,     66.75,    0.00)  DC     NA
          10TH HIGHEST VALUE IS      0.00095 AT (  564487.38,  4192391.25,     80.16,    0.00)  DC     NA

LEW     1ST HIGHEST VALUE IS      0.00042 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
        2ND HIGHEST VALUE IS      0.00042 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
        3RD HIGHEST VALUE IS      0.00007 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
        4TH HIGHEST VALUE IS      0.00006 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA
        5TH HIGHEST VALUE IS      0.00006 AT (  565202.31,  4192629.00,    160.32,    0.00)  DC     NA
        6TH HIGHEST VALUE IS      0.00006 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
        7TH HIGHEST VALUE IS      0.00005 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
        8TH HIGHEST VALUE IS      0.00005 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
        9TH HIGHEST VALUE IS      0.00004 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA
       10TH HIGHEST VALUE IS      0.00003 AT (  564735.81,  4192658.00,    100.28,    0.00)  DC     NA


                      *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                 ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

LAT     1ST HIGHEST VALUE IS      0.00060 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
        2ND HIGHEST VALUE IS      0.00056 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
        3RD HIGHEST VALUE IS      0.00016 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
        4TH HIGHEST VALUE IS      0.00015 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
        5TH HIGHEST VALUE IS      0.00014 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA
        6TH HIGHEST VALUE IS      0.00014 AT (  565202.31,  4192629.00,    160.32,    0.00)  DC     NA
        7TH HIGHEST VALUE IS      0.00013 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
        8TH HIGHEST VALUE IS      0.00011 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
        9TH HIGHEST VALUE IS      0.00009 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA
       10TH HIGHEST VALUE IS      0.00007 AT (  564735.81,  4192658.00,    100.28,    0.00)  DC     NA

TAN     1ST HIGHEST VALUE IS      0.00032 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
        2ND HIGHEST VALUE IS      0.00030 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
        3RD HIGHEST VALUE IS      0.00008 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
        4TH HIGHEST VALUE IS      0.00006 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
        5TH HIGHEST VALUE IS      0.00006 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
        6TH HIGHEST VALUE IS      0.00006 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
        7TH HIGHEST VALUE IS      0.00006 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA
        8TH HIGHEST VALUE IS      0.00006 AT (  565202.31,  4192629.00,    160.32,    0.00)  DC     NA
        9TH HIGHEST VALUE IS      0.00004 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA
       10TH HIGHEST VALUE IS      0.00003 AT (  564735.81,  4192658.00,    100.28,    0.00)  DC     NA

HH      1ST HIGHEST VALUE IS      0.00273 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
        2ND HIGHEST VALUE IS      0.00255 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
        3RD HIGHEST VALUE IS      0.00028 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
        4TH HIGHEST VALUE IS      0.00025 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
        5TH HIGHEST VALUE IS      0.00024 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
        6TH HIGHEST VALUE IS      0.00024 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
        7TH HIGHEST VALUE IS      0.00022 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA
        8TH HIGHEST VALUE IS      0.00021 AT (  565202.31,  4192629.00,    160.32,    0.00)  DC     NA
        9TH HIGHEST VALUE IS      0.00017 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA
       10TH HIGHEST VALUE IS      0.00014 AT (  564735.81,  4192658.00,    100.28,    0.00)  DC     NA


                      *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                 ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                      NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

GH      1ST HIGHEST VALUE IS      0.00044 AT (  565700.06,  4191711.25,    109.42,    0.00)  DC     NA
        2ND HIGHEST VALUE IS      0.00043 AT (  565700.06,  4191711.25,    108.20,    0.00)  DC     NA
        3RD HIGHEST VALUE IS      0.00007 AT (  565009.00,  4192130.00,    110.64,    0.00)  DC     NA
        4TH HIGHEST VALUE IS      0.00006 AT (  564945.62,  4192065.50,    102.72,    0.00)  DC     NA
        5TH HIGHEST VALUE IS      0.00006 AT (  564926.69,  4192158.75,    109.42,    0.00)  DC     NA
        6TH HIGHEST VALUE IS      0.00004 AT (  565144.62,  4192620.50,    154.84,    0.00)  DC     NA
        7TH HIGHEST VALUE IS      0.00004 AT (  565233.75,  4192605.00,    159.72,    0.00)  DC     NA
        8TH HIGHEST VALUE IS      0.00004 AT (  565202.31,  4192629.00,    160.32,    0.00)  DC     NA
        9TH HIGHEST VALUE IS      0.00003 AT (  566093.38,  4191024.75,    114.60,    0.00)  DC     NA
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          10TH HIGHEST VALUE IS        0.00003 AT (  564735.81,  4192658.00,     100.28,     0.00) DC     NA

CH     1ST HIGHEST VALUE IS           0.00011 AT (  565700.06,  4191711.25,     109.42,     0.00) DC     NA
       2ND HIGHEST VALUE IS           0.00011 AT (  565009.00,  4192130.00,     110.64,     0.00) DC     NA
       3RD HIGHEST VALUE IS           0.00011 AT (  565144.62,  4192620.50,     154.84,     0.00) DC     NA
       4TH HIGHEST VALUE IS           0.00011 AT (  565700.06,  4191711.25,     108.20,     0.00) DC     NA
       5TH HIGHEST VALUE IS           0.00009 AT (  565202.31,  4192629.00,     160.32,     0.00) DC     NA
       6TH HIGHEST VALUE IS           0.00009 AT (  565233.75,  4192605.00,     159.72,     0.00) DC     NA
       7TH HIGHEST VALUE IS           0.00009 AT (  564926.69,  4192158.75,     109.42,     0.00) DC     NA
       8TH HIGHEST VALUE IS           0.00005 AT (  564945.62,  4192065.50,     102.72,     0.00) DC     NA
       9TH HIGHEST VALUE IS           0.00004 AT (  564735.81,  4192658.00,     100.28,     0.00) DC     NA
      10TH HIGHEST VALUE IS           0.00004 AT (  564729.75,  4192662.25,     100.28,     0.00) DC     NA

HES    1ST HIGHEST VALUE IS           0.00122 AT (  565009.00,  4192130.00,     110.64,     0.00) DC     NA
       2ND HIGHEST VALUE IS           0.00092 AT (  564945.62,  4192065.50,     102.72,     0.00) DC     NA
       3RD HIGHEST VALUE IS           0.00090 AT (  564926.69,  4192158.75,     109.42,     0.00) DC     NA
       4TH HIGHEST VALUE IS           0.00064 AT (  565700.06,  4191711.25,     109.42,     0.00) DC     NA
       5TH HIGHEST VALUE IS           0.00064 AT (  565700.06,  4191711.25,     108.20,     0.00) DC     NA
       6TH HIGHEST VALUE IS           0.00027 AT (  566093.38,  4191024.75,     114.60,     0.00) DC     NA
       7TH HIGHEST VALUE IS           0.00026 AT (  564735.81,  4192658.00,     100.28,     0.00) DC     NA
       8TH HIGHEST VALUE IS           0.00026 AT (  564729.75,  4192662.25,     100.28,     0.00) DC     NA
       9TH HIGHEST VALUE IS           0.00025 AT (  565144.62,  4192620.50,     154.84,     0.00) DC     NA
      10TH HIGHEST VALUE IS           0.00025 AT (  565233.75,  4192605.00,     159.72,     0.00) DC     NA


                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


              ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                    NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

HIL    1ST HIGHEST VALUE IS           0.03120 AT (  564945.62,  4192065.50,     102.72,     0.00) DC     NA
       2ND HIGHEST VALUE IS           0.01874 AT (  564926.69,  4192158.75,     109.42,     0.00) DC     NA
       3RD HIGHEST VALUE IS           0.01566 AT (  565009.00,  4192130.00,     110.64,     0.00) DC     NA
       4TH HIGHEST VALUE IS           0.01252 AT (  565700.06,  4191711.25,     108.20,     0.00) DC     NA
       5TH HIGHEST VALUE IS           0.01244 AT (  565700.06,  4191711.25,     109.42,     0.00) DC     NA
       6TH HIGHEST VALUE IS           0.01153 AT (  564591.56,  4192414.75,      83.82,     0.00) DC     NA
       7TH HIGHEST VALUE IS           0.01134 AT (  564487.38,  4192391.25,      80.16,     0.00) DC     NA
       8TH HIGHEST VALUE IS           0.00801 AT (  564525.06,  4192613.75,      85.65,     0.00) DC     NA
       9TH HIGHEST VALUE IS           0.00759 AT (  564729.75,  4192662.25,     100.28,     0.00) DC     NA
      10TH HIGHEST VALUE IS           0.00754 AT (  564249.94,  4192208.00,      66.75,     0.00) DC     NA

MUL    1ST HIGHEST VALUE IS           0.00000 AT (  564945.62,  4192065.50,     102.72,     0.00) DC     NA
       2ND HIGHEST VALUE IS           0.00000 AT (  564926.69,  4192158.75,     109.42,     0.00) DC     NA
       3RD HIGHEST VALUE IS           0.00000 AT (  564933.25,  4191275.25,      71.32,     0.00) DC     NA
       4TH HIGHEST VALUE IS           0.00000 AT (  565009.00,  4192130.00,     110.64,     0.00) DC     NA
       5TH HIGHEST VALUE IS           0.00000 AT (  564487.38,  4192391.25,      80.16,     0.00) DC     NA
       6TH HIGHEST VALUE IS           0.00000 AT (  564249.94,  4192208.00,      66.75,     0.00) DC     NA
       7TH HIGHEST VALUE IS           0.00000 AT (  565700.06,  4191711.25,     108.20,     0.00) DC     NA
       8TH HIGHEST VALUE IS           0.00000 AT (  565700.06,  4191711.25,     109.42,     0.00) DC     NA
       9TH HIGHEST VALUE IS           0.00000 AT (  564228.31,  4192049.25,      64.62,     0.00) DC     NA
      10TH HIGHEST VALUE IS           0.00000 AT (  564591.56,  4192414.75,      83.82,     0.00) DC     NA

WEL    1ST HIGHEST VALUE IS           0.00004 AT (  564945.62,  4192065.50,     102.72,     0.00) DC     NA
       2ND HIGHEST VALUE IS           0.00003 AT (  565009.00,  4192130.00,     110.64,     0.00) DC     NA
       3RD HIGHEST VALUE IS           0.00003 AT (  564926.69,  4192158.75,     109.42,     0.00) DC     NA
       4TH HIGHEST VALUE IS           0.00002 AT (  564487.38,  4192391.25,      80.16,     0.00) DC     NA
       5TH HIGHEST VALUE IS           0.00002 AT (  565700.06,  4191711.25,     108.20,     0.00) DC     NA
       6TH HIGHEST VALUE IS           0.00002 AT (  565700.06,  4191711.25,     109.42,     0.00) DC     NA
       7TH HIGHEST VALUE IS           0.00002 AT (  564591.56,  4192414.75,      83.82,     0.00) DC     NA
       8TH HIGHEST VALUE IS           0.00001 AT (  564249.94,  4192208.00,      66.75,     0.00) DC     NA
       9TH HIGHEST VALUE IS           0.00001 AT (  564525.06,  4192613.75,      85.65,     0.00) DC     NA
      10TH HIGHEST VALUE IS           0.00001 AT (  564160.38,  4192207.75,      64.31,     0.00) DC     NA


                    *** THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS ***


              ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                    NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PRINT  1ST HIGHEST VALUE IS           0.00071 AT (  564933.25,  4191275.25,      71.32,     0.00) DC     NA
       2ND HIGHEST VALUE IS           0.00067 AT (  564839.88,  4191259.75,      67.36,     0.00) DC     NA
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                3RD HIGHEST VALUE IS    0.00059 AT (  564859.75,  4191226.00,    67.67,    0.00)  DC     NA
                4TH HIGHEST VALUE IS    0.00040 AT (  565070.19,  4191077.50,    70.41,    0.00)  DC     NA
                5TH HIGHEST VALUE IS    0.00033 AT (  564228.31,  4192049.25,    64.62,    0.00)  DC     NA
                6TH HIGHEST VALUE IS    0.00027 AT (  564786.81,  4191021.25,    61.26,    0.00)  DC     NA
                7TH HIGHEST VALUE IS    0.00026 AT (  564079.94,  4192117.50,    61.57,    0.00)  DC     NA
                8TH HIGHEST VALUE IS    0.00023 AT (  565328.31,  4191032.50,    74.68,    0.00)  DC     NA
                9TH HIGHEST VALUE IS    0.00021 AT (  564160.38,  4192207.75,    64.31,    0.00)  DC     NA
               10TH HIGHEST VALUE IS    0.00020 AT (  564249.94,  4192208.00,    66.75,    0.00)  DC     NA

COMBUST  1ST HIGHEST VALUE IS    0.01198 AT (  565144.62,  4192620.50,   154.84,    0.00)  DC     NA
                2ND HIGHEST VALUE IS    0.01139 AT (  565202.31,  4192629.00,   160.32,    0.00)  DC     NA
                3RD HIGHEST VALUE IS    0.01102 AT (  565233.75,  4192605.00,   159.72,    0.00)  DC     NA
                4TH HIGHEST VALUE IS    0.00941 AT (  566729.00,  4190469.25,   136.86,    0.00)  DC     NA
                5TH HIGHEST VALUE IS    0.00854 AT (  567269.62,  4189942.75,   174.65,    0.00)  DC     NA
                6TH HIGHEST VALUE IS    0.00792 AT (  566093.38,  4191024.75,   114.60,    0.00)  DC     NA
                7TH HIGHEST VALUE IS    0.00677 AT (  565700.06,  4191711.25,   109.42,    0.00)  DC     NA
                8TH HIGHEST VALUE IS    0.00667 AT (  567693.00,  4189595.75,   193.24,    0.00)  DC     NA
                9TH HIGHEST VALUE IS    0.00647 AT (  565700.06,  4191711.25,   108.20,    0.00)  DC     NA
               10TH HIGHEST VALUE IS    0.00522 AT (  566166.56,  4190836.25,   107.59,    0.00)  DC     NA

HAZMAT   1ST HIGHEST VALUE IS    0.00002 AT (  564933.25,  4191275.25,    71.32,    0.00)  DC     NA
                2ND HIGHEST VALUE IS    0.00001 AT (  565070.19,  4191077.50,    70.41,    0.00)  DC     NA
                3RD HIGHEST VALUE IS    0.00001 AT (  564859.75,  4191226.00,    67.67,    0.00)  DC     NA
                4TH HIGHEST VALUE IS    0.00001 AT (  564839.88,  4191259.75,    67.36,    0.00)  DC     NA
                5TH HIGHEST VALUE IS    0.00001 AT (  565328.31,  4191032.50,    74.68,    0.00)  DC     NA
                6TH HIGHEST VALUE IS    0.00001 AT (  565130.12,  4190916.25,    66.75,    0.00)  DC     NA
                7TH HIGHEST VALUE IS    0.00001 AT (  564228.31,  4192049.25,    64.62,    0.00)  DC     NA
                8TH HIGHEST VALUE IS    0.00001 AT (  564945.62,  4192065.50,   102.72,    0.00)  DC     NA
                9TH HIGHEST VALUE IS    0.00001 AT (  564249.94,  4192208.00,    66.75,    0.00)  DC     NA
               10TH HIGHEST VALUE IS    0.00000 AT (  564160.38,  4192207.75,    64.31,    0.00)  DC     NA


                      *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                            NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PAINT    1ST HIGHEST VALUE IS    0.00005 AT (  565700.06,  4191711.25,   109.42,    0.00)  DC     NA
                2ND HIGHEST VALUE IS    0.00005 AT (  565700.06,  4191711.25,   108.20,    0.00)  DC     NA
                3RD HIGHEST VALUE IS    0.00005 AT (  564945.62,  4192065.50,   102.72,    0.00)  DC     NA
                4TH HIGHEST VALUE IS    0.00004 AT (  565009.00,  4192130.00,   110.64,    0.00)  DC     NA
                5TH HIGHEST VALUE IS    0.00004 AT (  564933.25,  4191275.25,    71.32,    0.00)  DC     NA
                6TH HIGHEST VALUE IS    0.00004 AT (  564926.69,  4192158.75,   109.42,    0.00)  DC     NA
                7TH HIGHEST VALUE IS    0.00002 AT (  565070.19,  4191077.50,    70.41,    0.00)  DC     NA
                8TH HIGHEST VALUE IS    0.00002 AT (  565328.31,  4191032.50,    74.68,    0.00)  DC     NA
                9TH HIGHEST VALUE IS    0.00002 AT (  564487.38,  4192391.25,    80.16,    0.00)  DC     NA
               10TH HIGHEST VALUE IS    0.00002 AT (  564591.56,  4192414.75,    83.82,    0.00)  DC     NA

EXISTLAB 1ST HIGHEST VALUE IS    0.04188 AT (  564945.62,  4192065.50,   102.72,    0.00)  DC     NA
                2ND HIGHEST VALUE IS    0.02619 AT (  564926.69,  4192158.75,   109.42,    0.00)  DC     NA
                3RD HIGHEST VALUE IS    0.02358 AT (  565009.00,  4192130.00,   110.64,    0.00)  DC     NA
                4TH HIGHEST VALUE IS    0.02282 AT (  565700.06,  4191711.25,   109.42,    0.00)  DC     NA
                5TH HIGHEST VALUE IS    0.02269 AT (  565700.06,  4191711.25,   108.20,    0.00)  DC     NA
                6TH HIGHEST VALUE IS    0.01597 AT (  564487.38,  4192391.25,    80.16,    0.00)  DC     NA
                7TH HIGHEST VALUE IS    0.01581 AT (  564591.56,  4192414.75,    83.82,    0.00)  DC     NA
                8TH HIGHEST VALUE IS    0.01150 AT (  564249.94,  4192208.00,    66.75,    0.00)  DC     NA
                9TH HIGHEST VALUE IS    0.01115 AT (  564525.06,  4192613.75,    85.65,    0.00)  DC     NA
               10TH HIGHEST VALUE IS    0.01103 AT (  564729.75,  4192662.25,   100.28,    0.00)  DC     NA

ENGINES  1ST HIGHEST VALUE IS    0.00189 AT (  565700.06,  4191711.25,   109.42,    0.00)  DC     NA
                2ND HIGHEST VALUE IS    0.00188 AT (  565700.06,  4191711.25,   108.20,    0.00)  DC     NA
                3RD HIGHEST VALUE IS    0.00167 AT (  564945.62,  4192065.50,   102.72,    0.00)  DC     NA
                4TH HIGHEST VALUE IS    0.00133 AT (  565009.00,  4192130.00,   110.64,    0.00)  DC     NA
                5TH HIGHEST VALUE IS    0.00131 AT (  564926.69,  4192158.75,   109.42,    0.00)  DC     NA
                6TH HIGHEST VALUE IS    0.00126 AT (  566093.38,  4191024.75,   114.60,    0.00)  DC     NA
                7TH HIGHEST VALUE IS    0.00100 AT (  566166.56,  4190836.25,   107.59,    0.00)  DC     NA
                8TH HIGHEST VALUE IS    0.00094 AT (  566063.25,  4190799.75,   101.19,    0.00)  DC     NA
                9TH HIGHEST VALUE IS    0.00074 AT (  564487.38,  4192391.25,    80.16,    0.00)  DC     NA
               10TH HIGHEST VALUE IS    0.00070 AT (  564591.56,  4192414.75,    83.82,    0.00)  DC     NA


                      *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                    ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **
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                                                                     NETWORK
GROUP ID                    AVERAGE CONC         RECEPTOR  (XR, YR, ZELEV, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLABS  1ST HIGHEST VALUE IS     0.03225 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.03052 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.02968 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.02962 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.02872 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.02229 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.02087 AT (  564933.25,  4191275.25,     71.32,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.02006 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.01729 AT (  565144.62,  4192620.50,    154.84,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.01649 AT (  565202.31,  4192629.00,    160.32,      0.00)  DC      NA


ALL_LABS 1ST HIGHEST VALUE IS     0.07158 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.05382 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.05091 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.05021 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.04988 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.03733 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.03505 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.02993 AT (  564933.25,  4191275.25,     71.32,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.02744 AT (  564249.94,  4192208.00,     66.75,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.02645 AT (  564525.06,  4192613.75,     85.65,      0.00)  DC      NA


EXISTING 1ST HIGHEST VALUE IS     0.04604 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.03162 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.03118 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.03118 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.02880 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.01978 AT (  565144.62,  4192620.50,    154.84,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.01842 AT (  565202.31,  4192629.00,    160.32,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.01785 AT (  565233.75,  4192605.00,    159.72,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.01774 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.01764 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA



                         *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                     ** CONC OF CHRONIC  IN MICROGRAMS/M**3                    **

                                                                     NETWORK
GROUP ID                    AVERAGE CONC         RECEPTOR  (XR, YR, ZELEV, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_A 1ST HIGHEST VALUE IS     0.01799 AT (  564933.25,  4191275.25,     71.32,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.01425 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.01404 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.01228 AT (  564249.94,  4192208.00,     66.75,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.01208 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.01186 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.01105 AT (  565070.19,  4191077.50,     70.41,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.01100 AT (  564228.31,  4192049.25,     64.62,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.01044 AT (  564839.88,  4191259.75,     67.36,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.01035 AT (  564160.38,  4192207.75,     64.31,      0.00)  DC      NA


NEWLAB_B 1ST HIGHEST VALUE IS     0.00646 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.00443 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.00392 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.00344 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.00344 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.00295 AT (  564487.38,  4192391.25,     80.16,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00282 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00279 AT (  564525.06,  4192613.75,     85.65,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00181 AT (  564294.50,  4192949.00,     85.65,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00168 AT (  564735.81,  4192658.00,    100.28,      0.00)  DC      NA


NEWLAB_C 1ST HIGHEST VALUE IS     0.00450 AT (  565009.00,  4192130.00,    110.64,      0.00)  DC      NA
         2ND HIGHEST VALUE IS     0.00431 AT (  565700.06,  4191711.25,    108.20,      0.00)  DC      NA
         3RD HIGHEST VALUE IS     0.00426 AT (  565700.06,  4191711.25,    109.42,      0.00)  DC      NA
         4TH HIGHEST VALUE IS     0.00407 AT (  564945.62,  4192065.50,    102.72,      0.00)  DC      NA
         5TH HIGHEST VALUE IS     0.00375 AT (  564926.69,  4192158.75,    109.42,      0.00)  DC      NA
         6TH HIGHEST VALUE IS     0.00138 AT (  564729.75,  4192662.25,    100.28,      0.00)  DC      NA
         7TH HIGHEST VALUE IS     0.00137 AT (  564735.81,  4192658.00,    100.28,      0.00)  DC      NA
         8TH HIGHEST VALUE IS     0.00099 AT (  564591.56,  4192414.75,     83.82,      0.00)  DC      NA
         9TH HIGHEST VALUE IS     0.00088 AT (  566093.38,  4191024.75,    114.60,      0.00)  DC      NA
        10TH HIGHEST VALUE IS     0.00086 AT (  566063.25,  4190799.75,    101.19,      0.00)  DC      NA
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                              *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                          ** CONC OF CHRONIC   IN MICROGRAMS/M**3                           **

                                                                                      NETWORK
GROUP ID                     AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_D 1ST HIGHEST VALUE IS      0.00164 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.00163 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.00063 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.00060 AT (  565144.62,  4192620.50,     154.84,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.00053 AT (  565202.31,  4192629.00,     160.32,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.00052 AT (  565233.75,  4192605.00,     159.72,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.00052 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.00051 AT (  566093.38,  4191024.75,     114.60,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.00048 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.00034 AT (  564735.81,  4192658.00,     100.28,     0.00)  DC      NA

NEWLAB_E 1ST HIGHEST VALUE IS      0.00247 AT (  565328.31,  4191032.50,      74.68,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.00203 AT (  565698.50,  4190595.00,      81.08,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.00193 AT (  564487.38,  4192391.25,      80.16,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.00174 AT (  564591.56,  4192414.75,      83.82,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.00172 AT (  565729.00,  4190469.25,      81.08,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.00170 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.00165 AT (  565787.88,  4190436.50,      82.91,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.00161 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.00161 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.00144 AT (  565936.88,  4190529.25,      90.83,     0.00)  DC      NA

NEWLAB_F 1ST HIGHEST VALUE IS      0.00254 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.00244 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.00242 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.00209 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.00206 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.00137 AT (  566063.25,  4190799.75,     101.19,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.00134 AT (  566093.38,  4191024.75,     114.60,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.00130 AT (  566166.56,  4190836.25,     107.59,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.00095 AT (  564729.75,  4192662.25,     100.29,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.00095 AT (  564735.81,  4192658.00,     100.28,     0.00)  DC      NA



                              *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                          ** CONC OF CHRONIC   IN MICROGRAMS/M**3                           **

                                                                                      NETWORK
GROUP ID                     AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWLAB_G 1ST HIGHEST VALUE IS      0.00183 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.00134 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.00056 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.00056 AT (  566093.38,  4191024.75,     114.60,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.00048 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.00031 AT (  564945.62,  4192065.50,     102.72,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.00024 AT (  566166.56,  4190836.25,     107.59,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.00024 AT (  566063.25,  4190799.75,     101.19,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.00023 AT (  565144.62,  4192620.50,     154.84,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.00021 AT (  565233.75,  4192605.00,     159.72,     0.00)  DC      NA

DAVISNEW 1ST HIGHEST VALUE IS      0.00375 AT (  565144.62,  4192620.50,     154.84,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.00316 AT (  565202.31,  4192629.00,     160.32,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.00305 AT (  565233.75,  4192605.00,     159.72,     0.00)  DC      NA
         4TH HIGHEST VALUE IS      0.00274 AT (  565009.00,  4192130.00,     110.64,     0.00)  DC      NA
         5TH HIGHEST VALUE IS      0.00211 AT (  564926.69,  4192158.75,     109.42,     0.00)  DC      NA
         6TH HIGHEST VALUE IS      0.00196 AT (  565700.06,  4191711.25,     109.42,     0.00)  DC      NA
         7TH HIGHEST VALUE IS      0.00184 AT (  565700.06,  4191711.25,     108.20,     0.00)  DC      NA
         8TH HIGHEST VALUE IS      0.00110 AT (  564735.81,  4192658.00,     100.28,     0.00)  DC      NA
         9TH HIGHEST VALUE IS      0.00110 AT (  564729.75,  4192662.25,     100.28,     0.00)  DC      NA
        10TH HIGHEST VALUE IS      0.00103 AT (  566093.38,  4191024.75,     114.60,     0.00)  DC      NA

STAN_NEW 1ST HIGHEST VALUE IS      0.00696 AT (  565233.75,  4192605.00,     159.72,     0.00)  DC      NA
         2ND HIGHEST VALUE IS      0.00692 AT (  565202.31,  4192629.00,     160.32,     0.00)  DC      NA
         3RD HIGHEST VALUE IS      0.00634 AT (  565144.62,  4192620.50,     154.84,     0.00)  DC      NA
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                     4TH HIGHEST VALUE IS      0.00475 AT (  565700.06,  4191711.25,    109.42,      0.00) DC      NA
                     5TH HIGHEST VALUE IS      0.00439 AT (  565700.06,  4191711.25,    108.20,      0.00) DC      NA
                     6TH HIGHEST VALUE IS      0.00347 AT (  565009.00,  4192130.00,    110.64,      0.00) DC      NA
                     7TH HIGHEST VALUE IS      0.00289 AT (  564926.69,  4192158.75,    109.42,      0.00) DC      NA
                     8TH HIGHEST VALUE IS      0.00202 AT (  566093.38,  4191024.75,    114.60,      0.00) DC      NA
                     9TH HIGHEST VALUE IS      0.00202 AT (  564945.62,  4192065.50,    102.72,      0.00) DC      NA
                    10TH HIGHEST VALUE IS      0.00171 AT (  564735.81,  4192658.00,    100.28,      0.00) DC      NA



                              *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***


                          ** CONC OF CHRONIC  IN MICROGRAMS/M**3                        **

                                                                                                       NETWORK
GROUP ID                            AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZFLAG)   OF TYPE GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


NEWENG    1ST HIGHEST VALUE IS      0.00013 AT (  565009.00,  4192130.00,    110.64,      0.00) DC      NA
          2ND HIGHEST VALUE IS      0.00013 AT (  564945.62,  4192065.50,    102.72,      0.00) DC      NA
          3RD HIGHEST VALUE IS      0.00012 AT (  565700.06,  4191711.25,    109.42,      0.00) DC      NA
          4TH HIGHEST VALUE IS      0.00012 AT (  565700.06,  4191711.25,    108.20,      0.00) DC      NA
          5TH HIGHEST VALUE IS      0.00011 AT (  564926.69,  4192158.75,    109.42,      0.00) DC      NA
          6TH HIGHEST VALUE IS      0.00008 AT (  566093.38,  4191024.75,    114.60,      0.00) DC      NA
          7TH HIGHEST VALUE IS      0.00006 AT (  566166.56,  4190836.25,    107.59,      0.00) DC      NA
          8TH HIGHEST VALUE IS      0.00006 AT (  565144.62,  4192620.50,    154.84,      0.00) DC      NA
          9TH HIGHEST VALUE IS      0.00006 AT (  566063.25,  4190799.75,    101.19,      0.00) DC      NA
         10TH HIGHEST VALUE IS      0.00005 AT (  564735.81,  4192658.00,    100.28,      0.00) DC      NA
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[1] Bay Area Air Quality Management District (BAAQMD), *Bay Area 2000 Clean Air Plan and Triennial Assessment,* Bay Area Air Quality Management District, Adopted December 20, 2000.

[2] EPA, *Federal Register, 62 FR 38856.* U.S. Environmental Protection Agency, July 18, 1997; EPA, *Federal Register, 62 FR 3865,* U.S. Environmental Protection Agency, July 18, 1997.

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[10] URS Corporation, *Central Campus Human Health Risk Assessment,* Prepared for UC Berkeley Physical and Environmental Planning, June 28, 2000.

[11] BAAQMD, *Toxic Air Contaminant Control Program Annual Report: 2001.* Bay Area Air Quality Management District, July, 2003, page 10.

[12] BAAQMD, *Toxic Air Contaminant Control Program Annual Report: 2001.* Bay Area Air Quality Management District, July, 2003, Appendix C-1, page C-1-3.

[13] National Cancer Institute, *Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2000,* National Institutes of Health. Bethesda, MD, 2003, Table I-15, http://www.seer.cancer.gov/crs/1975_2000/sections.html

[14] MMBtu/hr = million British thermal units per hour

[15] Note that the June 28, 2000 HRA included Calvin and Donner labs. In the 2003 re-run, these have been removed since they will be included in Lawrence Berkeley National Laboratories' LRDP analysis.

[16] Decision Focus, *Stanford Biology Chemistry Quadrangle Project: Final Internal Report*, prepared for Stanford University, Facilities Project Management, Ambient Air Working Group, Document DFI No. 1798, March 1989, Attachment 1-K.

[17] Note that the emission factors presented in Table 1 have been updated since the June 28, 2000 HRA because calculation errors were subsequently identified. The effect on the calculated health risk values were minimal; however, the updated calculations are reflected in the updated baseline HRA and 2020 LRDP HRA prepared to support the 2020 LRDP EIR.

[18] URS Corporation, *Air Toxics Health Risk Assessment for the University of California Davis 2003 Long Range Development Plan*, April 2003, page 3-3.

[19] EPA, *Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources.* 1995 et seq.

[20] M.H. Chew and Associates, *Health Impact Analysis for the Environment, Health and Safety Facility,* May 6, 1994, page 4-5 through 4-10.

[21] CARB, *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines,* October 2000.

[24] California Office of Environmental Health Hazard Assessment (OEHHA), http://www.oehha.ca.gov/air/hot_spots/index.html, downloaded on February 6, 2004.

[26] California Air Pollution Control Officers Association (CAPCOA). *Air Toxics "Hot Spots" Program Revised 1992 Risk Assessment Guidelines,* October 1993, Table III-5, III-6, III-8, III-10.

[27] URS Corporation, *Air Toxics Health Risk Assessment for the University of California Davis 2003 Long Range Development Plan*, April 2003, Table 3-4.

[28] Note that in the 2003 HRA re-run when diesel-fired emergency generators were included, the OEHHA convention is to calculate inhalation health risks only for DPM. Thus, DPM does not enter into the non-inhalation pathway calculations.

[29] Since the production of the June 28, 2000 HRA, the California Office of Environmental Health Hazard Assessment (OEHHA) published *Air Toxics Hot Spots Program Risk Assessment Guidelines, Part IV: Technical Support Document for Exposure Assessment and Stochastic Analysis* (OEHHA 2000). The exposure algorithms addressed in this guidance for the single point approach used in the UCB HRA analyses are virtually identical to those in the CAPCOA 1993 Guidelines.

[30] UC Berkeley, *Northeast Quadrant Science and Safety Projects and 1990 Long Range Development Plan Amendment*, June 2001, page 3.7-16.

[32] CARB, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking: Airborne Toxic Control Measure for Stationary Compression-Ignition Engines*, Stationary Source Division, Emissions Assessment Branch. September 2003, page 60, Table V-2.

CULTURAL RESOURCES

TABLE OF CONTENTS

APPENDIX D.1
CULTURAL RESOURCE HISTORIES

This appendix contains written histories for resources owned by the University in each of the following land use zones: Campus Park, Adjacent Blocks North, Adjacent Blocks West, Adjacent Blocks South, the Southside, Hill Campus and the LRDP Housing Zone. The numbered resources profiled below correspond to the numbered resources listed in Chapter 4.4. After the resource name is listed the architect and the construction dates. This primary source of information was the City of Berkeley Designated Landmarks and Structures of Merit list revised on February 5, 2003. The secondary sources of information are the State Inventory and Harvey Helfand's book *University of California, Berkeley*. This appendix contains histories drawn mainly from three sources: Harvey Helfand's *University of California, Berkeley*; Susan Cerny's *Berkeley Landmarks: An Illustrated Guide to Berkeley, California's Architectural Heritage*; and the internet.

4.12.1 CAMPUS PARK

HISTORIES OF PRIMARY RESOURCES

1. Founders' Rock. Prehistoric Natural Landscape Feature. In 1860, the Trustees of the College of California (the predecessor the University of California, Berkeley) and three other men gathered at what would become to be known as Founders Rock and dedicated the future site of the campus. In 1896, the Class of 1896 placed a plaque on the rock to memorialize the 1860 event.[1]

2. South Hall. David Farquharson, 1872-1903. South Hall is significant because it was the first building to be built on the Campus Park and the first building constructed by the University of California. It was originally named the College of Agriculture and housed laboratories for agriculture and the physical and natural sciences, the library, and the office of the Secretary of the Regents. The four-story brick hall was built in the Second Empire style with a slate mansard roof topped with ornamental cast-iron cresting. Early examples of seismic fittings are the cast-iron pilasters on the building's corners that secure iron reinforcement bars that penetrate through the brick masonry walls.[2]

3. The Faculty Club and Glade. Bernard Maybeck, 1899-1903. Bernard Maybeck designed the first part of the Faculty Club, what is now the Great Hall, a steep-gabled Gothic hall constructed out of rough-sawn dark stained redwood with a monumental fireplace. Opened in 1903, the Club has since undergone several renovations and additions. The adjacent Faculty Glade is an important historic and picturesque open space on the Core Campus, serving as a setting for University ceremonies, gatherings, recreation and study. Evidence of Native American use has been found in the Faculty Glade area. [3]

4. California Hall. John Galen Howard, 1903-1905. This steel-frame building is clad in Raymond granite, topped with a red-tiled roof and copper skylight, and has wood casement windows. The building was the second academic structure begun under the Phoebe Apperson Hearst Architectural Plan and the first completed. The building originally housed a large lecture hall, classrooms and other academic functions, with offices for the President, Regents, and Deans on the second floor. In 1960 the lecture room was removed and converted to offices and the interior was modernized. [4]

5. North Gate Hall. John Galen Howard, 1906. Originally the home of the Department of Architecture, North Gate Hall now accommodates the Graduate School of Journalism. John Galen Howard designed the building in a rustic shingle style, blending in with the adjacent Northside neighborhood. The one- to two-story structure has small balconies, square-paned wood casement windows, a hipped roof with dormers, and exposed framing on the interior. For additions and renovations have expanded and altered the structure.[5]

6. Senior Hall. John Galen Howard, 1906. This redwood log hall was designed to provide meeting space for the men of the Senior Class and the Order of the Golden Bear, originally a senior men's honor society and currently a student led organization which includes faculty, administrators, staff, and alumni in its discussions of campus issues within a "framework of frankness, tolerance, and confidentiality." The rectangular structure contains two rooms, the larger front room for gatherings and a smaller back room originally used exclusively by the Order; the rooms are served by clinker brick fireplaces. The Hall was saved from demolition in 1973 and partially renovated in the early 1980s.[6]

7. Hearst Memorial Mining Building. John Galen Howard, 1901-1909. This building was constructed to house a large mining laboratory, metallurgical and research labs, drafting rooms, a crushing tower, smelting shops, mills and support spaces. The exterior is a blend of Beaux-Arts classicism and California vernacular. Raymond granite facades are topped with roofs of red mission tile with copper-framed skylights. The main interior vestibule is a three-story high space with slender iron columns supporting open perimeter galleries. Three domed skylights supported by Gustavino tile pendentives evoke the Bibliotheque Nationale in Paris.[7]

8. Sather Gate and Bridge. John Galen Howard, 1908-1910. Standing at the original southern edge of the Berkeley campus, this Beaux Arts ensemble serves as both a functional and symbolic entrance across Strawberry Creek into the Core Campus. French Baroque and other neo-classical motifs combine in the granite and bronze gateway with four piers topped with marble sculptural reliefs and glass globe lamps. Flanking neo-classical granite balustrades and urns define the gate approaches and bridge. The area immediately south of the Gate once functioned as a site for political rallies and speakers, a function now shifted further south to the center of Sproul Plaza.[8]

9. Girton Hall. Julia Morgan, 1911. Girton Hall is the only building designed on the campus solely by Julia Morgan. It served as a meeting and informal gathering place for the senior class women, and now houses a childcare center. The hall is symmetrical in plan (influenced by Beaux-Arts ideas) but the sheathed redwood clapboard and shingled exterior is typical of the First Bay Region style. The interior meeting room has exposed redwood roof trusses and wall framing and the large brick fireplace has a rounded-arch opening. The hipped roof has large eaves that provide shading for the banded large casement windows. Originally sited next to Strawberry Creek, the building was relocated in 1946 to make room for Lewis Hall.[9]

10. University House. Albert Pissis, 1911. Originally designed to be the home of the President, University House now serves as official residence for the Chancellor. The building is the only one that conforms to Emile Benard's 1900 Master Plan. Built in the style of a country Italian villa, the symmetrical exterior is faced with sandstone and topped with a mission-tile hipped roof. The portico entrance, a triple-arched colonnade, fills out the recessed central bay. Many distinguished guests have visited University House, including Presidents Truman and Kennedy, and royalty and politicians from Morocco, Iran, Greece, Nepal, France, India, Canada, Germany, Pakistan and the Netherlands.[10]

11. Wellman Hall. John Galen Howard, 1912. Originally called Agriculture Hall, this was the first building in the Agriculture Group, now consisting of Wellman, Hilgard, and Giannini Halls. The group was arranged on a knoll originally occupied by growing grounds of the College of Agriculture, and surrounded by plantings intended by John Galen Howard to resemble an idealized farm in the Tuscan countryside. The steel frame structure is faced with granite and covered with a red tile roof with a copper-framed skylight. The most prominent feature of the building is the large apse on the south façade, arranged symmetrically with the Valley Life Sciences Building across the Central Glade. The apse originally contained a semi-circular lecture hall and museum display space.[11]

12. Durant Hall (Former Boalt Hall). John Galen Howard, 1908-1911. Durant Hall is a three-level steel-frame and concrete structure with a granite façade. Tuscan pilasters differentiate the center bay and the windows are double-hung, representing a departure from the French casement window so prominent in previous structures on campus. The Hall was built to accommodate the School of Jurisprudence, but now houses the Department of East Asian Languages. The former Lawyers Memorial Hall now houses the East Asian Library. When the new law building was built in 1951, the building was renamed Durant Hall from Boalt Hall in honor of the University's first president.[12]

13. Naval Architecture / Drawing Building. John Galen Howard, 1914. The Naval Architecture building first housed drawing classes in tall north-lit studios. Because the building would front the neighboring residential area, John Galen Howard designed it in the same style as his adjacent North Gate Hall, the vernacular Bay Area Tradition, with gabled roofs, shingled exteriors and Craftsman-style entrances. The building has survived numerous programmatic changes, with only one original interior studio room left intact today.[13] A portion of the building was demolished to allow for construction of Davis Hall in the early 1930s.

14. Doe Memorial Library. John Galen Howard, 1907-1917. The original Greco-Roman building remains the "physical and intellectual heart of the campus" with its Main Reading Room with its 45-foot, coffered elliptical barrel-vaulted ceiling and equally ornate Reference Room. A granite exterior, tile roofs, copper skylights, and neo-classical columns define the exterior. Enlarged in several stages, the building is the most prominent of John Galen Howard's academic facilities in the Campus Core. [14]

15. Sather Tower (Campanile) and Esplanade. John Galen Howard, 1913-1917. The approximately 307-foot high tower designed by John Galen Howard is an enduring icon of the University and a "lodestone for student pride and affection." Inspired by the San Marco Campanile in Venice, the granite-faced tower is constructed with a steel frame and reinforced concrete walls, floors, and roof. The Campanile Esplanade serves as a podium for the tower and also emphasizes a north-south cross-axis through the campus. The Esplanade is formally arranged with lawn panels, brick walkways, symmetrical staircases, six rows of pollarded London plane trees, and formal plantings at the corners of the Tower. [15]

16. Wheeler Hall. John Galen Howard, 1915-1917. Planned to house classrooms, faculty offices, and what was the University's largest lecture hall, this neo-classical building is prominently sited between Doe Library and Sather Gate. The primary south façade is faced in Raymond granite and displays two-story ionic columns on top of a rusticated arched base punctured by seven arched doorways. The attic level is adorned with "urn shaped lamps (that) symbolize the light of learning." A stone terrace and stairs run along much of the width of the south façade and have been a traditional gathering and meeting place for generations of students. [16]

17. Gilman Hall, Room 307. John Galen Howard, 1917. Room 307 is listed a National Landmark because it was where Glenn T. Seaborg and Edwin M. McMillan discovered the element Plutonium-238, which made possible the development of atomic explosives and nuclear energy reactors. The two researchers were awarded the Nobel Chemistry Prize in 1951. This room is also listed as a National Historic Chemistry Landmark.[17]

18. Hilgard Hall. John Galen Howard, 1916-1918. This hall is the second building built of the Agriculture Group. Although asymmetrical in plan, the west façade is a perfectly symmetrical neoclassical design with two-story engaged Doric columns. Due to budgetary constraints, concrete was substituted for granite and the details were crafted out of plaster in a Renaissance technique called sgraffito in which a cameo effect is achieved by scratching through overlaid coats of contrasting plaster. The hall now houses offices and labs of the College of Natural Resources.[18]

19. Haviland Hall. John Galen Howard, 1923. The hall first housed the School of Education and now serves the School of Social Welfare and School of Public Health. It was sited on axis with California Hall; however, this relationship was compromised by the erection of the Moffitt Library to the south. The neoclassical building is constructed out of steel and concrete with a red tile roof and a large copper skylight and the exterior is decorated with cast concrete ornamentation. The first campus branch library for the School of Education was housed on the second floor. After years of programmatic and spatial changes, the library was restored to its original state in 1986.[19]

20. Hearst Gymnasium for Women. Bernard Maybeck and Julia Morgan, 1927. The gymnasium – funded by William Randolph Hearst – was built to honor his mother, Phoebe, and her role as a major benefactor and regent of the University. Due to budgetary constraints, the gymnasium was the only part built of a much more ambitious plan for an extensive complex that was to include an auditorium-rotunda and a barrel-vaulted museum. Bernard Maybeck designed the exterior for the Gymnasium and Julia Morgan designed and programmed the interiors, and also oversaw the construction phase. The building is neoclassical in style and monumental in scale with large columns, windows and balustrades, projecting pavilions and large urns (replicas of the original). The gymnasium contains pools, gymnasia, support spaces and the Department of Human Biodynamics and the ROTC headquarters.[20]

21. Giannini Hall. William Charles Hays, 1930. This hall was the last to be completed of the Agriculture Group and was designed by William C. Hays, a faculty colleague of John Galen Howard. The building footprint is symmetrical with that of Hilgard Hall, but the main entrance is placed on the chamfered southeast corner. The neoclassical design is accented with modern elements, such as the Regency style travertine entry; the interior Art Deco lobby is one of the best examples of the style in the Bay area. The building currently houses the College of Natural Resources and the Electron Microscope Laboratory.[21]

22. Edwards Stadium. Warren Perry and Stafford Jory, 1932. At the time when the stadium was built, it was the largest and most expensive facility in the United States constructed exclusively for track and field events. The track is flanked by concrete stepped bleachers, under which is an open public concourse. The stadium was built in the Moderne style and accented with extensive geometrical cast-in-place concrete details. There have been numerous world records set in this stadium; it has been renovated to accommodate an intercollegiate soccer field.[22]

23. First Unitarian Church / UC Dance Studio. Albert Schweinfurth, 1898. This church is an excellent example of the Arts and Crafts movement or Bay Area Shingle style. It is one of the few non-residential examples of this style, with its rustic post-and-beam construction and handcrafted details. Large redwood pillars with the bark still intact support recessed entry eaves and a 12-foot diameter amber glass window set in an industrial metal frame is symmetrically placed on the west façade. The building is currently used by the Theater Arts Program.[23]

HISTORIES OF SECONDARY RESOURCES

1. Students Observatory, Observatory Hill, Leuschner Observatory. Clinton Day, 1885. In 1972, the nine buildings that housed the Leuschner Observatory were torn down except for portions of two structures. The first structure on this site was an observatory for students, hence one of the site's many names.[24] One of the first seismographic stations in the western hemisphere was also located on the hill.

2. Warren Cheney House. Warren Cheney, 1885. This wood-framed house was built as a residence by editor and developer Warren Cheney and housed several individuals important in local and US history. It has Eastlake-style characteristics, like the gabled pediment that overhangs the west entrance and a decorative facade consisting of scalloped shingles, board siding and detailed latticework. It is a rare survivor of southeast Berkeley's early private residences, and is now used as offices for the University.[25]

3. Cupola from Giauque Lab. Clinton Day, 1891. The wooden cupola is the only surviving remnant of the 1890s Chemistry Building, a large brick Dutch-Gothic structure which once stood where Hildebrand Hall is now located. The old building was demolished in the 1960s, but the cupola was saved and installed on the plaza between Gilman and Hildebrand. [26] It is one of only three surviving fragments of 19th century academic facilities on the campus (the others being South Hall and portions of the Students' Observatory).

4. Tilden or Phelan Football Statue. Douglas Tilden, 1889. Formally titled "The Football Players", this is the first permanent outdoor sculpture placed on the campus. Created by Douglas Tilden, it was a gift of San Francisco Mayor James Duval Phelan, who offered the statue in 1898 as a prize to the next school, California or Stanford, to win two consecutive Big Games. California won in 1898 and 1899 and secured the trophy, which was installed at its current location in early 1900. [27]

5. Warren Cheney House. Carl Ericson, 1902. This house was built by Warren Cheney as income property. It was designed with Stick and Chalet styles in mind, with bracketed overhangs, projecting bays, and expressed framing. Like the other Warren Cheney House, it is now used as office space.[28]

6. Old Power House. John Galen Howard, 1904. The Old Power House designed by John Galen Howard, produced power for the University for over thirty years before being converted to the University Art Gallery who then vacated the space in 1970. The brick structure is Romanesque in style with round arched openings and brick corbels detailing the crowns of the inset panels. The mission-tile gabled roof is crowned with a copper-framed sky-light. The current use of the building is for storage and various campus police and financial aid activities. [29]

7. Charles E. Bancroft House. Fred D. Voorhees, 1908. This English Tudor house was designed for the brother of Hubert Howe Bancroft. In the 1870s, the immediate surrounding area was an exclusive residential area for professors and businessmen. However, during the 1920s, the houses gave way to larger University buildings, leaving only a handful of residential buildings along Piedmont. Although the interior has been subdivided into offices, much of the interior detailing still remains.[30]

8. Professor Charles A. Noble House. William Knowles, 1908. Built in the mission revival style, this house was designed for Charles Noble, a University mathematics professor. The design is symmetrical with a recessed entry marked by Tuscan columns. The building is currently used by the Anthropology and Demography Departments.[31]

9. Walter Y. Kellogg House. Julia Morgan & Ira Hoover, 1908. Walter Y. Kellogg, the manager of the California Door Company, commissioned this English half-timber house from Julia Morgan and her junior partner, Ira Hoover. Characteristic of Morgan's other work was a side entrance that allowed the living room to span the entire width of the house. Kellogg's daughter and son-in-law, Judge William Olney, later inhabited the house. It is now used by the Department of Demography.[32]

10. Dr. B.P. Wall House. William C. Hayes, 1909. Built in the shingle style, the exterior detailing of this house is unique that the shingles alternate horizontally between wide and narrow strips. This house was originally located on the other side of Piedmont but was moved to its current location to allow for the construction of International House. The house, originally built for the well-known Berkeley physician Dr. Wall, is now occupied by the Berkeley Roundtable on the International Economy.[33]

11. Zeta Psi. Charles Peter Weeks, 1910. This building is the former residence of the Zeta Psi fraternity, the first fraternity established west of the Mississippi. The house is a three-story Second Empire structure with a mansard red-tile hipped roof. The recently restored building is currently home to the Archaeological Research Facility.[34]

12. Class of 1910 Bridge. John Bakewell, Jr. and Arthur Brown, Jr., 1910. This arched classical bridge was given to the University by the Class of 1910 and designed by prominent Bay Area architects Bakewell and Brown. It serves as a northeast portal of the Faculty Club and crosses Strawberry Creek.[35]

13. Class of 1877 Sundial. Clinton Day, 1915. Located on the Sather Esplanade, this sundial sits atop a white marble pedestal on axis with the Campanile. Erected in 1915, it was donated by the Class of 1877 and later renovated by the Engineering Class of 1996.[36]

14. Lawson Adit. College of Mining, 1916-c.1938. Andrew C. Lawson, the dean of the College of Mining in 1916, decided that hands-on instruction in "drilling, drifting, blasting, timbering, and mine surveying" was necessary for the education of mining engineers. The adit served as the "classroom" for many students and by the late 1930s extended approximately 750 feet into the hillside.[37]

15. Stephens Memorial Union. John Galen Howard, 1922. Designed in the Tudor or Collegiate Gothic style, the Union was built to serve as a gathering place for students, alumni and faculty. It housed the student store, lunch room, and other activities. Made of concrete, the detailing of the building includes octagonal turrets, oriel windows and groups of chimneys. The vaulted entryway consists of three ribbed vaults and also leads to the Faculty Glade. The Union functions were moved to the King Student Union in 1962.[38]

16. Sigma Epsilon Fraternity. Gwynn Officer, 1923. This three-story English Tudor revival building is U-shaped in plan with a steeply pitched gable roof that house a large attic meeting hall. In 1943, the university acquired the building and in 1949, it was moved to its present location to make way for construction of the Law Building in 1949. It is currently used by the Program of the School of Law.[39]

17. Women's Faculty Club. John Galen Howard, 1923. The club was built by and for women faculty, professionals and university donors. It was designed in the First Bay Region style by John Galen Howard in order to complement adjacent buildings, including the Faculty Club and Senior Hall. The dark wood-shingled exterior is accented by a white entrance portico with Tuscan columns and a simple entablature and balustrade.[40]

18. Valley Life Sciences Building. George W. Kelham, 1928. Designed by George Kelham, when this structure was built, it was claimed to be "the largest and best equipped" academic building in the world. It housed thirteen departments and had over a mile of hallways. While it is situated axially on campus in the Beaux-Arts tradition, the style of the building is eclectic Moderne. The north and south façades are composed of closely spaced classical pilasters with steel-sash window infill and detailed with Egyptian and Babylonian inspired motifs.[41]

19. Harmon Gymnasium/Haas Pavilion. George W. Kelham, 1932. Harmon Gym is a concrete structure designed in the Moderne style with some neoclassical motifs. The east and west entrances consist of three bays each and are surmounted with six bas-relief Art Deco Greco-Roman athletic figures. In the late 1990s, the main gym was demolished and transformed into the Haas Pavilion, but the two entrances were preserved. Also saved was a barrel-vaulted tile-floored vestibule with oak panels and decorative chandeliers.[42]

20. Anthony Hall (Pelican Building). Joseph Esherick, 1956. Anthony Hall is listed in the State Inventory as the Pelican Building, its nickname. Its original use was as headquarters for the student humor magazine. It is a one-story pavilion-like building made of post-and-beam construction. The modular redwood trusses, posts and wall panels are characteristic of the architect, Joseph Esherick, while the trellised pergolas are typical of Bernard Maybeck, who served as a consultant to the project. The gabled roof is red tile and the exterior walls are rose-colored stucco.[43] The exterior viewpoints reveal Pelican motifs.

21. Sproul Plaza. Hardison and DeMars with Lawrence Halprin, 1959. The plaza was developed at same time as the first buildings of the California Student Center. The former Telegraph Avenue right-of-way was converted to a pollarded London plane tree-lined promenade centered on a brick plaza with a circular fountain. During the 1960s, the plaza was the setting for many student demonstrations and rallies, including the famous Free Speech Movement speech by Mario Savio in December of 1964.[44]

22. Wurster Hall. Demars, Esherick and Olsen, 1964. Wurster Hall is home to the College of Environmental Design. It is a concrete structure built in the Brutalist modernist aesthetic. The design is U-shaped with a large east courtyard. A three-story base serves as the podium for a ten-story tower that houses student studios and a seminar room at the top.[45]

LANDSCAPE FEATURES

Various landscape features have been designated by the City of Berkeley as city landmarks. All of them were given status at the same time on November 4, 1996.

23. Willey Redwood. This coastal redwood is significant due to its age – being planted before 1870 – and its namesake, Reverend Samuel Willey, who helped found the College of California, the institution that donated the land on which the University of California is currently located.[46]

24. Eucalyptus Grove. The grove consists of Tasmanian blue gum eucalyptuses some rising 200 feet high. Planted in 1877, they are some of the oldest in California. These trees are also listed on the State Inventory, but not as an historic resource.[47]

25. Dawn Redwoods. It is highly likely that the oldest of these redwoods was planted in 1961 by Professor Ralph Chaney who gathered the seeds for this species while on a trip to China. At one time considered extinct, the dawn redwood was known in fossils before the species was "rediscovered" in China. The trees are planted in front of Earth Sciences/McCone Hall, once the home of the Department of Paleontology in which Professor Chaney taught. [48] [49]

26. Campanile Esplanade (London Plane Trees). These trees are cited in the Multiple Resource Area designation under the Sather Tower (Campanile) and Esplanade, and also designated a city landmark. The London plane trees were re-located from San Francisco's Panama Pacific International Exposition and are most likely the best-preserved landscape feature on campus of the Beaux Arts style.[50]

27. Melaleuca Copse. Also known as Australian swamp paperbark trees, these trees were planted around 1895 and were associated with the nearby Botanical Garden which has since been removed. In 1906, the trees were cut down but the stumps were left in place to grow again into full trees.[51]

28. California Buckeye Tree (*Aesculus californica*). This tree is located near the Class of 1910 Bridge and has been on the campus at least since 1882.[52]

4.12.2 ADJACENT BLOCKS NORTH

HISTORIES OF PRIMARY RESOURCES

GAYLEY ROAD

1. Bowles Hall. George Kelham, 1928. Bowles Hall is a Collegiate-Gothic or Tudor manor men's residence hall inspired by the dormitories at Princeton University. This was the University of California's first residence hall. The reinforced-concrete structure consists of three wings with steep gabled tiled roofs and a crenellated tower at the northwest corner. The interior entry is paneled with stained oak and has a carved oak staircase. There is also a two-story lounge with ornamental pilasters, beams and cornices, chandeliers, and a marble fireplace. The residents are called "Bowlesmen," with a famous former resident being Justice Wakefield Taylor. [53]

LE ROY AVENUE

1. Cloyne Court. John Galen Howard, 1904. An example of the First Bay Tradition, this building is detailed with shingle siding, hipped roofs, projecting bays, balconies and trellises. The symmetrical layout, however, is Beaux-Arts inspired. The building was built as a "high class modern apartment house" for primarily faculty and graduate students, but is now used as a co-op dormitory.[54]

STADIUM WAY

1. Hearst Greek Theatre. John Galen Howard, 1903. The Hearst Greek Theatre is a part of the 1982 Multiple Resource Area listing. The theatre was built on the former site of a natural amphitheatre used by students for various outdoor events. It was modeled after the Greek theater at Epidauros with some modification and was one of the first outdoor theaters in the United States. The stage is 40 feet high, 135 feet long and is decorated with a row of attached Doric columns and entablature. Many famous people have spoken and performed at the Theatre, including President Theodore Roosevelt, Sarah Bernhardt, and Robert Frost. It is still used today for recitals, operas, lectures, meetings, observances and bonfire rallies.[55]

HISTORIES OF SECONDARY RESOURCES

HEARST AVENUE

1. Stern Hall, Corbett & MacMurray and William W. Wurster, with John W. Gregg and Isabella Worn, landscape design, 1941-1942. Stern Hall was the first women's dormitory in the UC system. It is a combination of modern and Bay Tradition styles, with a wood-textured concrete façade and glass-enclosed staircases. The interiors were decorated in bold colors and modern furniture as well as a Diego Rivera fresco, *Still Life and Blossoming Almond Trees*. There have been two additions to the building, one in 1959 and another in 1980.[56]

5. Goldman School of Public Policy / Beta Theta Pi House. Ernest Coxhead, 1893. Built originally for the Richard and Rhoda Goldman Beta Theta Pi fraternity and designed by Ernest Coxhead, with additions by Bakewell and Brown, this structure now houses the Goldman School of Public Policy. It is English Tudor in style and is an important example of the First Bay Tradition, with wood shingles, stucco, half-timbers, and brick.[57]

4.12.3 ADJACENT BLOCKS WEST

HISTORIES OF SECONDARY RESOURCES

BERKELEY WAY

1. Richfield Oil Company/ University Garage. Walter Ratcliff, Jr., 1930. Built in the Mediterranean style with Moorish influences, this picturesque oil station built for the Richfield Oil Company, is faced with brick and plaster, detailed with both round and pointed arches and is topped with a tile roof. It is currently owned by the University and is called the University Garage.[58]

OXFORD STREET

1. UC Press, University Printing Department. Masten & Hurd, 1939. This concrete Moderne building was funded in part by the Work Projects Administration and was designed by Masten & Hurd. It consists of a three-story office block and a one-story wing that houses the printing operations.[59] The University of California Press was once housed in the building.

WALNUT STREET

1. Three Brown Shingle Houses on Walnut Street. Unknown, 1905. Although these three houses were inventoried together, only the house located at 1925 Walnut Street is owned by the University. These three houses are the only remaining structures of residential character in the downtown area. All three are representative of the brown shingle style, with shingles on all the vertical surfaces of the exterior, hipped roofs with dormers, projecting window bays and raised entry porches. [60]

4.12.4 ADJACENT BLOCKS SOUTH

HISTORIES OF SECONDARY RESOURCES

BANCROFT WAY

6. University Art Museum. Mario J. Ciampi, 1968. Although this building is currently called the "University of California, Berkeley Art Museum and Pacific Film Archive," it is listed in the State Inventory under its former name, the "University Art Museum." Made of exposed concrete, this structure is considered "neo-brutalist" in style and is one of the largest and most prominent modern-era buildings constructed in Berkeley. There are galleries on multiple levels and large skylights that allow light to descend into the various galleries.[61]

PIEDMONT AVENUE

1. International House. George W. Kelham, 1928. Designed by George Kelham, International House is one of three facilities in the country funded by the Rockefeller family to provide housing for both foreign and American students and promote international and intercultural understanding. The building is a Mission-Spanish Colonial inspired structure with concrete exterior, red tile roofs, and a domed tower stepped back nine stories above the façade. [62]

2. California Memorial Stadium. John Galen Howard, 1923. Completed in 1923 as a venue for the California Golden Bears football team, the Stadium currently has approximately 60,000 seats and was designed as a combination of earthen bowl and elevated arcade. The concrete exterior was designed to resemble a Roman coliseum. Besides serving athletic uses, the Stadium has served as a venue for University ceremonies including Commencement. President John. F. Kennedy and other notables have appeared there. [63]

4.12.5 SOUTHSIDE

HISTORIES OF PRIMARY RESOURCES

BOWDITCH STREET

1. Anna Head School for Girls. Soule Edgar Fisher and Walter Ratcliff, Jr., 1892-1927. Although this complex of Arts and Crafts buildings is now owned by the University, it was built for the Anna Head School which operated there for 72 years, starting in 1892. The 14 buildings were built within the span of the school's first 35 years by various architects, creating the largest planned ensemble of early shingle buildings in the Bay Area.[64] The central quadrangle has since been converted into a parking lot and the buildings now house university offices, a day-care center and various research centers.[65]

PIEDMONT AVENUE

1. Clark Kerr Campus (formerly the California Schools for the Deaf and Blind). State Architects, 1914-1959. The State institution for the deaf and blind relocated from San Francisco to this site in the 1860s, predating the University. All the early buildings except one 1915 structure have since been destroyed, although the perimeter wall is constructed of stones salvaged from the first building on this site. The current buildings were constructed from the 1920s through the 1950s grouped around garden courtyards; they range from Mission Revival to Moderne and early Modern in character and style. Most are of reinforced concrete with board form detailing, and tile roofs. In the 1980s the Deaf and Blind Schools were relocated to new campuses in Fremont and the University acquired the property; it is now used primarily for student and faculty housing, and recreation. [66]

HISTORIES OF SECONDARY RESOURCES

BOWDITCH STREET

2. Fox Cottage / Rose Berteaux House. Carl Fox, 1930. Built by Carl Fox who designed several similar "storybook" residences in Berkeley. The brick structure with wavy window mullions and intentionally uneven roof was moved from its original location on the south side of Channing just east of Bowditch to its current site in 2001 to clear the site for the Central Dining Facility. [67]

3. People's Park. Open Space, 1969. Originally a block of single-family homes and small apartment buildings at the edge of the Telegraph Avenue commercial district, this site was cleared in the 1960s to provide a location for University residence halls. Construction was delayed and the lot was left largely vacant. In Spring, 1969, a community effort resulted in the construction of an impromptu park. The University's construction of a perimeter fence on May, 15, 1969, led to demonstrations and rioting, part of a pivotal era of confrontation and political and social ferment in both community and University history. The Park has since undergone several eras of use, including the addition of active recreation facilities, and was for a time jointly managed by the City of Berkeley and the University. [68]

DURANT AVENUE

11. U.C. Berkeley Unit 1. John Carl Warneke, Lawrence Halprin & William Wilson Wurster, 1957-1959. Both Unit 1 and Unit 2 (on Haste Street) are residential dormitory towers completed according to the principles of mid-twentieth century modern urban planning. Each Unit consists of four multi-story buildings that face inward overlooking a Japanese-inspired dining pavilion. The landscaping, completed by Lawrence Halprin, consists of vine-covered stone walls and trellises. The stylistic juxtaposition between the modern buildings and the rustic landscaping are clearly brought to light in the dining pavilions where the large glass walls provide ample view to the gardens. [69]

DWIGHT WAY

3. McKinley Elms. No architect, 1903 dedicated. These English Elms were planted and dedicated to mark the entrance to the McKinley School, designed in 1896 by the Cunningham Brothers in a Colonial style with two Mission Revival towers. Even though the building was demolished circa 1970, the elms remained and now frame the entrance to the William J. Davis Park, in honor of the YMCA and University counselor. [70]

FULTON STREET

2. University Extension, Federal Land Bank. James W. Plachek, 1922. Michael Goodman, 1949. This building is unique in that Plachek's classical building – the Federal Land Bank – built in 1922 was completely renovated beyond recognition by Goodman in the late 1940s. The original 2 ½ story white bank with large fluted Ionic columns was purchased by the California Farm Bureau Federation and was modified into a 5 ½ story stuccoed concrete building with a large protruding center section, aluminum windows, and a salmon pink – turquoise color scheme. [71]

HASTE STREET

5. The Woolley House. Unknown, 1876. From 1876 until 1993, when the University bought the house, this building was used as a private residence. It is a one-story Italianate Victorian with a raised basement and shallow portico flanked by tall double-hung windows. The arched front door has a molded glass transom in a floral design. It is one of the few original Victorian-era homes surviving in this neighborhood.[72]

7. U.C. Berkeley Unit 2. John Carl Warneke, Lawrence Halprin & William Wilson Wurster, 1957-1959. See description under "Durant Avenue" above.

4.12.6 HILL CAMPUS

HISTORIES OF SECONDARY RESOURCES

1. Charter Hill and the Big C. Classes of 1907 and 1908, 1905. In the late nineteenth century, on the eve of Charter Day, the university's anniversary, freshman students would try to mark their class numerals on this slope while the sophomores would in turn try to prevent them from doing so. The fighting that ensued led the University to ban the tradition in 1903 and in its place, a large reinforced concrete "C", 60 by 26 feet in dimension, was built by the freshman and sophomore classes of 1907 and 1908 in order to represent a "truce". The "C" was the first feature of its type built on a western American hillside and remains an important spirit symbol of the University.[73]

2. Botanical Garden. John W. Gregg, landscape architect, with Thomas Harper Goodspeed, 1920-1926. The 34-acre Botanical Garden has one of the largest and diverse collections of plants in the country. It was designed by John W. Gregg with the aid of the garden director, Thomas Harper Goodspeed. They organized the plants by geographic origin in settings similar to the plants' native habitats. In 1936, a 5-acre grove of Coast redwood was planted in 1936 across Centennial Drive and was later added to the Garden.[74]

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2003 Archaeological Field Research at the

Conservatory/Observatory Hill Sites – Excerpted Report

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ABSTRACT

Archaeological test excavations were undertaken in the summer of 2003 at the University of California, Berkeley at the documented locations of the late 19th century Students' Observatory and the Agricultural Department's Conservatory structures. The purpose of the excavations was to retrieve information on the location and state of preservation of archaeological deposits that were known or anticipated to be present within the area that could be affected by construction of the proposed Chang-Lin Center for East Asian Studies (Tien Center.) Excavations were directed by members of the University of California, Berkeley Anthropology Department, and were conducted by undergraduate students.

The excavations revealed that the Students' Observatory location had been previously disturbed by past campus construction activities so that significant archaeological resources are not present. The Agricultural Department's Conservatory structure's foundation and associated materials were found, and based upon the excellent state of preservation observed in the accessible portion of the foundation, it is likely that preservation of the inaccessible portions of the structure are likewise intact.

Both the Observatory and Conservatory were built and used at an important period in the development of scientific disciplines and of the University of California as an institute of higher education. The Conservatory foundation and associated materials are recommended as eligible for listing in the National Register of Historic Places.

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SECTION I: THE PROJECT AREA

The project area is located in the north central portion of the University of California, Berkeley campus (Figure 1).

The purpose of the research and excavation was to retrieve information on the location and state of preservation of archaeological deposits that were known or anticipated to be present within the area that could be directly and indirectly impacted by construction of the proposed Chang-Lin Tien Center for East Asian Studies (Tien Center).
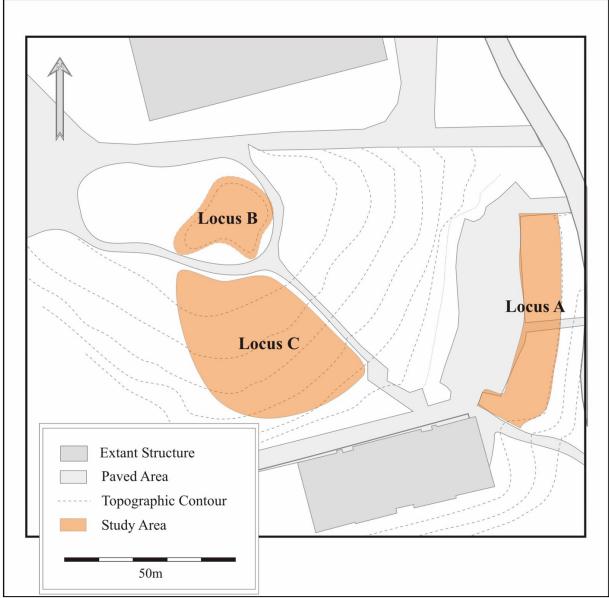
Figure 1.   Plan of Proposed Project Area with location of Archaeological Loci

A preliminary review of maps and documents housed in campus collections undertaken by Steven Finacom, campus planning analyst/historian, identified two areas that have a high likelihood of containing subsurface architectural remains and associated deposits that could be eligible for listing on the National Register of Historic Places.

The first area of investigation is designated Locus A (Figure 1). This corresponds to the location of the proposed Tien Center building footprint. This locus overlap with the known location of the campus conservatory building, constructed in the 1870s, which is depicted on campus maps dating 1897 and 1911. The building was demolished circa 1923-24. The most likely type of archaeological remains to be found in his area are subsurface foundations. The purpose of the archaeological testing was to determine if such foundations still remain and to document them.

The second area of investigation is designated Locus B (Figure 1), is not located within the proposed Tien Center building footprint, but could be impacted during construction activities. This area, located immediately to the north of the proposed building on what is known as "Observatory Hill", was the site of an astronomical observatory complex that was developed in the 1880s and stood intact on the site until the superstructure was largely demolished in the early 1970s. In addition to being associated with Berkeley's world renowned physics and astronomy programs, one of the structures in this complex also housed one of the two first seismographic station in the western hemisphere. Classes and research were conducted in and around these structures, which are well documented in maps and photographs. The previous use of the yard areas by students and faculty suggested to us that in this area there was a strong possibility of finding intact deposits associated with the historic use of the area.

Given the construction age of the buildings beginning in the 1870s and 1890s respectively, the observatory and conservatory complexes could be potentially significant under state and federal standards and guidelines. The intent of the archaeological research and testing is to provide an evaluation of the sites' potential significance.

In addition to these two known areas of occupation, the proposed Tien Center project could construct a second building adjacent to loci A and B. This location has been designated as Locus C, and is shown in Figure 1. While there are no known historical uses of this portion of the project area, we cannot rule out the possibility that archaeological remains exist there without subsurface testing.

Federal and state laws specify criteria that archaeological resources must meet to qualify for listing on the National Register of Historic Places or the State Register of Historical Resources. In addition to maintaining their archaeological integrity (be largely undisturbed), the most common criteria applied to archaeological sites is whether or not they have the potential to yield information important to the prehistory or history of the local area, California, or the nation. The information that can be derived from the archaeological deposit must be able to contribute to the understanding of significant historical time periods, themes or questions.

The archaeological materials that were likely present within the project area could potentially contribute to a number of different historical discourses. The following broad research questions were identified:

1. As early constructions on the Berkeley campus, how did these structures fit into the campus landscape design, and how did their use conform or depart from uses intended by designers?

2. What can we learn about the way the campus envisioned itself from the destruction of these buildings?

3. How do the archaeological materials illuminate the ways that buildings and the spaces around them were used by the campus community?

4. How does the use of these structures demonstrate how members of the University of California campus created social hierarchies among its members, as well as ways that communal identities were constructed?

Locus B, in particular, given the association of the observatory buildings with both the research and teaching missions of the university, was seen as having great potential for studying how a sense of academic community was fostered within one academic unit of the campus. Given the intellectual prominence of Berkeley and its academic units, and its position as the oldest University of California campus, the social history of academic departments in the university is historically relevant beyond this campus. It was to address the potential of these remains to answer important research questions that drove this research and is the focus of this report.

Research Design and Testing Strategy

The purpose of the excavations was to determine the nature of the archaeological resources associated with known structures as well as to test an area with no known resources. The excavation strategy for each locus was shaped by our current understanding of potential resources in each area. The nature of the excavations was also shaped by other campus needs. For instance, the excavation was coordinated with the Campus Landscape Architect and facilities to ensure that no damage was done to the landscape or infrastructure of this part of campus as a result of excavation. With one exception, where a three foot perimeter was maintained, excavations did not take place within a 6 foot distance of any tree that had been designated for preservation or relocation. With the exception of roots found to be associated with a no-longer extant tree, the excavators did not cut or remove any roots that had a 2 inch or larger circumference. The excavators did not affect any buried electrical lines, watering systems or plumbing, nor did we remove any of the asphalt that covers the majority of the footprint for the conservatory building.

All excavations were conducted by 35 University of California undergraduates enrolled in an archaeological field school under the direction of Laurie Wilkie, Associate Professor of Anthropology, and Stacy Kozakavich, Cheryl Smith and Sarah Gonzales, graduate students in anthropology.

To ensure consistent artifact recovery, all matrix was screened through ¼" mesh in mixed deposits, and 1/8" mesh in features and intact deposits. Excavation was primarily done in natural levels. When natural levels could not be discerned or were especially thick, we used arbitrary 10 cm levels. All excavations were documented, photographed and mapped. Excavations were conducted with shovel, trowel and brush. Soil samples for flotation were taken from one drainage pipe found associated with the conservatory building. All materials recovered have been processed and analyzed in the Historical Archaeology Laboratory of the Department of Anthropology using techniques and procedures widely employed in the discipline (e.g. Godden 1964; Jones and Sullivan 1989; Majewski and O'Brien 1987; Miller et al. 1991; Toulouse 1971.)

All materials excavated were cataloged by provenience, materials, and where possible, by form, contents, decoration, origin, and date and method of manufacture. For ceramic, glass, and metal vessels and containers, minimum number of vessel counts were tabulated. Since each of the structures was known to have had a significant brick component, it was decided not to curate brick and mortar, but to process it in the field. Brick fragments were sorted by size and where possible, dimensions were recorded. Mortar was also size sorted and counted in the field. Both brick and mortar were returned to the units from which they were recovered during backfilling. All other materials have been bagged and labeled according to their locus, unit and level proveniences. Glass and ceramic artifacts have been labeled with this information in India ink which has been coated with nail polish for later removal, if deemed necessary.

Below is a brief summary of the research conducted at each locus. The work done at Loci A and B will be developed further in a later chapter. Since no significant remains were recovered during testing a Locus C, this will be the only discussion of work in that area.

Locus A:

This part of the proposed project area is now predominately covered with a parking lot, which limited the area in which we could test. However, based upon a footprint of the conservatory drawn from a 1911 Sanborn map, we were confident that a significant portion of the conservatory's architectural footprint would be preserved in the undeveloped areas just to the south of the parking slab. Based upon a survey of other sites on campus, it appears that the university's practice prior to the 1980s when demolishing buildings was to leave the subsurface foundation intact while removing all superstructures to ground level. As a result, building footings are commonly preserved on the campus. We, therefore, expected to find subsurface footings, but not associated material culture. Using the Sanborn maps as a guide, a line of 50 cm shovel test pits was placed to attempt to locate evidence of the buildings' footings. Once part of the foundation was uncovered, units were placed to follow the foundation. Excavations

covering 62 square meters were completed at this locus, revealing the front extent of the building and recovering an abundance of architectural and artifactual data associated with the conservatory and its occupation.

Locus B:

This is the best documented area, but was also the most potentially complex, containing a number of different structures that were built at different times. As at Locus A, one meter square units were used to pin point foundation remains. This task was much easier than at Locus A, since foundations are still visible on the ground surface in some areas. By tracking the foundations, we hoped to pinpoint the exact location of buildings relative to one another and to determine the extent of preservation. Unlike the circumstances at Locus A, however, it was expected that intact artifact deposits could be preserved in the area. One meter square units were placed to study the use of spaces between and around buildings. Of particular importance was testing the "yard" area associated with the astronomical building complex, where an 1890 photograph shows students engaged in class-related activities. Clearly, this was an area of campus where research and teaching merged in one location. The observatory area clearly had the potential for use as a social as well as educational space, allowing for the development of intellectual camaraderie between fellow students and between faculty and students. The ability to coordinate research is essential in sciences like physics and astronomy, and by exploring the use of communal spaces, we were hoping to be able to derive insight into how this was achieved within a very prominent and influential department. We were encouraged because the 1890s photograph of the yard area clearly shows a granite survey pillar that still stands today. The height of the pillar relative to the persons standing next to it in the photograph shows that the past surface level was at a similar level to today. It was our hope that this circumstance would indicate that original deposits associated with the astronomy complex remained intact. What we quickly learned, once excavating, however, is that the entire area has been disturbed by previous major earthmoving activities which have removed much of the rear of the original astronomy building and obliterated evidence of most of the structures in the area. The earth that was removed does not appear to have been redeposited on the site, so a series of sand fill layers have been deposited over the years. Our excavations became focused upon locating what scant remains of structures still stood. A total area of 41.75 square meters was excavated in this locus. With a few notable exceptions, most of the materials recovered from these excavations date to after the removal of the astronomy buildings in the 1960s.

Locus C:

There were no known historical or archaeological resources in this area, however, this area corresponds to the footprint of the second building proposed to be constructed for the Tien Center and needed to have preliminary testing completed. We planned to use a multi-staged excavation plan, first testing the area with 50cm shovel test pits (STPs) to determine whether any significant cultural deposits were located in the area, and pending the outcome of that testing, to excavate meter square units in high density areas.

Results of Testing at Locus C

Access to parts of the project area was limited by slope and vegetation cover. We were able to lay out a 10 meter by 25 meter grid over the area, excavating STPs at five meter intervals (Figure 2). At this interval, we anticipated that we would pick up evidence of any significant deposits or previously unidentified structures. All shovel test pits were excavated to a point at which we were sure we had encountered sterile soil—typically at depths of 20-30cm. Materials were recovered from only 5 of the 18 STPs (Figure 2). Materials recovered from these units consisted primarily of flower pot fragments (presumably related to the activities at the conservatory) or from erosion down the slope from the observatory. The very small collection of glass from Locus C (39 fragments of colorless, green, aqua and yellow glass) provides little insight into activities in this area. One colorless rim fragment and one machine-made, threaded green rim fragment indicate at least two separate bottles.
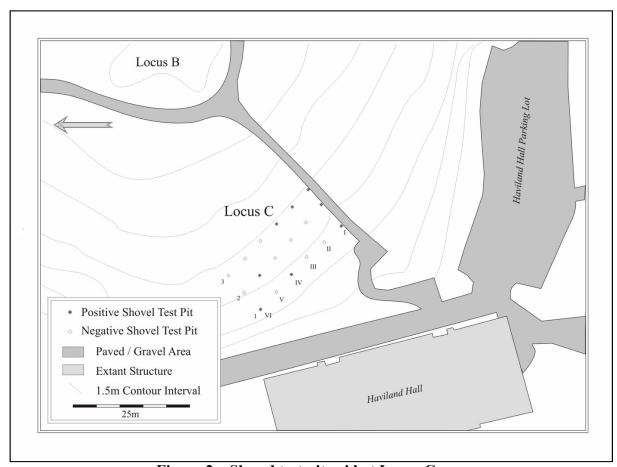
Figure 2.   Shovel test pit grid at Locus C

The most significant artifact recovered from this area was a red, hard rubber Waterman pen lid with a gold-plated clip (Figure 3). Pens like this one were typically popular in the first decade and a half of the 20th century. Similar pens, manufactured by other companies, advertised in the 1902 Sears Roebuck Catalog as costing in the range of $1.95 to $3.75 (Amory 1969:98), and still commanding prices of over $1.00 in 1909 (Schroeder 1971:330). Given that working class laborers often made no more than a dollar a day at this time, the loss of such a pen was not a trifling matter. While the recovery of this pen was interesting, like other artifacts from the area, it was not recovered from an intact deposit, but from an erosion deposit. None of the materials were recovered from intact deposits, and no further excavation was deemed necessary. It is our evaluation that no significant deposits would be impacted by construction in this area.

Figure 3.   Photograph of Waterman Pen lid recovered from Locus C

Section II: The Student's Observatory (Locus B)

Astronomy in the late 19th to early 20th centuries

The late 19th and early 20th centuries were exciting times in the development of astronomical science, both as a science and as a social phenomenon. For the Victorian, the earth had been notably conquered. The British Empire was at a zenith, with even the mysterious continent of Africa seemingly subdivided and explored. Even the barren wastelands of the Arctic and Antarctica were being traversed. In the United States, by 1893 Victor Turner had declared the frontier closed and manifest destiny fulfilled. In biology, the late 19th century brought the identification of bacteria, and introduced the public to the possibility of invisible worlds to be explored through the lens of a microscope.

Astronomy offered the opportunity to explore yet another invisible universe, through the lens of a telescope. In a world where progress and modernity were increasingly shaping the world views of the European Diaspora, the star-gazing astronomers were scientists exploring the next realm for human expansion. Yet, unlike the microbiologists in their sterile labs, the life of the astronomer was also highly romantic—scientists who spent long nights exploring the mysteries of the universe, and used seemingly magical science to render the invisible visible.

The public brought the instruments of microbiology and astronomy into their homes. In the period of the Enlightenment, telescopes and surveying instruments were playthings of the wealthy, used to exhibit both their wealth and their position as educated (Leone 1988). By the late 19th century, however, microscopes and telescopes were advertised to the masses. The Montgomery Ward catalog of 1894-95 includes microscopes ranging from hand-held parlor toys costing a mere $.16 each, to student and professional models ranging from $4.00 to $45.00. Telescopes and spy glasses were also sold. Model 23634 sold for $26.00 and was described as "Telescope for landscape and astronomical purposes, polished mahogany finish, with brass mountings. Length of body 25 inches, fitted with 22-line objectives, a 15" draw tube or terrestrial eye piece, magnifying power 35 diameters. A 6 inch draw tube or celestial eye piece, magnifying power 50 diameters." The $52.00 telescope was strictly for astronomical use, measuring 38" long with a 3' achromatic objective, and power of 125 diameters." For an additional $12.00, one could purchase a tripod for this telescope (Schroeder 1970:200). By 1908, the Sears, Roebuck and Company was offering achromatic telescopes with 24X magnification for $4.70 (Schroeder 1972:190). While these small telescopes would clearly not compare with the instruments used by the professionals, they represent a very real interest on the part of the public in astronomy.

Astronomers fed upon this public interest, often depending upon the support of philanthropists to sponsor the purchase of increasingly large and powerful telescopes (Clerke 1908; Leverington 1995). One could easily argue that the first space wars began in the 19th century, as facilities in different countries vied to establish themselves as the premier observatory. It was through the financial support of James Lick that Lick Observatory, the University of California research facility on the top of Mt. Hamilton, was completed in 1888, bearing, at 36", what was the largest refractor lens in the world (Wright 1987; Osterbrock et al. 1988).

Astronomers recognized their dependence upon the public for funding and continued support, and engaged with them accordingly. The famous Lick Observatory was open to visitors on Saturday nights (Wright 1987: 195). At Berkeley's Student's Observatory, visitors were welcomed to the facility several times a month, as evidenced by a number of Daily Cal advertisements. This September 2, 1897 extract is typical, "The Student's Observatory will be open to visitors, as usual, the first and third Monday of every month from 7 to 10 o'clock pm. Admission will be by ticket, good only for night issued, which may be procured in advance at the Recorder's office. The number of visitors on any one evening is limited to twelve" (Daily Cal, 1897). The Department of Civil Engineering and Astronomy also published the Monthly Meteorological Synopsis of Berkeley, a

newsletter that was sent to interested members of the campus community (Daily Cal, September 2, 1897). Berkeley newspapers, such as the Berkeley Daily Gazette, (Schwartz 2000) regularly featured articles on seismological and astronomical research being conducted on campus.

This March 12, 1924 piece which appeared in the Daily Cal is typical of reporting of the era,

> One earthquake a week is the average recorded by the seismographic station on the campus according to investigations which are being carried on by Professor J. B. Maclwane of the Geology Department. Professor Maclwane has been making researches as to the nature of the earthquake waves. During the last few years a large number of quakes were registered. The data collected by the department has been given to scientists the world over for the purposes of study. Data on the Corralitos quake which occurred September 19, 1923 has just been completed. The shock was well-registered here and also at the University of Santa Clara and the Lick Observatory (Daily Cal March 12, 1924).

The public interest was wholly justified. Advances in photographic and telescopic technology had led to new types of astronomical documentation. The period from 1870-1920 saw the development of celestial photography, with the first photographic observation of the red spot on Jupiter occurring in 1878 (Clerke 1908:438, 451). During this time, physicists were discovering x-rays, gamma rays, the electron, and developing the quantum theory of radiation (Leverington 1995:355). People like James Keeler, then at the Alleghany Observatory, were on the cutting edge of the "New Astronomy"—or astrophysics. In a particularly elegant example of the potential of spectroscopic analysis, Keeler demonstrated that Saturn's rings were indeed made of particles rather than a solid mass (Osterbrook et al. 1988:109). World wide collaborations led to systematic catalogs of nebulas, stars, planets and other celestial bodies (Clerke 1908). It was in this period of great hope and innovation that the astronomy program at Berkeley developed.

The documentary history of the Students' Observatory

The Students' Observatory was founded with an appropriation of $10,000.00 in 1885, with instruction beginning two years later. Professor Armin O. Leuschner took over the instruction of astronomy in 1892, and in 1896, the Astronomy Department was founded (Crawford 1939:2). It is worth providing some background on Leuschner. Armin Leuschner had been born in Detroit, but raised by his widowed mother in Germany. He returned to the States to attend the University of Michigan. Drawn by the recently completed Lick Observatory, he arrived at Berkeley in 1889 to serve as the first graduate student in astronomy to work with William Holden, the Observatory's director. Leuschner lived at the observatory for his first year, earning money as a tutor for Holden's young son. Frustrated by the isolation and by Holden, he returned to Berkeley to take classes and picked up teaching. He ceased working with Holden, who feared having a rival at Berkeley, and focused upon developing his teaching program.

The university hired Leuschner as a professor, without his degree, based upon a competing job offer from Michigan. Keeler married Ida Denicke in 1896, cementing in the process, an alliance with her father, Ernst Denicke, a San Francisco millionaire who was seen by some as an invisible regent (Osterbrock et al. 1988). Leuschner took a year-long sabbatical with his new wife, and completed his PhD in Berlin (Osterbrock et al. 1988:177).

Upon his return, Leuschner used Denicke's dislike of Holden to his advantage, and through their combined efforts, Holden was driven out of the directorship of Lick, and replaced by James Keeler, who had worked favorably with Leuschner during his 1890 tenure at the observatory (Osterbrock et al. 1988:103). Keeler's appointment was beneficial for Berkeley, for he established the Lick Fellowship, which trained graduates at Lick, and which gave priority to University of California students (Osterbrook et al. 1988:181).

While Leuschner may have seen the advantages of the Lick connection in recruiting students, he did not abandon hope of creating a premier astronomical facility at Berkeley. Leuschner was a noisy advocate for the observatory, and the Office of the President's Records contain several letters from Leuschner to Benjamin Wheeler requesting additional support for the observatory. It may be that Leuschner's family connections made the president more willing to hear out his demands.

Developing the Botanical garden near the Observatory was probably not one of the best campus planning decisions, and the abundance of trees surrounding the observatory became part of Leuschner's crusade to gain an improved facility. Leuschner complained of tree interference in sitings. Writing in February of 1901, Leuschner complained to Benjamin Wheeler, "A branch of a eucalyptus tree to the south of the botanical garden, in the north and south line of the transit instrument, greatly interferes with the proper adjustment of the transit instrument. Kindly issue instructions to the Superintendent of Grounds and Buildings to cut off the branch in question." (Leuschner 1901a). In April of 1901 he wrote again to Wheeler, this time requesting that tall trees northwest of the observatory be cut down to aid observations of the new star in Perseus (Leuschner 1901b). Again, in March of 1902, the trees to the northwest were found to be problematic. "Kindly instruct Superintendent Kellner to cut three trees and some shrubs, north and northwest of the Observatory. The trees interfere with astronomical observations" (Leuschner 1902a).

Leuschner's strategy became apparent in a July 10, 1902 "Memorandum of the Matters Concerning the Berkeley Astronomical Department 1900-1902". After an impressive review of the department's relationship with the Lick Observatory, and the outstanding success of graduates of Berkeley's program, the inadequacies of the current facilities were detailed.

> The present location of the observatory has become entirely inadequate for the needs of the department. To afford the necessary relief many large trees would have to yield to the ax. The problem of securing an

unobstructed horizon has become a question of immediate importance
through the necessity of finding a suitable location for the Fair telescope
and for the photographic lens which is to be mounted during the current
year. The observatory has been enlarged three times in recent years by the
addition of a computing room, an office for the directory, and a lecture
room. The Department is now in need of a computing room for graduate
students and of a laboratory for the measurement of photographs and for
spectroscopic and photographic work. Under these circumstances the
question of raising the observatory buildings or of removing them to
another location seems to force itself on the University for early
consideration. In this connection the hope may be expressed that the
suggestion recently made to the Director of the Observatory by the
President that the members of the Department be enabled to reside near
the Observatory at the University grounds may soon be realized
(Leuschner 1902b).

Apparently, the subtly of this missive had no impact on the president, for in 1903,
Leuschner wrote, "I beg to urge upon you and the Honorable Board of Regents, the
necessity of erecting an annex to the Students' Observatory. The proposed annex should
contain a dome for the Fair telescope, a dome for the photographic telescope, a
spectroscopic laboratory, a computing room for graduate students, a photographic
laboratory, LIVING APARTMENTS FOR THE DIRECTOR AND FAMILY (nine
rooms and basement), and possible also for the instructor (two or three rooms) (emphasis
in original, Leuschner 1903a). Since as early as 1900, a series of students, employed as
"Student Assistants" had resided at the Observatory, receiving pay and supervising
readings (Leuschner 1901c). Such an arrangement assured that the evening skies were
constantly monitored. Lick Observatory, in its remote location, had living facilities.

A May 1903 letter from Leuschner to Wheeler acknowledged the kind offer of Mrs.
Hearst (Regent Phoebe A. Hearst) to "turn over Henry House to the Berkeley
Astronomical Department [to] enable us to set aside proper accommodations for the
asteroid work." In the same letter, he acknowledges that Wm. M. Preston of San
Francisco had donated an 8-inch reflector telescope (Leuschner 1903b). Leuschner's
efforts for further resources paid off, for in January 1904, "the new Observatory buildings
of the University of California will be opened on Saturday, January 30th, in connection
with a meeting of the Astronomical Society of the Pacific, which is to be held in the large
lecture room of the Observatory at 8pm" (Leuschner 1904). The new buildings consisted
of one main building with two large rooms, two domes, and dark room, store rooms, and
a separate dome in which an 8 inch reflector was situated; the other domes housed a 5
inch reflector lens and a photographic telescope.

Leuschner was not satisfied for long, however. The placement of a new lit path through
campus had apparently raised Leuschner's ire. Benjamin Wheeler wrote in an apologetic
tone, "I wish the new path crossing the grounds to be regularly lighted at night so that
people may be sure of one safe way by which to cross the grounds. I will have the light
placed in the position, if possible, most convenient for you, but I feel that it will be

necessary to move the Observatory, rather than the path. We must therefore find a way of getting on for the present. It will not do to provide the Observatory with a switch which could turn off the light at an hour in the evening when people are likely to use the path" (Wheeler 1904).

Leuschner's hopes for a new observatory site did not dim, in September 1909, he wrote to Wheeler, "I hope that in the not too distant future the University will provide for an astronomical and for a geophysical (or geodetic) observatory along side each other on the crown of the hill above the campus" (Leuschner 1909). Leuschner's correspondence to Wheeler alternates between asserting the successes of the astronomy department—its various book acquisitions, its discoveries, its large enrollment—and begging for resources, such as a pathetic letter asking to purchase a Remington typewriter (Leuschner 1901d). It must have been frustrating to him when Wheeler seemed to undermine the seriousness of the observatory's scientific works with requests like one he made of Leuschner in October of 1909. "Unless you have other use for the Observatory on the night of October the nineteenth, Tuesday, Dr. Wolle would like to have the University Chorus meet there. Will you kindly let me know if there is still a piano there?" (Wheeler 1909). As one of the largest lecture halls on campus, the observatory was used by a variety of departments, courses, clubs, and visiting lecturers.

The observatory was not moved. Instead, students increasingly depended upon time at Lick Observatory for the completion of their astronomical research. Russell Crawford's 1939 history of the facility summarizes this arrangement. "Our Students' Observatory here on the Berkeley campus is very appropriately named. It is primarily for the students. We are very well equipped for offering the students instruction in practical astronomy. After they have had sufficient course instruction and practice with our small instruments they then may have the opportunity of going up to Lick Observatory and become aquainted with the larger instruments through serving as assistants to the astronomers." (Crawford 1939:1).

The astronomy program at Berkeley was a great success, producing a number of notable graduates by the 1930s. The program was also notable for its training of women, with the first PhD from Lick being granted in 1913 (Osterbrook et al. 1988:190).

Development of the Astronomy Complex

While Leuschner may not have succeeded in his quest to have the observatory move to a new location, the facility did enjoy remarkable growth. A photograph from circa 1890 (Figure 4) of the observatory illustrates the seemingly isolated nature of the structure, a point reinforced by an 1888 campus map (Figure 5). By 1908, not only has the original observatory been expanded, but the classroom building has been constructed (Figure 6). The original observatory structure had been expanded to the east with an addition that tripled the size of the complex. The 1911 Sanborn map also shows the location of the platform that later became known as the "Golden Bear" to the south of the original building. This platform, designed to look like a ship, was used to teach students the art of nautical survey. By 1933 (Figure 7), the observatory complex includes multiple

classroom, domes, and structures, and remained densely covered with structures until just before its demolition (Figure 8).

Figure 4. Photograph of Students' Observatory ca. 1890, with wisteria (courtesy of Harold Weaver)
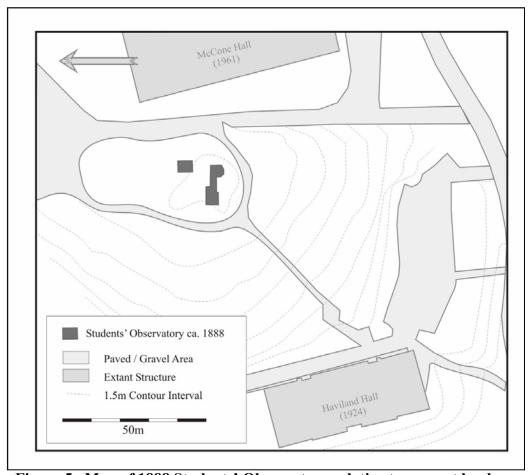
Figure 5. Map of 1888 Students' Observatory relative to current landscape
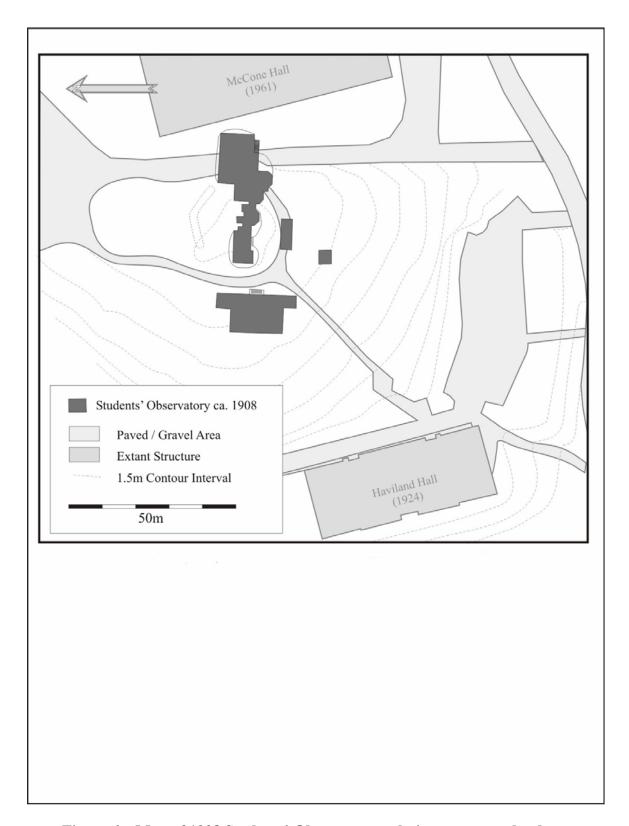
Figure 6.   Map of 1908 Students' Observatory relative to current landscape
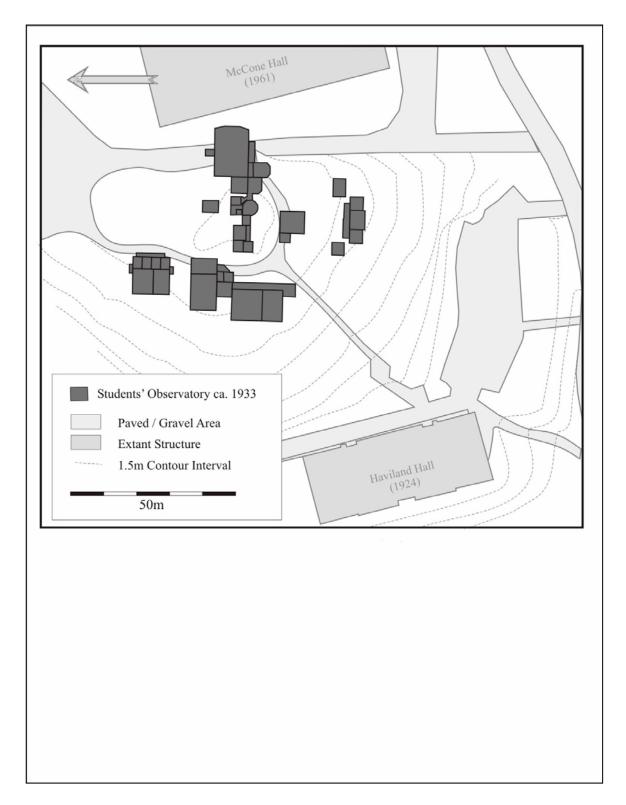
Figure 7.   Map of 1933 Students' Observatory relative to current landscape
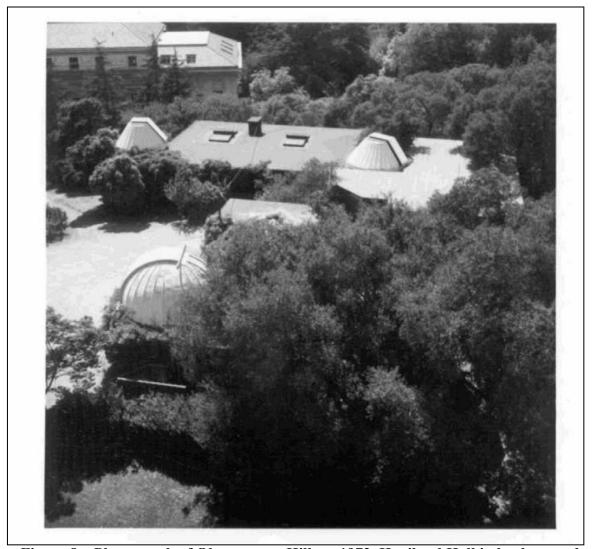
Figure 8.   Photograph of Observatory Hill ca. 1972, Haviland Hall in background

Archaeological Testing at the Student's Observatory

Excavation units numbering from 21 to 62 were excavated at the observatory complex (Figure 9). Forty of these units were 1 meter squares, one was a 50cm square, and one was a .5 by 1 meter unit. We originally estimated that we would excavate 10-20 square meters in this area, thus we feel that a more than adequate sample of materials has been recovered from this area to determine the deposit's research potential.

The stratigraphic sequence at the locus can be summarized as follows. The uppermost level of soil was dark and rich in organics. We recovered numerous coins in this level, none older than the late 1960s, and the majority corresponding to the period following the demolition of the observatory. This level also contained rubber hair combs, pencil and ruler pieces, gum wrappers, sunglass fragments, and other ephemera one would expect to

Figure 9.   Extent of Excavations at the Students' Observatory

be lost and discarded by students sitting and reading, eating, or sunbathing in the open glade created by the removal of the observatory buildings.

After the removal of the upper humus layer, in the units adjacent to the structure, we quickly encountered a reddish sand layer, which overlaid a darker sand layer. Underneath this we encountered a mixed cultural level that included demolition rubble and overlaid sterile clay. The layers of sand were clearly introduced following the destruction of the structure, perhaps in attempts to halt erosion or to protect the remaining structural components.

The 1875 Observatory Building and Yard

Our first focus of testing at Locus B was to define what existed of the original building. The eastern additions built onto the observatory building would have been largely destroyed by the construction of McCone Hall. Since a portion of the original structure's front wall (southern wall) had been spared, and a section of the brick foundation left exposed, we decided to work from the known to the unknown. Using the building dimensions recorded on the 1911 Sanborn map, we laid out units to find the northwestern corner of the structure, and to look for evidence of room partitions within the structure.

We also placed a unit adjacent to the granite pillar. Since this feature was visible in early photographs and provided a potential anchoring point for finding other structures relative to it, we wanted to ascertain whether it was in its original position or not. We also hoped to find some material evidence of yard use in this excavation unit.

We quickly learned that once we were beyond the immediate vicinity of the standing wall, subsurface preservation became very poor. The observatory foundation consisted of 4 courses of brick. Based upon excavations adjacent to the preserved foundation remnant, at least two brick courses of the foundation appear to have been laid below the surface. We were able to identify a portion of the northern exterior wall of the original observatory structure only because these subsurface footings had not been uniformly removed during demolition (Figure 10). We identified surviving brick foundations in 7 excavation units. We identified scant artifactual evidence of the historic occupation, and that recovered was found in the units adjacent to the standing foundation remnants. Several of the artifacts do warrant some mention.
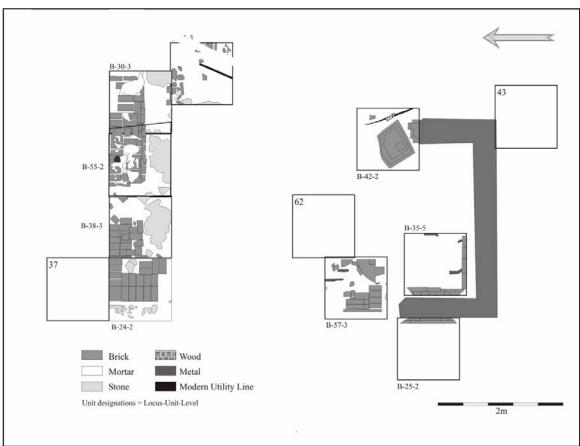
Figure 10.   Extent of foundations recovered during excavation of the original Students' Observatory

The vast majority of the ceramics recovered from the original observatory building and yard were structurally related. Utility porcelains representing parts of a toilet, sink, and light fixtures were recovered. A minimum of 5 porcelain electrical insulators was found. Drain pipes, of terra cotta and coarse earthenware, suggesting both sewage and run-off water removal were also represented. We did recover a minimum of 5 ceramic tableware vessels from the area: a plain porcelain plate, an undecorated whiteware teacup with an 8 cm rim diameter, an undecorated whiteware plate, an ironstone brown transfer-printed bowl, and a whiteware turquoise art pottery plate. While the undecorated whitewares and porcelains could have been manufactured anytime during the observatory's occupation, the brown transfer-printed wares were particularly popular from the 1880s-early 1900s. Art pottery was popular through the 1930s and 1940s (Cunningham 1992). These ceramics may be a small glimpse into the lives of the students and others who resided in the observatory.

While seemingly extraordinarily large, the number of glass fragments at Locus B (3975) is artificially inflated by the recovery of 2267 colorless glass fragments from a single fluorescent light tube. The number is further inflated by 659 fragments of "safety glass" of the kind used in institutional windows and glass walls. When these anomalous concentrations are subtracted from the Locus B total, 1049 fragments from varied objects and vessels remain.

In total, the glass remains from Locus B suggest the deposition of a small number of electrical parts (light bulbs and circuits), one medicine bottle, and a modest number of beverage bottles.

A few additional artifacts deserve some mention. Among them is a hand-painted China clay marble. It is white with remnants of red and green paint still intact. The design is badly worn but a bulls-eye pattern can be seen on one side of the marble and bits of green paint still cling around the center. These marbles were glazed and fired, then hand-painted usually with bulls-eye designs, flowers, and concentric rings (Grist 2000: 41-42). China Clay marbles like this were popular from 1884 through the 1920s (Grist 2000: 4). This manufacture date suggests that the marble's deposition occurred during the occupation of the observatory. Was this marble a toy played with by a child of one of the astronomers? Or perhaps, the students themselves, bored with long nights of maintaining the record keeping, amused themselves with marble games. Two coins of note were found. One is a Japanese coin made of cupro-nickel bearing a 1954 date. It is a 100 yen piece which is still in circulation today. The other is a 1887 seated liberty dime. Because it precedes the silver crisis of 1965, it is composed of silver instead of cupro-nickel (United States Mint 2003). Both of these coins were manufactured at times when the observatory was still being used by the university.

The units placed in the yards to the south and north of the original observatory demonstrated that cultural remains associated with the use of the observatory complex had been destroyed by previous demolition activities. The soils have not merely been disturbed, but physically relocated. A likely destination for the matrix is that it was used to fill basement spaces in the original complex. Complete excavation of the basements may reveal the presence of relocated 19th and early 20th century materials, however, such

deposits would have limited scientific value. The greatest insight into the use of the site was recovered from the unit placed adjacent to the granite survey pillar. The pillar was clearly not moved at any time in its history. The pillar base was found at a depth of 80cm. The base was surrounded by discarded redwood lumber. It is our belief that the lumber was from a pallet or similar platform that was used to lower the pillar into its construction trench and then discarded as backfill. The remainder of the backfill was coarse gravel, which presumably, would have allowed for the pillar's position to be adjusted and properly leveled once in the ground. Once leveled and positioned, the pillar was unlikely to be moved by simple human force. We had intended to define the size of the original construction trench, but our excavators found pinhead sized balls of mercury resting on the base of the pillar. We stopped excavation and notified Facilities Services, who in turn notified the campus Environment, Health and Safety Department. The amount of mercury recovered was found to be of little threat to our workers, but to be safe, the illustration of the unit's stratigraphy was completed under the guidance of the hazardous waste unit on campus, and we abandoned further excavations around the pillar. The mercury ended up, however, being the most significant find from the observatory. Pools of mercury were used in siting survey points, as can be seen in the circa 1890s photograph of the class in the yard. The students in the photograph are holding containers with mercury as part of their classwork (Figure 11).

Figure 11.   Circa 1890 photograph of University of California students doing coursework in the yard of the Students' Observatory (Bancroft Library)

We were unable to find evidence of the "Golden Bear" survey platform and associated activities. Photographs from the 1970s show that the area south of the original observatory served as a parking lot, as evidenced by the recovery of gravel and decayed asphalt. No portion of the seismology building was preserved. The demolition of the buildings, and probably subsequent use of the space as a staging area for the construction of McCone Hall, has eradicated evidence of these structures.

The Classroom Building

We found that previous demolition activities on site had failed to save remnants of the classroom building as well. We were able to identify part of the concrete footing and entrance way from the classroom building. However, while this area does not seem to have been graded to the same extent as the area surrounding the original observatory building and yard, it has been impacted by erosion and encampments by homeless people. We did recover part of a two-piece molded lipping tooled bottle neck from a unit west of the classroom building. This type of manufacture was typical of bottles dating from circa 1875-1920 (Jones and O'Sullivan 1989). Otherwise, materials from this structure were limited to broken florescent light tubes and other structural materials left in the building at the time of demolition.

Section III: The Conservatory (Locus A)

Conservatories in Victorian Society

The wood-framed Conservatory of Flowers in San Francsico's Golden Gate Park, erected in 1874 after the city acquired the components from the estate of James Lick, is perhaps the best known example of a Victorian glass house in the Bay Area. It was not the first, however, as when constructed it provided unwelcome competition for R.B. Woodward's "Woodward's Gardens" (TME-ARG 1998:42), a private estate turned amusement park with a collection of conservatories camellias in 1976:

> Adjoining the Museum is an extended series of Conservatories. In these fairy-like apartments beautiful exotics greet the visitor with sweet perfume, while in one room a wilderness of ferns challenges observation. They are of numerous varieties and from widely separated localities. Connected with the largest Conservatory, through which the visitor enters, is a small but select Art Gallery, reached through a vestibule, which is frescoed in imitation of Pompeian art. (Turrill 1876:n.p.)

In similar pattern to that displayed by Lord & Burnham's client lists, most other Northern California conservatories of the late nineteenth and early twentieth centuries were part of private estates, rather than the property of public institutions. An 1879 article by Charles H. Shinn in *The California Horticulturist* describes a few of these structures. The

Stanford and Hopkins conservatories of San Francisco apparently represent "what the wealthy citizens of California are really doing in the growth and delight of flowers." (Shinn 1879:337). Both located on California Street, the Leland Stanford estate had a palm house with two wings and the Hopkins estate had three wings and an "upper conservatory." The "Residence of A.K.P. Harmon, Oakland" is shown in a photo facing the first page of the magazine, pictured is a large estate with a two-wing glass conservatory with a tall, octagonal dome and gothic-influenced vestibule (Shinn 1879). Harmon apparently welcomed Oakland School Children to his Lake Merritt conservatory, while "Frederick Delger, Oakland's first multi-millionaire, could offer guests at his fabulous Telegraph Avenue estate the visual treat presented by his collection of Camellieas [sic] and azaleas, after which they might divert themselves in his commodious aviary twittering with birds of rare and brilliant plumage" (Richey 1970:20). Slightly farther afield, Darius Ogden Mills purchased a Lord & Burnham conservatory for his Millbrae estate in 1872 (TME-ARG 1998:39), and in 1880 Mrs. E.B. Crocker commissioned the Bell Conservatory in Sacramento, which provided flowers for the nearby City Cemetery (Sacramento Bee, May 6, 1885).

Whether public or private, glass conservatory buildings were constructed as part of a larger garden with both indoor and outdoor components. In the examples discussed above, the gardens were designed for the edification of the owners and their guests, and to display a mastery of natural species drawn from the far reaches of the western Empires. While also designed to protect exotic collections, the University of California's conservatory was built with the specific intent to be part of research collections within the realm of higher education. Even though a ca. 1912 postcard depicts the Conservatory, surrounded to the south by lush outdoor botanical gardens, as a sparkling centerpiece, the building's teaching and research functions always outweighed its public and aesthetic appeal. Indeed, the Berkeley location was just one of a network of Experiment Stations throughout the state described by Charles H. Shinn in an 1894 *Overland Monthly* article. He illustrated the Berkeley gardens, including the planned conservatory, as follows:

> The central station grounds occupy about twenty-five acres of hill slopes and small levels along the creek north and northwest of the main University plateau. Here are the nurseries, the orchards, the garden of economic plants, the wild garden, the propagating houses, the collection of olives and other plants, the seed house, the fruit house, the grain plats, grasses, clovers and other experimental plats too numerous to be named. The land for the most part is of inferior quality, and slopes to the west, lying exposed to sea winds. The production of fruits is limited, of course; peaches, nectarines, and similar species, being of poor quality, and such things as figs, lemons, oranges, and guavas, requiring more heat to ripen well. Nevertheless, the mild bay-shore climate, subject to but slight changes of temperature, proves adapted to an immense range of plant life, and the outlying stations are being rapidly supplied with extensive collections propagated in the nurseries here.

> The grounds are attractive to every botanist and lover of noble trees. The old oaks that Keith has painted look as if they might last five hundred years longer. Immense eucalypts, acacias, pines, cedars, and a great variety of exotic species, mingle with those native to California. Especially effective are groups of palms and several tall deodar cedars. Of interest to every lover of plants are representative trees from Chile, Japan, Australia, and other countries, that have been collected in the course of years from all parts of the world. When the large propagating houses and conservatory, soon to be built, are in working order, the list of plants will be much extended. Even now there are more species of plants represented in the various experiment gardens and on the University grounds than anywhere else on the Pacific Coast." (Shinn 1894:171-172)

Such extensive plant collections enhanced the State University of California's reputation, and that of soils expert and College of Agriculture booster Professor Eugene W. Hilgard.

North American iron-frame glasshouses share a common ancestry in structural and stylistic influence from Joseph Paxton's 1851 Crystal Palace in London, and such symmetrical designs as Decimus Burton and Richard Turner's 1845 – 1848 Palm House at Kew Gardens. While wood-frame glasshouses had long been popular among wealthy Europeans, Paxton's Crystal Palace demonstrated widely the potential of iron-frame buildings made from pre-fabricated parts (Koppelkamm 1981:25) Cast-iron, as a building material, allowed for parts to be mass-produced with great consistency. It was only in the later nineteenth century, however, that a florescence of private and public conservatories bloomed in North America.

Growth of manufacturing industries with access to distant markets connected by rail allowed for companies specializing in greenhouse production to flourish on the East Coast of the United States. Hitchings & Co., of Jersey City, and Lord & Burnham Co., of Irvington, New York supplied plans and parts for conservatories ranging in size from small additions to upper-middle-class homes to the 376 foot long showpiece commissioned by Jay Gould for his Lyndhurst estate in 1881 (Doell 1986: 76), and the Enid A. Haupt Conservatory in the Bronx, New York designed by William R. Cobb, completed in 1902 (Woods and Warren 1988: 152)

The Lord & Burnham Corporation began in 1856 as Lord's Horticultural Manufacturing Company, which settled in 1870 at Irvington, New York, near the estates of wealthy private clients (Lord & Burnham 1956:n.p.) By 1873, the company offered not only a greenhouse's structural elements, but also the boiler for the heating system integral to maintaining controlled environments for plants. Their catalogue of this year listed institutional clients such as the Alabama Polytechnic Institute, the U.S. Department of Agriculture, the Connecticut Hospital for the Insane, Harvard University, and the U.S. Military Academy at West Point. Lord & Burnham's 1892 catalogue, which would have been available for perusal by the University of California committee debating plans for their own conservatory, boasts among their clients Jay Gould, T.C. Eastman, William Rockefeller of Tarrytown, New York. In 1905, the two horticultural building giants of the United States, Lord & Burnham and Hitchings & Co. merged, while continuing to conduct business under their original, separate names (Lord & Burnham 1956:n.p.)

By 1910, Lord & Burnham boasted in its catalogue that

> Our Sectional Iron Frame Greenhouse is the culmination of an experience of this firm and its founders covering half a century and more.

> It has been developed and perfected through out constant efforts to secure houses of greater durability and to meet the demands of gardeners for more light. The larger the amount of light admitted the greater the quantity of the blooms obtained, besides securing an unequaled perfection in their shape and coloring. (1910: 91)

It is important to recognize the ambiguous position occupied by the University of California's Conservatory from the beginning. While the Regents of the University of California may have referred to the structure as the "plant houses" in their correspondence (RUCR), the plant houses took a form well-known in the vernacular as "conservatories". The purpose of a household conservatory was an expression of the Victorian obsession with collecting—a material endorsement of colonialism.

The Conservatory at the University of California

The construction of the conservatory, or Plant-houses, as the structure is often referred to in the records of the Regents of the University of California (RUCR) was initiated by E. W. Hilgard, professor of agriculture, who indicated a strong need for a palm house at the University, gaining an original appropriation of $6000.00 to accomplish the task (RUCR-1). Hilgard, still regarded today by many as the father of soil science, studied and developed agricultural fertilizers. It is likely that the plant-houses were related to this research, although we have not yet found limited documents indicating how the conservatory was used during his tenure.

Need and Plans for the Plant House

In an 1890 or 1891 memorandum, Eugene Hilgard, of the College of Agriculture, articulated the need for a facility to house botanical and agricultural research collections:

> What is most needed at this time is the central portion, the "Palm House", the height of which to the ridge of the roof is planned at 30 feet. It is for this part that the appropriation of $6000 was intended. With benches all around and a space in the middle for the palms and other trees, which now cannot be retained in our low-roofed sheds after they attain a respectable development, we will be able to get along so long as the present buildings can be kept up. After their collapse, which cannot be deferred for more than a few years, instead of rebuilding at the present site, which is undesirable, the additions (marked in the plan for "Ferns" and "Orchids") should be built.

> The general objects of the whole building would remain the same as at present: The representation of important tropical and other plants not hardy at Berkeley, to serve in the study of Botany, both General and Economic, and to illustrate the

practice of Horticulture and Floriculture for the corresponding courses of instruction. (RUCR 1)

The building requested by Hilgard would not be the first, nor only glasshouse on campus, rather it was a replacement for aging College of Agriculture structures housing sensitive collections. An undated photograph likely taken before 1889, titled "Conservatory – University of California, Berkeley Cal." (BancPic 1979.034 – ALB (NRLF W 70 514) "Scenes from various San Francisco Bay Area Locations," p. 31) shows two sloped-roof greenhouses set at right-angles to each other, with North Hall visible in the background above the roofline of the "south" building. No other documentation of this earlier "Conservatory" can be found, though they may be the "low-roofed sheds" Hilgard refers to above. In response to Hilgard's requests, a Regents Special Committee on the Plant House formed and began receiving proposals for the desired structure.

The first plan was submitted by Hitchings and Co. in 1891, before the correspondence with eventual contractors Lord and Burnham Co. started in 1892. It consisted of houses for begonias, ferns, orchids, and camellias, as well as a palm house, in a building with a 180' total span. (RUCR 2) The central range and wings would be furnished (without heating apparatus) at a cost of $19110.00 ($22000 with the heating apparatus), with the option of the palm house, passage, and office (without heating apparatus) offered for a cost of $7800.00. (RUCR 3). In a Jan 29, 1892 memorandum to the College of Agriculture, E.W. Hilgard estimates the full cost of the entire Hitchings and Co. plan, with foundations and transport costs, as $26,120 (RUCR 4). This could be reduced to $15180 by omitting the two outer wings. A similar structure, constructed in wood by George C. Pape of Berkeley, could be constructed for $16,300 and $11,000 respectively (RUCR 4). These estimates fail to include the palm house, of which Hilgard writes:

> The latter portion – the palm house – is what is most urgently needed; it was for this that my estimate of $6000 was made; Pape offer exceeds this estimate by $900. Hitchings estimate would probably be in the proportion of the others, say from 10,000 to 11,000 dollars.

Securing funding for the conservatory was clearly a difficult process, as expressed in Hilgard's suggested compromises:

> It is for the Committee to determine whether or not iron or wood shall be used. If wood, the work can be proceeded with, the excess being appropriated out of next years allowance. If of iron, it may be necessary to defer the work so as to allow time for the accumulation of funds available for the purpose. I think the latter plan would be preferable to a reduction in the size of the building, which ultimately will require all the space estimated for. (RUCR 4)

Wm. T. Davis and F. Stolk also submitted ink and pencil plans on vellum, displaying an alternate plan for a plant house with a large palm house and short wings. No estimate accompanies this drawing in the University Archives (RUCR 5).

On March 23, 1892, an answer to the need was predicted in a letter from W.A. Burnham, President of Lord and Burnham, Co. of Irvington, New York, who submitted a proposal

to build the greenhouse with two wings for $20,000, or without wings for $12,800 (RUCR 6). Burnham estimated that, following six weeks of preparation by the company and rail transport of materials, the conservatory could be built (minus the brick foundation) in approximately 60 days. He writes also of his intent to grant super-intendency of the project to Mr. Pape, who had earlier submitted his own bid for the project! By April 30th, 1892, the University of California had drawn up a contract with Lord & Burnham for the construction of the plant houses for a sum of $20,000 (RUCR 7). Through the spring of that year, letters exchanged between W.A. Burnham, George Pape, and the University of California discussed and revised plans for the size of the Palm House and locations of the potting room and boiler. Some delays, although of unknown origin, were experienced while Lord & Burnham waited to secure the signed contract, as on May 25, 1892 W. A. Burnham wrote to offer the University a deferral of the final $10,000 payment. The same day he wrote to George Pape that "We are anxious to put up one of our Iron Houses on the Pacific Coast, and we know of no better place to put it than at the University of California. It certainly will be of great advantage to us." (RUCR 8)

Process of Building the Plant House

Bids for masonry work on the conservatory foundation, which was to be in place before Lord & Burnham's pre-fabricated structure could be erected, were taken in 1893. Bids were also submitted for excavation of soil and removal of trees from the proposed conservatory location (RUCR 9).

As of July, 1893 the University's allotment for Lord & Burnham's building had been reduced to $17,500, as it was understood that the masonry foundation, cartage costs from the railway station, and potting shed would need to be paid for with $2500 of a $20,000 allottment. According to Lord & Burnham's policy,

> The following items are excepted from our specification and estimate unless there is a special understanding in writing, to the contrary:
>
> Masonry work, which includes foundations, cellar and trench walls, chimney, cement walks, drains, as well as piers for support of the pipe columns benches and heating coils; filling and excavating; bringing water supply main to site; cartage of material to and from nearest railroad station and site; flashing where greenhouse is built against another building. (Lord & Burnham 1910: 94)

 W.A. Burnham revised the plans accordingly to fit the University's lowered budget. (RUCR 10). Shortly thereafter, Eugene Hilgard wrote anxiously to Regent John West Martin of the Special Committee on the Plant House that "As it is now certain that the building can be gone ahead with within that appropriation, and as our wooden houses are fast getting useless, I hope you will see your way to forward the job so as to give us the use of the new building for the coming winter." (RUCR 11). While Hilgard was anxious about delays, at least one document suggests that he contributed to the delay. According to an August 22, 1893 Report of the Special Committee on the Plant House by Regents Martin, Marye and Hallidie, was due to Hilgard's absence from campus for a year.

Hilgard apparently spent part of his time inspecting "the most prominent conservatories on the continent of Europe" (RUCR 12). This tour in part inspired his desire to redesign the palm house. Under the revised plan, the palm house was reduced in size to 45' square.

Final specifications were approved by the Committee on August 22, 1893, according to which "The Compartments will consist of Palm House about 45' x 45', and about 42' high at the ridge on top of large dome; Orchid House 20' wide x 37 ½' long x 14' high; Fern House the same dimensions as Orchid House; Carnation House 25' x 60' x 16' at ridge, and a house of same dimensions for Begonias. Also include one Vestibule on the front about 10' x 12'." (Lord & Burnham 1893). The final appearance of the conservatory can be seen in Figure 12, and the method for its architecture in Figure 13.

Figure 12. Photograph of the Conservatory circa 1900 (Bancroft Library)

As contracts were tendered for stages of construction, San Francisco based architect Clinton Day became responsible for overseeing the progress of construction work, acting as an intermediary between soil scientist Eugene Hilgard and the skilled tradesmen who would assemble the building. Robert Smilie and Co. of Berkeley was contracted to complete not only the excavation and masonry work, but also the assembly of parts

delivered by Lord & Burnham, and for the outside finish, iron and other construction, hardware, ventilation, and plant tables. F.N. Woods & Co. was hired to provide glass and complete the glazing work (RUCR 13). Interestingly, an October, 1894 labor contract made between the Regents and Lord & Burnham stipulated that "...no Chinese labor or articles manufactured by Chinese labor shall be used on or in said work." (RUCR 14).

SECTION No. 38.

THIS SHOWS AN EVEN SPAN CURVILINEAR GREENHOUSE ADAPTED TO GENERAL PURPOSES. IT ILLUSTRATES OUR STANDARD IRON FRAME FITTED WITH CAST IRON SILLS FOR MASONRY FOUNDATION; PATENT NON-FREEZABLE GUTTERS; PATENT SASH BAR CLASPS; TOP AND SIDE VENTILATORS OPERATED BY OUR STANDARD AND IMPROVED APPARATUS; IRON FRAME PLANT TABLES WITH SLATE BOTTOMS; CEMENT WALKS, AND USUAL ARRANGEMENT OF HEATING PIPES.

Figure 13.   Example of curvilinear green house unit from Lord and Burnham catalog

Excavation and tree removal continued through the summer of 1894, as is evidenced by a letter from Regent J.H.C. Bonte to Robert Smilie and Co. complaining that "... upon Saturday last at 2 P.M., a rock was hurled from the place where you were blasting, at Plant-House, into the Student's Observatory, breaking and otherwise injuring property of the University." (RUCR 15) Later correspondence in the Regents of the University of California Records –Buildings and Grounds – Conservatory file relates to problems encountered during construction – for example, a number of glass lights (small panes)

were originally cut too large and projected beyond the ribs intended to contain them (RUCR 16,

A Daily Californian article from September 6, 1895 describes continuing work on the conservatory

> There is not a better constructed conservatory in the state, and California may feel proud of the acquisition.
>
> The work of filling the interior with rare and beautiful plants is being pushed on as rapidly as possible. The center of the main rotunda is being fitted for the reception of the large tropical palms. The left wing is devoted to many varieties of begonias, that are now displaying most exquisite foliage and bloom. The section between the left wing and rotunda is devoted to ferns and small palms.
>
> At present, in the section to the right of the rotunda, a temporary rack has been erected for experiments in the drying of the tobacco experiment ally raised by the University.
>
> In the rear, extensive alterations have been made necessary due to the inadequacy of the former structure for the purposes intended. As a larger boiler was secured than at first expected, it is necessary to enlarge the boiler room and add a coal room, and besides these alterations, plans are being carried out for the erection of a potting room and office.
>
> When completed and fully equipped, the conservatory will be one of the main attractions of the University, both to students and visitors (Daily Californian, September 6, 1895).

Use of the Plant House

Photographs in the collection of the Bancroft Library illustrate small changes made to the Conservatory's structure and surroundings in the years following construction. In an 1897 photograph, for example, the glass surfaces have been whitewashed to filter sunlight for the plants within (Bancroft 10C:6). In a Roland Letts Oliver photo dated ca. 1900, the whitewash is patchy and faded over most of the building (Bancroft 10c:20(a-b)). Out-buildings associated with the Conservatory are also visible in a small number of photographs. In a photograph of unknown date (Bancroft 10c:17), a small greenhouse is located at the base of the steps south of the main building. In a rare aerial view showing the rear of the building ("University of California From 1500 Foot Elevation", Pillsbury's Pictures No. 8165, 1913), a small structure is located behind the east wing, a larger one (presumably the potting shed) behind the Palm House, and a lath house behind the west wing. These buildings are also present on the 1911 Sanborn Map Company fire insurance map, but were not part of the plans tendered by Lord & Burnham. Landscaping changes around the conservatory are illustrated by sequential photos – between 1897 and 1920 the ivy covering the slope south of the Conservatory fills in from its planting shortly after construction, and two palms (one in front of each wing) grow to the large size seen in ca. 1910 pictures, but are gone by 1917 (10c:4).
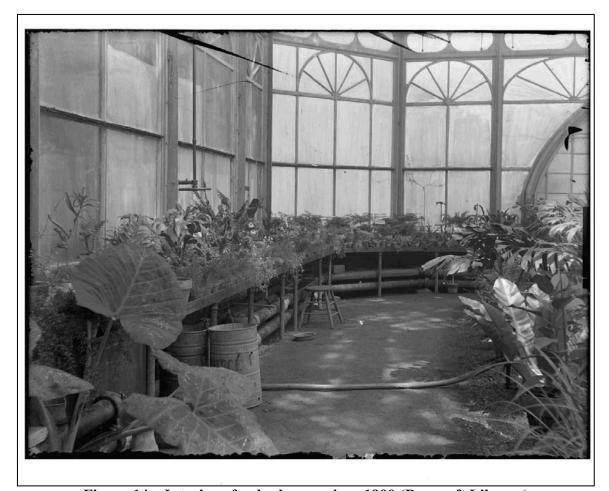
Figure 14.   Interior of palm house, circa 1900 (Bancroft Library)

Corresponding information about what was going on inside the Conservatory is comparatively sparse. Only two photographs (Figures 14 and 15) illustrate the interior of the Palm House and the Carnation House in use. Aside from this, our best insights are drawn from a review of the Daily Californian student newspaper.

An 1896 article in the Daily Californian heralded the success of one of the "rare plants". "The three carica pepaiae, or so called melon trees, in the west wing of the conservatory, are now laden with fruit. There appears to be two varieties, but in reality there is but one. The male and female trees bearing entirely different fruit. [These melons are highly esteemed by natives of the Islands, yet they are not very tempting to the European and American palate, so there is little danger of a moonlight raid]"(Daily Californian, Thursday September 10, 1896). Later that same year, the Daily Californian reported, "Notwithstanding the stringency of funds, work in and about the conservatory has progressed very noticeably. Many new and interesting plants have been received. The cotton plant with its round bulb of cotton, attracts much attention. It was grown from the seed here in Berkeley. The peculiar bird-head vine, a rapid growing plant some fifty feet high, is one of the features of the central dome." (Daily Californian Monday November 2,

Figure 15.   Interior of carnation house, circa 1900 (Bancroft Library)

1896). The mention of the cotton plant provides some proof that some research was being conducted within the green house. Hilgard had been part of a mid-19th century soils survey in the American south, and a review of his publications indicates an interest in developing cotton agriculture in California—now one of the state's thriving agricultural industries.

A 1901 Daily Californian announces that the University had been awarded a gold medal for an exhibit in Paris that had been submitted by Professor Hilgard. The article cites that the exhibit highlights the research conducted by the University of California at its agricultural laboratories at Berkeley and its experimental stations in various parts of California (Daily Californian Tuesday, January 22, 1901). The article does not mention the conservatory as a part of these research facilities, suggesting that the structure was not, even at this early time, a site of significant research. This is somewhat of a departure from Shinn's hopeful 1894 Overland Monthly article, cited above.

It would appear that the conservatory became a repository of strange and unusual life forms. In 1904, a new resident of the Conservatory was announced.

> In the conservatory, where, as a rule, only plants and visitors are allowed, there now resides an alligator basking in the California sunshine. He lives, so it seems, in perfect happiness, taking the artificial surroundings as the best possible substitutes for Florida, and occasionally biting off an extra fern. He spends the balance of his spare time in deciphering the meaning of the queer signs and emblems he sees on the tags and labels of the botanical curiosities which surround him. This monster arrived at the University by express about a week ago. He came in a huge package wrapped in cotton, and labeled "Hands Off". The first California owner of the aquatic brute lived in North Berkeley, and finding he was totally unable to manage such a pet, he kindly gave the thing to J. Joachim, the gardener at the conservatory. This new master now finds that he has a white elephant on his hands. At first he thought the observatory would be just the place to keep his new friend from being killed by frost. Now he says, "The whale swallowed Jonah, may the alligator spare me". In short, an alligator was captured off Florida and has finally come into possession of the University. The animal is a tender youth, about eight inches long, and is at present living comfortably in the Conservatory (Daily Californian, January 28, 1904).

Unfortunately, no further exploits of the alligator are reported. Alligators grow at an average rate of one foot a year, so before long, he would have been harder to manage.

As early as 1911, plans were drafted for a new Botanical Institute in Strawberry Canyon, far from the central campus gardens (Proposed Plans for Botanical Institute. May 20, 1911. UARC G4363.B5.2U5 1911; .P7; case XB) The new UC Botanical Gardens were built during the 1920s, and there was little reason to expect that the conservatory could meet the growing demands of the program (Constance 1989; Goodspeed 1964). In 1912, the Daily Californian ran an article describing renovations of the Conservatory taking place after a long period of decay.

> After lying in a condition of neglect and decay for over twenty years and lying entirely forgotten as a part of the University equipment, the Conservatory, one of the largest buildings and landmarks on the campus is now undergoing a process of rapid rejuvenation. This relic of the earlier days of the University has for a long time been closed to visitors because it was considered unsafe.

> However, due to increased demands for equipment in greenhouses for the agriculture Department, the conservatory, which is situated opposite Doe library, is being repaired and cleaned out so that it may be used as classrooms and for a public show place for horticultural specimens.

> Professor E. B. Babcock of the Agricultural Department has charge of the reconstruction of the Conservatory into a modern greenhouse and classrooms. The white paint has been mostly removed from the glass roof of the dome and the walls in order to improve the appearance of the building. At the same time all the iron framework and the bolts in the dome have been tested and the whole building has been found safe. Old and broken lights are being replaced by new ones so

that the Conservatory will again be a showplace on the campus instead of an eyesore.

The two wings of the structure are already being used as classrooms—that on the west is used by a class of one hundred students in "Plant Propagation". The East Wing is allocated to the soils and entomology classes.

The main dome and the connecting wings are to be converted into an horticultural exhibit of rare plants. This will be open to visitors.

The Conservatory has until this month been a repository for all the tropical and peculiar plants accumulated by the University from al parts of the world. A great many rare orchids, ferns, palms and water lilies have been located thee. Due to inattention however these plants have become scaly and unfit for laboratory investigations.

While the Conservatory is being rejuvenated as far as possible it is certain that it will not suffice for the Agricultural Department for any length of time. A committee composed of Professors Wickson and Setchell and Mr. Lipman, was appointed last November to investigate ways and means for new greenhouses and agricultural laboratories. It is expected that an appropriation for this purpose will be made by the Regents.

The Conservatory also has no place in the plans for the greater university so new structures must be made in time (Daily Californian, February 8, 1912).

A 1913 aerial view of the conservatory shows the boiler room behind the rotunda, as well as what may be another green house and potting shed adjacent to the west wing. The front facade of the structure had been maintained, but clearly, a dense series of buildings and activities areas occupied the rear of the complex.

We have not yet located specific information on the demolition of the Conservatory, though based on campus maps, the most likely date is 1926. A 1924 photograph from the Blue and Gold is captioned, "From the lofty dome of the botanical conservatory or the campanile, one has a striking panoramic view of the beauty of the campus (Blue and Gold 1924:27). A 1928 aerial photograph shows the area inhabited by the Conservatory vacant.

Archaeological Testing at the Conservatory

Our search for architectural remains of the UC Conservatory began with 50cm x 50cm units plotted at five meter intervals along two East-West lines. One unit produced window glass and ceramic plant-pot fragments, and tableware ceramics, bottle and window glass fragments were recovered from another unit. At 18-20cm below surface, part of an intact brick structure was uncovered in a silty clay layer below the decomposing mulch. The following day, this unit was expanded into a 2m x 2m unit that would become part of the East Wing block excavation. We quickly found that despite

electrical line, water line, and sprinkler system intrusions, that while the topmost courses of brick had been removed, the foundation was consistently and remarkably intact, measuring three courses wide at its uppermost extent. As it was determined that the intact brick structure uncovered in the initial shovel test extended east and west, a second was placed west of the first unit. Single 1mx1m units were also placed near shovel test units in order to test areas deemed to be outside of the conservatory building. Further excavations focused on defining the wall present in Unit 1 in spatial extent and depth, with the last excavated units exposing the interior portions of the southern extent of the Conservatory's East Wing (Figure 16).
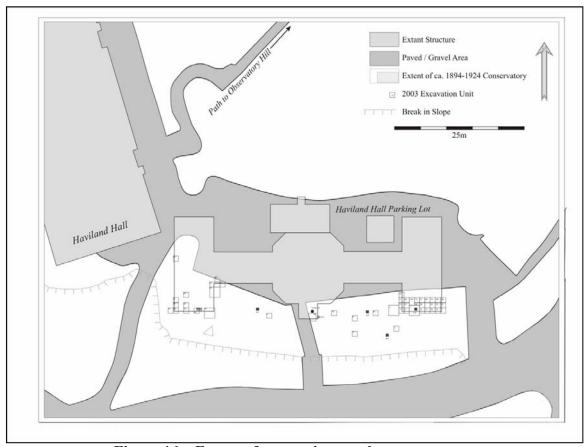
Figure 16.   Extent of excavations at the conservatory

All soil excavated from Locus A, with the exception of the mulch layer that was shoveled away before excavation, was screened through 1/4" wire mesh. Soil below the mulch layer and above the top of the extant wall was excavated as a single Level 1, which extended 10-25cm in depth and was an olive brown fill which contained a range of late 19th and early 20th century materials as well as broken glass and slate. We have interpreted this layer as a mixed deposit resulting from the removal of the building. There are high concentrations of broken plate glass throughout this level. Underlying this layer was a dark yellowish brown soil. This stratum begins at roughly the same depth as

the foundation walls begin and represents an in situ archaeo-soil. The uppermost portion of this soil contains 19th and early 20th century artifacts which, in most instances, disappear at around 35 to 40cm depth. This layer was divided into portions inside and outside of the building.

Unmarked brick and mortar fragments were sorted by color and size category, recorded, and discarded into backdirt. Water pipes (both current and historic) and electrical lines were carefully uncovered and mapped, as their intrusions through the foundation wall provide useful chronological and preservation indicators.

While we were able to uncover a large horizontal block of the East Wing foundation within the time allotted, we were unable to excavate the foundation to its full depth. In Unit I, we excavated a test pit to a depth of one meter, stopping at that depth out of OSHA concerns. At that point, we had just encountered the base of the foundation, which at that point was 14 courses of brick deep and approximately four courses wide. Given our limited time, Stacy Kozakavich, the conservatory field director, in conjunction with Wilkie, decided that it was necessary to recover as much spatial information as possible from the site, to see if preservation were uniformly good across the site and to understand as much as possible the internal and external uses of the structure. Therefore, we did not commit further resources to determining the depth of the foundation.

We excavated units to depths of 40 to 50 cm before stopping to ensure that we recovered the bulk of artifactual evidence from any given unit. Level II extended as deep as our excavations and is likely to represent the base soil the conservatory was built into. We did encounter some deposits of artifacts at deeper depths, and have interpreted these as being associated with the activities of the work crew that built the structure. Materials from earlier levels, like the abundance of terra cotta flower pots and pieces of slate from the potting tables, were clearly linked to the activities of the agricultural department.

Through the areal excavations we learned that, with the exception of the south wall of the palm house, which may or may not have been accessible under the current asphalt pathway, any foundations that were located within our testing area were well preserved. We also recovered a series of brick and cement piers on the interior of the structure that appear to be associated with the heating system used in the green houses. The contract provided by Lord and Burnham in 1893 described their obligations to constructing the heating as such, "to provide 4" cast iron pipes in nine foot lengths weighing about 11 or 12 lbs per lineal foot, to be arranged under the side tables in the various houses, consisting of about 3,000 feet, also fittings, valves, expansion tanks and other necessary appliances to complete the apparatus and control the temperature in each compartment." Further, the interior photo of the Palm and Carnation houses (Figure 14 and 15) show heating pipes resting on support surfaces resembling these piers slightly above the buildings' dirt floor.

Sixty-two square meters of site area were excavated at the conservatory (Figure 16). Of these, 28 square meters were excavated in a block, exposing a 3 meter by 9 meter section of the eastern wing (Figure 17). This excavation block was vital in our understanding of the internal layout of the wings and shaped our testing of the west wing. We found
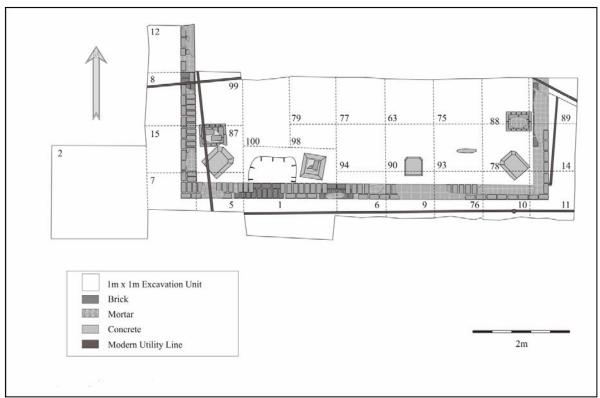
Figure 17.   Detail of excavation block in eastern wing of the conservatory

similar construction techniques in the western wing, but not identical. It may be that differences were related to internal function of the particular green houses.

Architectural remains: Building materials

Building materials recovered from the conservatory were limited to slate, glass, and iron nails.

<div align="center">

Slate

</div>

Slate was recovered throughout the excavations at the conservatory. The slate found was very fragmented. Several pieces have rust stains, indicating the contact with the cast iron frames described in documentation of the site. Slate was used in the construction of plant tables that were meant to hold potted plants, as described in an 1893 letter from Lord and Burnham to the Regents.

> PLANT TABLES.   To provide plant tables around the outside of all the compartments about three feet wide, to have wrought iron frames with gas pipe post supports, securely and neatly fastened with brackets and bolts. The bottom of tables to consist of slate about 1/2" thickness with sawed edges, in width not greater than 20" supported by light tee irons. When finished the slate and tee irons will be covered by sand or other material to retain moisture around the base of pots (RUCR 16).

The slate recovered from the excavations was mainly thinner than that documented for use in the plant tables, however, slate is very prone to lamination, and what we see archaeologically is the decayed rock.

Flat Glass

The specifications of the Conservatory according to the Lord & Burnham Company letter to the UC Berkeley Regent's state that "The houses will be glased with double thick 26 oz. C.S. glass. The sizes of the glass will be in widths of 14" and varying from 14" to 30" in length according to the curves of the houses and sizes of sash etc. The glass will be bedded in improved greenhouse putty, and securely fastened by wedged shaped zinc shoe nails."(RUCR 16) Further letters describe the curbed gables, "In the gables of the house the glass is laid with lapped joints, each lap being about ¼ inch thick. In curvilinear houses the glass is bent to fit the sharp curve of the roof. In curved eave houses it is bent to fit the curve of the eave." (Lord and Burnham 1910: 94). There is no clear indication that the glass was intended to be painted, but the company catalog notes, that "Unless otherwise specified, all glass is clear"(1910:94). Pictures indicate that some time between construction and 1886 that the glass was painted white.

Given that the structure was composed mainly of glass, surprisingly little flat glass was found during the excavation. The majority was aqua in color. Other flat glass found included green tinted; green, pink, frost, olive, blue, an additional sherds of undetermined color.

Curved glass was used in the construction of the gables, as described in the specification letter from Lord & Burnham Co.

Metal/Nails

One hundred and thirty-one nails were recovered from the West Wing of the Conservatory. All nail types found were either machine cut, wire cut or unidentifiable. Sixty-six nails were recovered from the East Wing of the Conservatory.

Industrial Materials

Burned materials, representing the by-products of industrial activities at the site, and consists of charcoal, coal and slag found on both the East and West sides of the site.

Terra Cotta Flower pots

The flowerpot sherd assemblage from Locus A, Conservatory, consisted of 1,871 items initially identified as terracotta flowerpots. Included in this assemblage were also pieces of ceramic sewer pipe and rectangular planter vessels. Most predominantly represented in the assemblage were sherds from round flowerpots.

The flowerpots represented in the Conservatory assemblage are similar to flowerpots commercially available today. These flowerpots were mass produced utilitarian vessels with a sturdy rim and a hole in the bottom of the pot for drainage. Although flowerpots represent a seemingly mundane and uniform vessel type, the assemblage of flowerpot sherds from the conservatory displays a great deal of variation. These sherds vary in type of clay and non-plastic in the paste. There is variation in style and form. Also these sherds are representative of different means of manufacture.

Further excavation would allow for the exploration of spatial differences in pot type and size in different portions of the plant houses.

Flowerpots are first and foremost evidence of gardening practices. In a Californian context they represent an attempt to appropriate British practices of formal gardening. Though seemingly straightforward, flowerpots also bear evidence of the evolution of industrial pottery, changing concepts of aesthetics and, to some extent, the Victorian concept of the biological specimen as a discrete and controllable sampling of the natural world.

Ceramics

In addition to the terra cotta flower pots discussed above, a small but significant number of additional ceramics were recovered, including teawares, plates, bowls, pitchers, bottles, jugs, and utility items. Ceramics included white earthenwares, semi-vitrified earthenware, porcelains and stonewares. A total of 80 ceramic sherds were found in around the conservatory structure. In looking at the distribution of sherds across excavation units, certain patterns became apparent, most notably, that the decorated sherds were almost exclusively recovered from contexts that were clearly outside of the structure.

Building Interior
A minimum of 11 vessels was recovered from the interior of the conservatory. These vessels were comprised of 5 teacups, three plates, one bowl, one large flatware, and one electrical insulator. With the exception of one hand-painted porcelain teacup, all of the vessels were plain or undecorated. Most of the sherds recovered from the interior of the building were thick ironstone and the sherds exhibited heavy ware and abrasion on their exteriors and interiors. This could suggest that the ceramics were used in the conservatory in ways other than their intended manufacture. The abrasion could be the result of hollowwares like the bowl or teacups being used to scoop soil or to mix fertilizers. The plates could have also been used in similar ways, or used under larger pots for drainage. It also possible that broken ceramics were used to prevent water from draining through the bottoms of flowerpots, similar to the way that small stones are used. However, if this were the case, I would expect to see evidence of water-wear on the ceramic glaze. The grayed ironstones found in the building interiors were most popular nearly 25 years prior to the construction of the conservatory (Majewski and O'Brien 1987), a circumstance that would also suggest that these materials may have been

enjoying a different use-life in the conservatory setting. Ceramic sherds recovered from the interior of the building were not concentrated in any particular area, but found throughout each of the three building components tested—the east and west wings, and the western green house connecting the west wing to the palm house.

Two ceramic sherds bearing manufacturer's marks were recovered from the building interior. The first was a "John Maddock and Son" mark that was used from 1891-1914; the second was a "R. Cochran and Co." mark used from 1846 to 1918 (Godden 1964).

Building Exterior
Ceramics recovered from the building exterior comprised a wider range of vessel forms and decorative types. A minimum of four saucers, four bowls of varying sizes, one bottle, five crocks, one pitcher, one plate, three teacups and one platter were found, representing a minimum of 20 vessels. The large stoneware crocks showed no evidence of burning, and may have been used as planters or for storage on the building exterior. Compost, fertilizers, bulbs, or any other number of things related to the plant houses could have been stored in these vessels. Likewise, it would not be difficult to imagine the pitcher being used for watering exterior potted plants. While ceramics were recovered throughout the exterior area of the structure, there is a clear association of ceramics with the immediate exterior of the structure, particularly along the west edge of the east wing and the eastern edge of the west wing. Tablewares and teawares were among the vessels found in these areas. It may be that these ceramics were used by those persons who worked in the plant houses. Interior photographs available from the plant houses suggest that there would have been limited space to eat in the structure. Perhaps benches were once located in these areas, or perhaps the exposed strip of brick foundation served as a seat for diners. Four of the 12 tablewares most likely to have been used for food consumption were of Japanese or Chinese manufacture. These mass-produced porcelains were the least expensive ceramics available (Schroeder 1971), and as a result, the most likely to be used within the workplace or when picnicking, since if they broke, they could be easily and cheaply replaced. None of the patterns on the ceramics matched any other example. Again, if these were vessels brought to work to consume from, a diversity in decorative styles would facilitate keeping one person's ceramics separate from another's.

One sherd was recovered from the exterior that bore a manufacturer's mark. The distinctive crossed arrows of the German porcelain-maker, Meissen, was found on one particularly fine porcelain sherd. This mark has been used for so long that it has no usefulness for dating.

Indeterminate

A minimum of an additional four vessels: one bowl, two saucers and one Albany slip jug were recovered from the Conservatory, but because the sherds representing these vessels were recovered from the upper level of units that spanned the interior and exterior, we cannot be sure if their initial context were within or outside of the structure.

Summary

The non-flowerpot ceramics recovered from the conservatory were not abundant, but even with a small sample size, there is some indication that ceramics were used differently in the interior and exterior spaces of the conservatory. It is also likely, based on the composition of the assemblage, that ceramic vessels were employed in the different work-tasks of running the conservatory. A small number of the vessels seem to have been deposited as a result of food consumption activities by employees or other visitors to the conservatory. The mismatched and generally inexpensive nature of the assemblage, however, suggests that there were no large-scale organized food consumption events taking place at the conservatory.

Glassware

Container and other curved glass was recovered in significant amounts from units excavated around the Conservatory foundation at Locus A. Outside of the building foundation, excavators recovered an embossed jar base made by Ben Schloss of San Francisco, which will be discussed below. A small concentration outside of the building in the West Wing, includes four base fragments from one machine-made amber bottle (probably a beer bottle) with amber body sherds. Colorless glass dominated the glass collection in Level 1 of Locus A. Aqua followed in frequency, with amber comprising 8% of the collection, and blue, olive green, dark green, and manganese-tint fragments each make approximately 3%, while less than 2% of the collection consists of each green, opaque white, and multi-colored glass fragments. Fewer glass fragments were located in Level 2 of Locus A, with a total of 134 fragments dominated by colorless, aqua, and amber.

Two identifiable containers were recovered from Locus A. The nearly complete base and of a colorless jar recovered outside of the building foundation, bear the embossed marking "BEN SCHLOSS… MA…T…R…PATENTED FOR…. S.F. CAL…" This base belonged to a "Golden State" Mason Jar manufactured ca. 1910 by the Illinois Pacific Glass Co., of San Francisco (Toulouse 1969: 135-6). Review of the Crocker-Langley San Francisco City Directory issues between 1899 and 1930 indicated that the Schloss Crockery Co., whose president Benjamin Schloss held the patent for this style of jar, operated as container manufacturers between 1899 and 1925. "Golden State Mason" jars are specifically mentioned in issues from 1915 (1695), 1920 (1400), 1921 (1332), and 1925 (1647). By 1930, the company exclusively distributed Western Clock Co. products, including the popular "Big Ben" line of clocks.

Three fragments outside of the building foundation, are parts of a colorless, embossed 6.5oz Dr. Pepper bottle. Based on the "clock" motif with hands pointing at 10, 2, and 4 we identified the bottle as belonging to promotional campaigns used by Dr. Pepper's manufacturer between the late 1920s and 1950s. Consumers were encouraged to have a Dr. Pepper, or "Drink a Bite to Eat" at 10:00am, 2:00pm, and 4:00pm to help revive their lowered blood sugar (Dr Pepper/Seven Up, Inc. 2003). Based on this late date relative to the 1924 demolition of the Conservatory, and the fragments' proximity to copper water

pipes which cut through the brick foundation, it is most likely that the bottle was deposited in a pipe installation trench at some point after the conservatory had been demolished.

Density of glass sherds on the inside of the structure in the East Wing is approximately 6 pieces/m^2. Outside, adjacent to the structure there is a density of approximately 21 pieces /m^2, including two identifiable marked containers: a Dr. Pepper Bottle and a Mason Jar base. Corresponding densities were not calculated for the West Wing, as a much smaller number of units were excavated both inside and outside of the building. Further, a meaningful Minimum Number of Vessels was could not be calculated for either the East or West wings, due to the high level of fragmentation of the collection.

A small number of artifacts may represent work-related activities at the Conservatory. Glass tube fragments may have been related to drip irrigation systems utilized in plant care. Similarly, a thermometer fragment may have been part of the Conservatory staff's climate-control measurement activity inside the building. Manganese-tinted fragments from a heavy pressed-glass lamp base and a beaded lamp-globe rim fragment represent indoor lighting prior to, or in addition to, installation of electric lights.

Taken as a whole, the container/curved glass assemblage from Locus A presents no overwhelming evidence that commercial products sold in glass containers had an important social role in use of the Conservatory. The single vessel which conclusively dates to the building's use-life, the Ben Schloss jar base, could represent a variety of activities, from food transportation and storage to rooting of plant cuttings. The predominance of amber and aqua colored glass over other colors (excepting colorless), and the low number of represented vessels, suggests that beverage containers from beer or soda were incidentally deposited by individuals working on or passing over the site. There is no evidence for organized social activities with large amounts of beer or wine, nor are there identifiable sauce or condiment bottles that might suggest picnicking or regular eating in the areas excavated. These results are not surprising, considering that the excavated portions of the building foundation represent only the front area of two of the terminal plant-houses. We expect that, given the opportunity to investigate work areas in the rear of the conservatory, adjacent to the potting shed and lath house, we would observe the remains of more regular individual, incidental product use and refuse deposition.

Small Finds

Several clothing-related items were recovered from the Conservatory. Among them was an unusually large gold jewelry clasp. It has an intact loop that would attach to a chain. Based on its size and shape of the clasp, it is likely that this clasp connected to a watch chain (Amory 1970).

Two glass beads were recovered from the Conservatory. The first is a turquoise colored bead, shaped as a tetrahedron. This bead is similar to beads produced out of Germany and Bohemia during the first part of the 20th century. The second bead is a spherical red glass

bead. Both of these beads are typical of those used in necklaces during the late 19th and early 20th centuries (Romero 1998).

A brass button emblazoned with the California state seal was found. The Waterbury Button Company of Connecticut manufactured these buttons for the California National Guard (Albert 1949: 352; Albert 1969: 120). The front of the button depicts Minerva seated and holding a staff with the motto "Eureka" above her head. "Waterbury Button Co / Extra is inscribed on the back around the edge. Unfortunately, these buttons have been in production from as early as the 1860s until the 1960s.

A possible pendant was found although there is no evidence of how it would be suspended in order to be worn. The carved design is worn making it difficult to distinguish anything but a vague human form, possibly a saint figure. The material has not been positively identified, but it appears to be either an early plastic or rubber.

Unit 18 Level one yielded a brass shell casing. It is a Winchester 32 Special made by the Union Metallic Cartridge Company of Bridgeport Connecticut. The 32 Special was introduced in 1902 and by 1965 ranked number four in popularity, making it a very common cartridge for deer hunting (Hawks 2003).

Four glass marbles were recovered from the conservatory. All were recovered from the first level of excavation, corresponding to the demolition and post-demolition use of the site. Two of the marbles bear single pontil marks typical of early machine manufactured marbles. One of the marbles exhibits the "diaper fold" pattern in its swirl, another indicator of early machine manufacture (Grist 2000). These marbles are the earliest examples recovered from the site and would not have been produced until the early 1920s, and were probably lost after the demolition of the conservatory. Unit 94 level one contained a later machine-manufactured glass marble with an opaque white base with yellow and green swirls. This particular design is common and was made by several companies and is still made today (Grist 2000: 84). A cat's eye marble was recovered. This ubiquitous marble type was not introduced until the 1950s (Grist 2000). The marbles recovered from the conservatory, therefore, are all likely to be the result of post-occupation reuse of the site by children. Among the anthropology graduate students is a life-long Berkeley resident who remembers going to the area around "the old houses on observatory hill" to ride bikes and play with friends in the 1970s and 1980s. Based on archaeological evidence, the former location of the conservatory has drawn children to it as a play area from a much earlier time.

Perhaps one of the more amusing post-occupation discoveries was a plastic contact lens case with the lenses still inside found in level one of Unit 1. The doctors at the Optometry center on the University of California campus have kindly looked at the lenses for us. They believe that the lenses date from the late 1950's to the early 60's. The case is cylindrical in shape with screw lids on either side in blue and white. Each lid has "Hydra-Kit" and an L or R inscribed on it. The lenses are not gas permeable but probably sorely missed by their owner after being lost.

Zooarchaeological remains

Identification of faunal remains took place in the Historical Archaeology laboratory of the Anthropology Department at the University of California, Berkeley. Identification was assisted with the aid of a type collection prepared and maintained by Dr. Laurie A. Wilkie of UC-Berkeley, as well as specimens housed in the Museum of Vertebrate Zoology, UC-Berkeley. Where applicable, identifications were made to species level. However, a number of specimens could not be identified beyond genus (or in some cases, Order) and are indicated as such.

Of the unidentifiable bone, most are considered to be of the Class Mammalia. No fish or reptile remains were clearly identified.

At total of 76 fragments of faunal bone were recovered from excavations at the UC Conservatory. The taxa identified include cattle (*Bos taurus*) and sheep (*Ovis aries*). On the Order level, some medium-sized Artiodactyl (Order Artiodactyla) specimens were also identified; these likely represent a sheep/goat or deer. There were no definitive identifications of reptile or fish remains at the UC Conservatory. All faunal remains falling into Class Aves were recorded as 'identifiable' though no further taxonomic identification was made.

Because of the low number of identifiable bones, there is no clear dominating species in this assemblage. Of the specimens identifiable to Genus, cattle remains are the most prevalent. These appear to represent typical market cuts of meat as do the sheep remains identified. During this period historically and at this particular location, it is highly unlikely that these animals would have been kept on site.

Very few of the fragments exhibit any signs of heat alteration. No bones show definite calcination or carbonization. Only 7 fragments represent incomplete oxidation, one bone is unburned, and the remaining fragments are all indeterminate. The indeterminate category refers to bones that could be heated in some way, but it is unclear. These typically appear as polished, flaky, or slightly browned bones.

No rodent or carnivore damage was observed. Several different butchery methods were observed, however. Butchery marks include knife cuts and sawn bone. Approximately 32% of the bone exhibit butchery marks. The cattle specimens and unidentified medium-large mammal remains yield the majority of butchery marks.

Based on the dearth of faunal remains, it is difficult to assess the use of animals at the Conservatory site. That animal bones were recovered from this site in and of themselves is unique, given that this was a campus building and not associated with daily living activities. It is possible that some of the remains represent the disposal of food from occasional social events or gatherings held at the Conservatory. They all appear to be typical market cuts of meat and do not represent overly large quantities. It is unlikely that food was consumed at the Conservatory on a regular basis and the faunal remains recovered from this excavation likely represent unique occurrences.

Summary of Excavation and Materials Analysis

Excavations at the conservatory demonstrated that the site has outstanding architectural, artifactual, and ecofactual materials. While the area excavated was spatially limited (Figure 18), even in this small sample size, the potential for looking at differential activity areas through the archaeology is clear. The limited ceramic, glass, and faunal data available suggests important differences in the uses of the internal and external spaces of the conservatory. The exterior of the building provided workers in the plant houses as well as the broader university community with a social space in which to eat and drink. The difference in the distribution of decorated and undecorated ceramics on the interior and exterior of the building gives some suggestion of how communal versus personal goods may have been distinguished among the workers. The recovery of small personal items, like buttons and jewelry bits speak to the presence of visitors at the site as well. One would hardly expect plant house workers to be wearing National Guard attire.
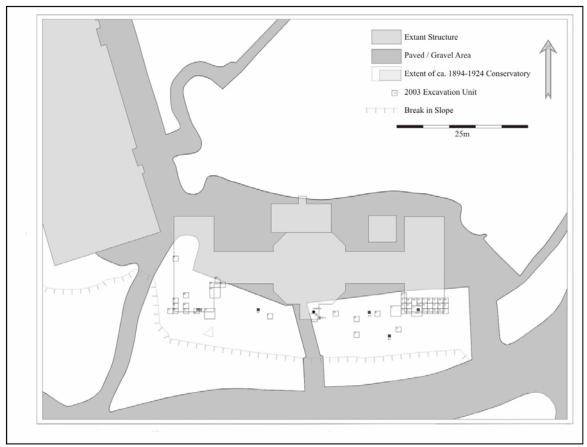
Figure 18.   Portion of the conservatory excavated versus area likely to still be preserved

Artifacts also speak to the workings of the plant houses. Coal and slag speak to the task of maintaining the temperature of the hot houses, as well as possibly the preparation of fertilizers or other soil additives. As mentioned before, the architectural form of the conservatory seemed to clash with the intentions behind it of being a research facility. For Hilgard, himself a product of the Victorian era, perhaps this contradiction was not obvious. He was a man who ushered in a scientific revolution in soil sciences, yet also felt that to be a great institution, Berkeley must have plant houses equivalent to the great palm houses of Europe. There is no clear evidence that Hilgard saw these structures as intrinsically important to his research as to the university's image. We could see Hilgard's attitude as an extension of a collecting mentality. Yet, despite this contradiction, the plant houses were ultimately areas of research and instruction as well as sites of collection.

The flowerpots provide some insight into this dual function. The diversity of pot types and sizes suggests diverse origins for the plants they contained. At least some of the specimens could have been brought to the conservatory in pots originating elsewhere. Yet the pot analysis also shows that a larger portion of the assemblage demonstrates uniformity in stylistic appearance. Certainly, the photograph of the inside of the carnation house demonstrates this organized, uniform, kind of pot assemblage. These identical pots can be seen, as alluded to by Shaw in his discussion, as representative of the scientific endeavor.

The materials recovered from the site demonstrate that there are preserved deposits at the site that have the potential to answer significant research questions about the social history of the University of California, Berkeley. In particular, the site dates to an important time of transformation in the University's development from a small college to an internationally renowned research institution.

SECTION IV: EVALUATION OF THE RESOURCES

The archaeological resources recovered at the three loci were evaluated for significance using the criteria outlined under the California Environmental Quality Act (CEQA) and in accordance with California Code of Regulations, Title 14, Chapter 3, 15064.5. Modifying the criteria for the National Register of Historic Places, the California Register defines a historical resource as being significant if it:

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

Most archaeological sites deemed significant fall under Criteria 4. In addition to meeting one of the above criteria, the resource also must have demonstrated integrity. In the case of archaeological resources, this means that the deposits must be in situ.

Locus C

Historical documents demonstrated that there were no major structures located in this portion of the proposed project area. Testing was conducted to ensure that there were no previously unrecorded prehistoric or historic uses of this area. Shovel testing demonstrated that there were no intact archaeological deposits in this area. The few artifacts recovered during testing had eroded down from Locus B, the Student's Observatory, or remnants of isolated dumping of materials from Locus A, the Conservatory. None of the materials recovered were in a primary context and have no archaeological significance. **No significant archaeological remains are threatened by construction in the area of Locus C**.

Locus B

Locus B corresponds to the complex of buildings and associated yard spaces of the Student's Observatory. Unlike the Lick Observatory, which was the site of significant faculty research, the Student's Observatory was primarily a facility used by undergraduate and graduate students. The seismograph, the first of its kind in the western hemisphere, was also housed at the facility. The research and teaching programs developed at this location, as well the association of office spaces within the complex with famous faculty persons, made the site potentially eligible for inclusion on the California Register under criteria 1 and 2. Given the proximity of the complex to the proposed project area, the Student's Observatory was archaeologically tested for potentially significant deposits. Forty-one square meters were excavated in this area in order to determine whether significant archaeological remains associated with the late 19th and early 20th century astronomical observatories that once stood on the site are present. During excavation, it was revealed that extensive earthmoving, probably during the construction of McCone Hall, had irreparably damaged any archaeological remains associated with the astronomical observatories, classroom spaces and yard areas associated with the Students' Observatory. **There are no significant archaeological resources preserved in this area.**

While there are no intact archaeological remains associated with the site, there is a rich documentary record associated with the Students' Observatory which is preserved in collections in the University Archives, the Daily Cal newspapers, and in departmental scrapbooks held by an emeriti faculty member of the Astronomy Department. In addition, there are some architectural remains as well. The southern wall of the original Student's Observatory structure, constructed in 1885, still stands. In addition, a granite pillar, used by astronomy students to learn surveying techniques, still also stands in its

original location. As a remnant of one of the University of California's earliest campus structures, even in its semi-demolished condition, the pillar and standing wall are potentially eligible for inclusion on the California Register, and should be protected by the campus.

Locus A

Based upon the analysis of artifacts recovered from the structure, these deposits have already yielded significant historical information about this structure and its role within the social and intellectual space of the University of California at an important time in its past, and certainly has the potential to yield further information. In terms of the research questions posed by this project, materials recovered from the site are providing some answers to each of the four research questions posed by the project. In addition, the conservatory was built under the direction of Dr. E. W. Hilgard, the leading soil scientist of his time, and a person still widely seen as the father of his discipline. The structure may provide insights into particulars of Hilgard's research.

It is likely, given the state of preservation in the area not capped by asphalt, that the structure is well-preserved under the parking lot. **The site is a rare example of a 19th century structure and its associated archaeology preserved on the University of California campus, the first public university in California. The site is also associated with a person important on the local and national level. The site is, therefore, eligible under Criteria 1 and 4 for inclusion on the California Register.**

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APPENDIX E
HAZARDOUS MATERIALS

This appendix contains supplementary information regarding UC Berkeley safety programs, and federal, State and local laws and regulations governing hazardous materials.

E.1 UC BERKELEY SAFETY PROGRAMS

This section describes the UC Berkeley programs that have been established to protect the health and safety of the campus community and the public. The Office of Environment, Health & Safety (EH&S) at UC Berkeley has primary responsibility for creating and maintaining these programs to provide safe conditions for the campus community in compliance with related standards and regulations. EH&S technical staff has expertise in industrial hygiene, toxicology, chemical safety, radiation safety, physical safety, biohazard safety, hazardous waste management, animal care, and environmental protection.

UC Berkeley has exhibited a long-standing commitment to excellence in the areas of the environment, health, and safety, which is demonstrated by its proactive approach to these issues. The staff has put numerous programs in place, voluntary and mandatory, that not only meet but at some levels exceed compliance standards. Voluntary programs have included, for example, a structural Integrated Pest Management program established in the 1970s that resulted in a substantial reduction in pesticide use at UC Berkeley. In addition to employing biological and source controls, the program instituted policies such as reviewing building and landscape designs for their resistance to insect and animal pests. In another voluntary program, the Physical Plant–Campus Services (PP-CS) adopted less toxic cleaning agents to reduce occupational exposure and minimize waste. Mandatory compliance measures and programs are discussed below.

UC BERKELEY SAFETY PROGRAMS FOR NON-RADIOACTIVE HAZARDOUS CHEMICALS

TRANSPORTATION AND STORAGE OF HAZARDOUS MATERIALS

Hazardous and costly spills and injuries may occur if safe transportation procedures are not used. Safe transportation procedures are outlined in the EH&S Fact Sheet entitled *Transporting Chemicals Safely on Campus*.[1] Specific procedures for safe chemical transportation include the use of secondary containment and other acceptable practices. A separate EH&S publication, *The Move Manual: A Guide to Relocating Hazardous Materials*[2], sets forth procedures for moving an entire laboratory.

U.S. Department of Transportation regulations apply when hazardous materials or wastes are transported off-campus. These regulations include restrictions on packaging, labeling, and authorized drivers. EH&S staff members are trained in the Department of Transportation (DOT) regulations. They oversee all off-campus shipment of hazardous waste and assist in preparing hazardous materials for off-campus shipment. EH&S Radiation Safety is responsible for proper receipt, shipping and transportation of radioactive materials in accordance with DOT, State law, and the campus radioactive materials license.

Safe and proper storage of hazardous materials in laboratories is the responsibility of the principal investigator or laboratory manager. Requirements governing storage of hazardous materials include inventory and labeling, material compatibility, seismic safety, secondary containment, and spill protection. In addition, State building codes and fire codes contain specific requirements that must be observed for hazardous materials storage. In 1999, a state-of-the-art hazardous materials facility was completed to consolidate, package and ship hazardous waste for up to 90 days.

The EH&S booklets *Safe Storage of Hazardous Chemicals*, *Guidelines for Explosives and Potentially Explosive Chemicals – Safe Storage and Handling*, and Fact Sheet *Storage of Flammable Liquids in Laboratories*, and other publications available on the EH&S website provide details on safe hazardous materials storage practices. [3] EH&S performs periodic site inspections to ensure that current chemical storage procedures are practiced.

The *Radiation Safety Manual, Radiation Safety Logbook*, and related documents and training provide guidance in the safe storage and labeling of radioactive materials. EH&S performs routine inspections to verify proper storage and labeling.

HAZARDOUS MATERIALS USE

Safe use of hazardous materials at UC Berkeley begins with EH&S but ultimately rests with the people who use the materials. EH&S issues guidance and fact sheets, evaluates departmental activities, and disseminates general information regarding the handling, storage, and disposal of hazardous materials and wastes. Every department is responsible for developing and maintaining a department safety program, with EH&S available if needed for assistance. EH&S is responsible for providing instruction and assistance to departments in the form of training, hazard communication, groundwater protection measures, and underground and aboveground storage tank programs.

TRAINING PROGRAM. UC Berkeley policy requires that all employees involved with hazardous materials handling undergo training. EH&S is responsible for providing information to the campus community, through established communication channels, on programs, regulatory impact and compliance requirements, and for developing and overseeing programs to be implemented by the campus to meet legal requirements and EH&S policies. The departments are responsible for ensuring that workers are trained to identify, avoid, and mitigate potential environmental health and safety hazards. EH&S provides training programs, guidelines, booklets, fact sheets, videos, and a thrice-yearly newsletter to update workers on safety matters.

In addition, EH&S has a matrix available on its web site detailing the programs and training mandated by law as well as the criteria for workplace conditions that would require training. EH&S provides training and expertise in many environmental health and safety topic areas. Training areas covered by EH&S include:
- Asbestos awareness
- Biological safety cabinet use

- Chemical inventory software
- Eye safety
- Fire and life safety
- Food sanitation
- Forklift and lift truck safety
- Fume hood use
- Hazard communication
- Hazardous waste disposal and minimization
- Injury and illness prevention
- Laboratory safety
- Respiratory protection
- Radiation Safety
- Laser Safety

Training programs and annual refresher courses are compulsory for individuals whose workplaces can potentially expose them to hazardous materials.

HAZARD COMMUNICATION PROGRAM. UC Berkeley has established a Hazard Communication Program for hazardous materials used outside of a laboratory (for hazardous materials used in laboratories, see below), in accordance with State "employee right-to-know" regulations. The program is designed to help maintain a healthy work environment by increasing employee awareness of workplace chemicals and their potential health effects, safe work practices, and emergency procedures. The Hazard Communication Written Program is available on the EH&S web site.

Under the program, each hazardous substance used by the departments must be listed on the department's "Hazardous Chemicals Inventory," and a copy of the list must be submitted to EH&S at least annually. To facilitate the process, the information can be submitted to EH&S electronically to update the EH&S Chemical Inventory database. EH&S provides oversight to assure that inventories are updated whenever a new hazardous material is brought into the workplace.

Material safety data sheets (MSDSs) contain hazard and precautionary information required by the Hazard Communication Standard. The University requires that the MSDSs are kept for each hazardous substance listed on the department's Hazardous Chemicals Inventory. The most current MSDSs supplied by the chemical manufacturer or distributor are kept on file and made accessible to all employees, their representatives, and contractors for viewing or copying during each work shift. Departments are required to maintain paper copies of MSDSs either in individual workspaces or centrally within the department. In addition, EH&S maintains a collection of duplicate MSDSs electronically. EH&S subscribes to an online service which provides electronic versions of MSDSs for most chemicals purchased by the University.

CHEMICAL HYGIENE PLAN. Cal/OSHA (Title 8 CCR Section 5191) requires all laboratories to have a Chemical Hygiene Plan (CHP) containing Standard Operating Procedures (SOPs) relevant to safety and health considerations. UC Berkeley has established SOPs for common activities and requires laboratory-specific SOPs for hazards not covered by the campus-wide procedures. EH&S periodically reviews lab-specific SOPs and verifies that proper training has been documented in the CHP.

CHEMICAL INVENTORY DATABASE. UC Berkeley has developed a database that helps the University track its inventory and use of hazardous materials. The UC Berkeley Chemical Inventory (CI) database is used to track regulated substances to comply with chemical inventory, CalARP and other requirements. The CI database inventory includes quantities and locations that are updated continuously regularly as well as a chemical index that includes regulated substances listed by local, state, and federal agencies.

UC Berkeley uses the CI database to evaluate compliance with CalARP through a four-step process. Each step looks increasingly critically at the quantities of regulated substances handled. The first step examines only if a quantity of a particular listed regulated substance exists within the reporting area. If not, the substance will not appear on the report. The second step examines the distribution of a single chemical by building. The third step examines the distribution of a single chemical by room within a building. The last step involves an interview with the inventory taker to more accurately assess the situation, including the inventory amount and the concentration of the material in question. This process provides a detailed chemical and location approach to identifying and controlling potential releases before they occur and thus preventing possible accidents.

RADIOACTIVE MATERIAL DATABASE. UC Berkeley has developed and maintains an inventory of radioactive materials on the campus. This inventory is used to verify compliance with the campus radioactive materials license requirements.

TOXIC USE REDUCTION PROGRAMS FOR CAMPUS FACILITIES. UC Berkeley has taken proactive voluntary steps to reduce the use of toxic substances in maintenance and operations of facilities. An Integrated Pest Management Program was started in the early 1970s that emphasizes the use of parasites, trapping, habitat modification and education over the use of pesticides to control pests such as cockroaches, fleas, rodents, and silver fish. This program has resulted in the reduction in use of chemical pesticides by 100 percent in university housing and research facilities, and by 95 percent in kitchens. In addition, EH&S specialists review all new building designs for their ability to structurally resist pests as well as landscaping plans to make sure that the proposed landscaping would not create conditions that could harbor pests.[4] Custodial operations have also switched to environmentally friendly cleaning products, reducing both the use of toxic cleaning products and their waste stream.

ABOVEGROUND STORAGE TANK SPILL PREVENTION CONTROL PROGRAM. In California, owners and operators of aboveground storage tanks (ASTs) must comply with State and federal regulations pertaining to oil spill prevention and aboveground petroleum storage. Facilities are subject to these regulations if they operate any tanks with a capacity of 660 gallons or greater, or if the total facility capacity exceeds 1,320 gallons. The daily management of fuel tanks supplying emergency generators is the responsibility of PP-CS. The Spill Prevention Control and Countermeasure (SPCC) plan is aimed at identifying possible spill scenarios and developing safeguards against such occurrences. Tanks are frequently visually inspected by campus PP-CS personnel as part of their normal duties. Any sign of deterioration or leakage that might cause a spill or accumulation of fuel oil on the concrete pad or inside an impounding basin is immediately reported to PP-CS supervisors. PP-CS personnel record monthly tank inspections on a checklist. This checklist requires the operators to inspect and record the conditions of the ASTs and pipings. Additionally, personnel are taught spill prevention and response and other safety measures through classroom and field training.

UNDERGROUND STORAGE TANK MONITORING AND RESPONSE PROGRAM. Although PP-CS is responsible for the day-to-day operations of the underground storage tanks (USTs) and for ensuring that the UST program meets and continues to meet operational requirements, it is not the sole party responsible for maintaining the UST program. University departments that own tanks for research or vehicle fueling also are responsible for those tanks and for routine monitoring, emergency response, and corrective action. Monitoring activities include weekly visual monitoring of the tank and piping with a written record of each inspection. Visual monitoring directly examines all exposed sections of the underground tank system including aboveground piping. Non-visual monitoring is mostly quantitative and can consist of manual tank gauging, automatic tank gauging, etc. UC Berkeley additionally carries out general integrity tests, such as tank integrity tests, piping integrity tests, and systems certification activities on all of their USTs.[5]

UC BERKELEY SAFETY PROGRAMS FOR HAZARDOUS WASTE

MANAGEMENT AND HANDLING PROGRAM

Strict environmental laws govern the disposal of all hazardous wastes. Unwanted hazardous materials may not be discharged into the environment, poured down the drain, or disposed of in the municipal trash. EH&S picks up hazardous materials for proper disposal after users properly package and label unwanted items. Guidelines for proper packaging and labeling of unwanted hazardous materials are described in the EH&S publication *Unwanted Hazardous Chemicals*.[6]

CHEMICAL EXCHANGE PROGRAM

UC Berkeley has established a program to minimize the disposal of hazardous materials that are potentially still usable. The Chemical Exchange Program (CHEX) is an online database that uses the Internet to facilitate the redistribution of unwanted chemicals to UC Berkeley faculty and staff members who can use them. EH&S collects unwanted chemicals when it receives Material Packing Lists from laboratories and facilities. After assessing the unwanted chemicals, staff members put the potentially useful chemicals on the CHEX list of available chemicals. CHEX allows UC Berkeley researchers to search for chemicals they

need, which are then redistributed by EH&S free of charge. The original owners receive a credit on their Hazardous Waste Recharge Account, equal to the amount of disposal cost. This program is being increasingly utilized by UC Berkeley researchers. In 2003, more than 160 chemicals were redistributed to users and kept out of the waste stream.[7]

WASTE MINIMIZATION PROGRAM

In compliance with the State Hazardous Waste Source Reduction and Management Review Act of 1989, UC Berkeley established a comprehensive waste minimization program in 1991. Unwanted hazardous materials and hazardous wastes produced at UC Berkeley are brought to the Hazardous Materials Facility and sorted by EH&S technical staff. Usable materials are identified for re-use and redistribution. Hazardous waste is packaged for transportation to a permitted hazardous waste treatment, storage, or disposal facility according to the Department of Transportation, Resource Conservation and Recovery Act (RCRA), and California Department of Toxic Substances Control requirements.

Table 4.6-1 in Chapter 4.6 shows the reduction in routinely generated hazardous waste since 1990 due to implementation of UC Berkeley's waste minimization program. The total weight of routinely generated hazardous waste in 2002 for the Main Campus totaled approximately 137,707 pounds, a reduction of over 53 percent from 1990 levels.

UC Berkeley updated its hazardous waste source reduction plan in 2002 to continue implementation of the ten source reduction measures. These measures are both operational and administrative in approach. Measures include the following:

- training professors, students, and staff on hazardous waste source reduction
- developing source reduction policy
- upper management commitment to source reduction
- information exchange
- inventory of chemicals
- surplus chemical exchange
- comprehensive waste tracking system
- disposal cost recharge program
- reduced volume used in experiments; and
- mercury reduction program

Because of their technical and institutional feasibility, these measures have proven successful in decreasing the amount of hazardous waste generated and protecting employee health and safety.

RADIOACTIVE WASTE MINIMIZATION PROGRAM

UC Berkeley has established a three-part program intended to minimize the production of radioactive waste. The parts are: 1) reduction in use, 2) strict segregation of radioactive wastes from other wastes, and 3) storage for decay and disposal program.

UC BERKELEY PROGRAMS FOR BIOHAZARDOUS MATERIALS

CHANCELLOR'S ADVISORY COMMITTEE ON LABORATORY AND ENVIRONMENTAL BIOSAFETY

The Chancellor's Advisory Committee on Laboratory and Environmental Biosafety (CLEB) is charged with the responsibility of formulating University policies to ensure the safe conduct of research involving biohazardous agents and materials. These policies, developed in accordance with guidelines set forth by the National Institutes of Health and the Centers for Disease Control, relate to facility design; containment equipment; safe laboratory practice; and training of students, staff and faculty working in the facility.

All faculty whose research involves working with biohazardous agents in animals and/or the laboratory must hold a valid Biohazard Use Authorization (BUA). BUA requirements apply generally to laboratory research involving organisms with the potential to cause human disease, and to experiments with recombinant DNA, covered by the NIH Guidelines for Research Involving Recombinant DNA Molecules. Before this authorization is issued, the animal and/or laboratory facilities and laboratory practices are reviewed by EH&S and CLEB. All BUAs involving biohazards that require Biosafety Level 3 containment and procedures are reviewed and approved by CLEB. As of 2003, there were 50 active BUAs at UC Berkeley, including two BUAs for Biosafety Level 3 work. The BUAs authorize research with Risk Group 2 and Risk Group 3 viruses, bacteria, fungi, recombinant DNA, and known HIV-positive blood samples.

OFFICE OF ENVIRONMENT, HEALTH AND SAFETY (EH&S)

The EH&S's Biosafety Program consists of three specific programs that are designed to ensure that all work involving biohazardous materials is conducted in compliance with federal and State regulations.

BIOHAZARD USE AUTHORIZATION PROGRAM. EH&S provides application forms and copies of the regulations to persons who plan to conduct laboratory work with biological materials (including recombinant DNA). EH&S also assists researchers in obtaining BUAs and meeting applicable Occupational Safety and Health Administration (OSHA) requirements.

OSHA BLOODBORNE PATHOGENS STANDARD. EH&S provides compliance assistance, technical information, training, and materials to implement the Cal/OSHA bloodborne pathogen standard at UC Berkeley. This standard requires that all laboratories and departments that work with human blood, body fluids, or tissue, develop and implement a written exposure control plan to reduce or eliminate risk of exposure to human bloodborne pathogens during research and teaching. EH&S has prepared and posted on its web site a template that researchers can use to develop a bloodborne pathogen exposure control plan. EH&S also maintains a database to track all research involving bloodborne pathogens, and ensures through annual reviews that the exposure control plans are being implemented in the laboratory.

BIOLOGICAL SAFETY CABINET PROGRAM. EH&S assists users at UC Berkeley in complying with National Sanitation Foundation (NSF) Standard 49 and Cal/OSHA ventilation requirements for biological safety cabinets and also assists users in the proper use of biological safety cabinets and laminar-flow clean benches. EH&S currently oversees the program to ensure that all biological safety cabinets used for biohazard levels 2 or above are tested annually.

OTHER RESOURCES. EH&S has also prepared and posted materials on its web site to assist researchers with biosafety, including fact sheets on using autoclaves in a safe manner, guidelines for management and disposal of medical waste, guidelines on how to relocate hazardous materials safely, sharps safety, and safety guidelines for field research.

MEDICAL WASTE MANAGEMENT PROGRAM

UC Berkeley generates medical waste (including biohazardous waste, biohazardous sharps waste, pathology waste, and chemotherapy wastes) primarily from research, animal facilities, and health services. As a large quantity generator of medical wastes, UC Berkeley is obligated to comply with the California Medical Waste Management Act, which requires that departments, units, and laboratories that generate medical waste properly manage that waste. Procedures documenting proper medical waste management are outlined in the EH&S publication *Guidelines for Managing and Disposing of Medical Waste.*[8] The publication details correct medical waste management practices such as segregation of medical wastes and proper containment, decontamination, and disposal of medical waste. Medical waste is brought to an accumulation area and placed in a proper secondary container, where it is stored until pickup by the medical waste contractor. UC Berkeley's guidelines are more stringent than the regulatory requirements, so some wastes that are not classified as medical waste are treated as such.

UC BERKELEY RADIATION PROTECTION PROGRAMS

EH&S has a dedicated professional staff that ensures that work with radioactive materials and radiation-producing machines is conducted in accordance with policies and standards set forth by the NRC and the State. A Radiation Safety Committee composed of faculty representatives with significant experience in the safe use of radiation and radioactive materials reviews the work of the EH&S radiation safety staff and sets policy.

The UC Berkeley Campus Radiation Safety Program and the EH&S radiation safety staff have implemented processes, methods, and programs intended to assure that work with radioactive materials and radiation-producing machines is conducted in such a manner as to protect health, minimize danger to life and property, meet regulatory requirements, and to keep radiation exposure to all personnel as low as is reasonably achievable.

These methods and programs include the following:

RADIOACTIVE USE AUTHORIZATIONS. Before obtaining radioactive materials, each principal investigator must apply for a Radiation Use Authorization (RUA). The RUA specifies the materials (isotopes), chemical forms, and amounts being used. The RUA also contains a general description of the authorized uses of these materials and/or machines. Each authorized user also maintains an inventory of materials received, materials on hand, and materials disposed of to the sanitary sewer. Periodically, the EH&S radiation safety staff reviews these inventories and resolves any discrepancies that arise. This review is normally performed once each calendar quarter.

RADIATION SAFETY TEAM. The radiation safety team activities include the following:
▪ Overseeing university compliance with standards and policies for radiation protection and UC Berkeley radiation safety performance, including the review and approval of all initial RUAs and renewals, and verification that RUAs are approved prior to radioactive materials being delivered or work commences.
▪ Responsibility for operation of the UC Berkeley Campus Radiation Safety Program, for assuring that use of radiation is in conformity with UC Berkeley standards and applicable governmental regulations, and for assuring that radiation exposures to both on-campus and off-campus personnel and members of the general population from radiation and radioactive material used at UC Berkeley is as low as reasonably achievable.
▪ Responsibility for the development, publication, and revision of the Campus Radiation Safety Manual, which contains license requirements and sets forth UC Berkeley radiation safety policy.
▪ Reporting radiation safety problems and issues to the Radiation Safety Committee and university management.
▪ Coordinating radiation safety issues in emergency response, including halting any radioactive operations that pose an immediate health and safety danger to the public and workers.

CAMPUS RADIOACTIVE MATERIALS LICENSE. The campus Radiation Safety Officer is responsible for developing, publishing, and revising as necessary the Campus Radiation Safety Manual (the Manual), which promulgates license requirements and sets forth campus radiation safety policy. The Manual includes statements on:
▪ The scope of the radiation control program and the activities covered.
▪ Procedures to be followed in obtaining authorization to acquire and use radioisotopes and radiation producing machines.
▪ Regulations and procedures for the storage, transportation, and disposal of radioactive materials.
▪ Responsibilities of Authorized Users for control of radiation hazards.
▪ Maximum permissible radiation exposure to personnel.
▪ Minimum requirements for posting of radiation hazard warning signs.
▪ Procedures to be followed in emergencies involving radiation.
▪ Authorization for radiation uses.

The Radiation Safety Officer is also responsible for assuring that the Manual is current or making necessary updates. Proposed changes to the Manual are approved by the Radiation Safety Committee.

RADIATION PRODUCING MACHINES. X-ray machines are the main radiation-producing machines used at UC Berkeley. Although they do not contain radioactive material, they produce ionizing radiation. In general, the use of radiation-producing machines requires the same controls as radioactive material use. Precautions are taken to limit human exposure to radiation when X-ray machines are used. All work done with X-ray machines is authorized by an RUA. Radiation-producing machines may only be operated by authorized personnel. X-ray machines (for use with animals and humans or in research) at UC Berkeley are inspected annually by the EH&S. Safety features are checked and verified to be operational and repairs are made as needed.

Radiation-producing machines are not subject to licensing by State or federal agencies; however, State regulations require registration of each machine with the state. EH&S notifies the DHS within 30 days of receipt, transfer, or disposal of ionizing radiation-producing machine. Specific methods and programs to assure the safe use of these machines are described in the UC Berkeley Radiation Safety Manual. That manual is also part of the Campus Radioactive Materials License (incorporated by reference).

RADIOACTIVE WASTE PROGRAM. EH&S is responsible for UC Berkeley's radioactive waste program. This waste program is required to conform with state and federal regulations as set forth in the Campus Radioactive Materials License, and the terms and conditions of the two radiation use authorizations which are monitored for compliance, through quarterly inspections, by the radiation safety staff.

RADIOACTIVE WASTE MINIMIZATION. EH&S with the Radiation Safety Committee has implemented a campus-wide radioactive waste minimization program that provides users of radioactive materials with methods to reduce their generation of radioactive wastes. Some elements of this program include better laboratory technologies, replacement of radioactive materials with nonradioactive materials, trial runs using nonradioactive materials, surveying materials to assess whether they are contaminated with radioactive materials, proper separation of radioactive and nonradioactive materials, and microchemistry procedures. Overall reductions in radioactive materials use have diminished radioactive wastes by over 50 percent since the early 1990s.[9]

UC BERKELEY SAFETY PROGRAMS FOR RESEARCH INVOLVING TRANSGENIC MATERIALS

RECOMBINANT DNA RESEARCH INVOLVING INFECTIOUS AGENTS

Recombinant DNA research involving infectious agents is subject to the same requirements and control programs that apply to research involving biohazardous materials (see Section 4.6). The investigator is required to obtain a BUA before undertaking such research. Infectious waste produced during research must be disposed of in a manner similar to other medical waste.

RESEARCH INVOLVING TRANSGENIC ANIMALS

For research involving transgenic animals, the investigator must register with EH&S. Research involving transgenic animals is subject to compliance with the NIH Guidelines for Research involving Recombinant DNA Molecules and the same control programs that are discussed in Section 4.6 with respect to laboratory animal use and care. The Committee on Animal Research Space Assignment (CARSA) (or OLAC; Jennifer, Karl suggests that we check with Libby) provides oversight for all aspects of transgenic animal care.

RESEARCH INVOLVING TRANSGENIC PLANTS

The Oxford Facilities Committee provides oversight to all research involving transgenic plants. This research also requires registration with EH&S and compliance with NIH Guidelines. Because of the relatively low risk involved in types of transgenic plant research conducted at UC Berkeley, controls consist of the use of segregated and screened greenhouses. Records are also maintained on the plants used in the research. A permit from the USDA is required for open field-based research involving transgenic plants.

UC BERKELEY SAFETY PROGRAMS FOR NON-IONIZING RADIATION (NIR)

It is the policy of UC Berkeley to provide a workplace safe from the known hazards of NIR by assuring compliance with federal and State safety regulations. This policy applies to all persons (staff, researchers, students, and visitors) exposed to NIR hazards on UC Berkeley property. Campus NIR policy is set by the Non-Ionizing Radiation Safety Committee. EH&S is responsible for implementing the NIR safety policies established by the Non-Ionizing Radiation Safety Committee (NIRSC). Committee members are appointed on the basis of knowledge of the hazard control principles and practices of resulting from or associated with the use of lasers and other NIR sources. The NIR Safety Program is divided into two sections: laser safety and other NIR sources.

LASER SAFETY PROGRAM

EH&S oversees and implements the laser safety program through the Laser Use Registration (LUR) Program. No Class 3a, 3b, or 4 laser may be used at UC Berkeley without a LUR. The LUR is used to assure the NIRSC that the laser use has been assessed and found to be safe. The LUR is also used to track the location, use and ownership of each laser.

NIR SAFETY PROGRAM

EH&S oversees and implements the NIR Safety Program assuring that NIR sources are used in conformity with policies set by the NIRSC. Some non-laser NIR sources include (but are not limited to) visible and invisible light sources (e. g. ultraviolet lamps, welding), microwave ovens, antennas, and static magnetic sources (e.g., MRI and NMR units).

Through inspections or request, EH&S reviews the use of these NIR sources and makes appropriate safety recommendations. Problems discovered during these reviews or inspections that cannot be resolved or are of concern are referred to the NIRSC.

EMERGENCY RESPONSE PROGRAMS

EH&S maintains an Emergency Response Team (ERT) that consists of health and safety professionals, hazardous materials technicians, and appropriately licensed hazardous materials drivers. The team is able to respond to most incidents at UC Berkeley and arranges for appropriate outside assistance when necessary. This assistance can include the City of Berkeley Fire Department, the Lawrence Berkeley National Laboratory Fire Department, and outside emergency response contractors. All ERT members have the appropriate OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) training and renew this with annual 8-hour refresher training. Currently an ERT member will be in contact with the incident caller within 15 minutes (usually much less). Site response time depends on the type of equipment needed and the location of the incident. EH&S staff also respond to radiological spills, contamination, and emergencies.

UC Berkeley periodically assesses its response time and service and makes staffing adjustments as necessary to maintain a high service level. UC Berkeley also meets periodically with the City of Berkeley Fire Department to discuss future campus planning and the city's emergency response equipment needs.

New buildings are automatically included in the campus-wide emergency response plan. This is accomplished by working with the newly appointed building coordinator to develop a new building emergency plan upon occupancy of the new structure. This plan is then provided to a contact from each department in the building. The department contacts in turn provide emergency procedures training to their staff.

E.2 REGULATORY FRAMEWORK

FEDERAL LAWS AND GUIDELINES

RESOURCE CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED BY THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984
Federal hazardous waste laws are generally promulgated under the Resource Conservation and Recovery Act (RCRA). These laws provide for the "cradle to grave" regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed.

The EPA has primary responsibility for implementing the RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. The California DTSC is responsible for implementing the RCRA program as well as California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. The DTSC has in turn delegated enforcement authority in Berkeley, including UC Berkeley, to the City of Berkeley under the Certified Unified Program Agency (CUPA) program.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980, AS AMENDED BY THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly called the Superfund program, created a national policy and procedures to identify and clean up sites contaminated by releases of hazardous substances. The law was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The EPA has primary responsibility for implementing Superfund regulations, but State agencies may be authorized to take the lead at some cleanup sites. In California, the DTSC is the State's lead agency for the federal Superfund and also enforces the State's own Superfund Law. Where groundwater contamination is the primary concern, one of the State's Regional Water Quality Control Boards may be the lead agency or a cooperating agency for the cleanup. There are no Superfund sites at UC Berkeley.

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT

The Emergency Planning and Community Right-to-Know Act (EPCRA) was adopted as Title III of the Superfund Amendments and Reauthorization Act of 1986. The law is intended to increase public access to information about the storage and use of hazardous chemicals. At the federal level, the EPA administers the EPCRA. However, some of its components overlap with State requirements (the Hazardous Materials Business/Management Plan and Accidental Release Prevention Law) that predated EPCRA, and these are implemented at the State and local level. Businesses, institutions, and other entities that use, store, or release hazardous substances in Berkeley submit most of the required information to the BTMP, the local certified CUPA.

HAZARDOUS MATERIALS TRANSPORTATION ACT

The U. S. Department of Transportation regulates hazardous materials transportation under Title 49 of the CFR. State agencies with primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. These agencies also govern permitting for hazardous materials transportation.

TITLE 29 CFR, OCCUPATIONAL SAFETY AND HEALTH ACT

The Occupational Safety and Health Act is intended to ensure that employers provide their workers with a work environment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, or unsanitary conditions. To establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for the Occupational Safety and Health Administration (OSHA). OSHA oversees the administration of the Act and enforces standards in all states.

TITLE 40 CFR PART 112, OIL POLLUTION PREVENTION

The Spill Prevention Control and Countermeasure (SPCC) plan is required by Title 40, Code Federal Regulations (CFR) Part 112. In California, owners and operators of aboveground storage tanks (ASTs) must comply with federal regulations pertaining to oil spill prevention and aboveground petroleum storage. Facilities subject to these regulations must complete a SPCC plan if they contain tanks with a capacity of 660 gallons or more, or if the total facility capacity exceeds 1,320 gallons. The SPCC plan provides an analysis of the potential for release from ASTs and the measures that could be put into place to reduce the potential of release. UC Berkeley is required to complete a SPCC plan under this regulation.

TITLE 42 CFR SELECT AGENT REGULATION

In addition to Title 29 of the CFR, which regulates worker safety in laboratories, federal laws relative to biological safety are contained in Title 42 of the CFR. Title 42 CFR Part 73, published in December 2002, implements provisions of the Public Health Security and Bioterrorism Preparedness Response Act, which requires the Secretary of Health and Human Services to regulate the possession of certain biological agents ("select agents") harmful to humans. The regulation controls the access, use, and transfer of select agents to ensure that these are shipped only to institutions or individuals equipped to handle them appropriately and only to those who have legitimate reasons to use them. The CDC is responsible for implementing this regulation; a facility must register with the CDC if it possesses a select agent or agents. The new rule updated the previous select agent rule which required facilities to register with the CDC only if they intended to transfer a select agent. Some of the select agents and toxins subject to regulation by the CDC are also regulated by USDA under 9 CFR part 121. Laboratories at UC Berkeley which possess, use or transfer select agents are required to comply with this regulation.

ATOMIC ENERGY ACT

In the United States, the use of radioactive materials is in general regulated by the Nuclear Regulatory Commission (NRC) under the Atomic Energy Act. The three major NRC rules that apply to UC Berkeley from Title 10 of the CFR (Chapter I, Nuclear Regulatory Commission) are Part 19, Notices, Instructions and Reports to Workers, Inspections, Part 20, Standards for Protection Against Radiation, and Part 30 (seepage E-14).

The following sections of the CFR apply to the UC Berkeley Campus Radiation Safety Program:
- Title 10: Chapter I, Nuclear Regulatory Commission
- Part 19, Notices, Instructions and Reports to Workers, Inspections
- Part 20, Standards for Protection Against Radiation
- Part 30, Rules of General Applicability to Domestic Licensing of Byproduct Material
- Part 40, Domestic Licensing of Source Material
- Part 55, Operator's Licenses
- Part 70, Domestic Licensing of Special Nuclear Materials

- Title 49: Chapter I, Research and Special Programs Administration, Department of Transportation

ANIMAL WELFARE ACT OF 1966

The Animal Welfare Act of 1966 (and its subsequent amendments) is the primary federal law that governs the use of animals in research, testing, and teaching in the United States. This Act is implemented and enforced by the U. S. Department of Agriculture (USDA). It provides the basis for the regulatory authority given to the USDA to ensure the welfare of animal species that are covered by the Act and used in regulated activities. The Act includes all warm-blooded vertebrates but specifically exempts all farm animals used in food and fiber research or production. The Act also exempts rodents used in research. The law defines humane care to include such factors as sanitation, ventilation, and housing.

Compliance with the regulations is ensured by the Institutional Animal Care Use and Committees (IACUC). The primary functions of IACUC are reviewing and inspecting all aspects of an institution's animal care and use program, including all animal facilities and animal care records; reviewing animal use protocols; reviewing and investigating complaints about animal use; and making recommendations to the Institutional Official. This is to ensure compliance with all regulations and policies and allows for interaction between the IACUC and institutional staff members. At UC Berkeley, the Animal Care and Use Committee (ACUC) serves as the IACUC.

U.S. PUBLIC HEALTH SERVICE POLICY ON THE "HUMANE CARE AND USE OF LABORATORY ANIMALS"

The U.S. Public Health Service (PHS) Policy on the "Humane Care and Use of Laboratory Animals requires institutions to establish and maintain proper measures to ensure the appropriate care and use of all animals involved in research, research training, and biological testing conducted or supported by the PHS. The PHS Policy is intended to implement and supplement the U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training.

NATIONAL ANIMAL WELFARE GUIDELINES AND ACCREDITATION

AAALAC International is a private nonprofit organization that promotes the humane treatment of animals in science through a voluntary accreditation program. This voluntary accreditation program is conducted in addition to complying with local, State, and federal laws that regulate animal research. By undergoing the voluntary accreditation process, the research programs demonstrate that they not only meet the minimum regulatory requirements but actually exceed them to achieve excellence in animal care and use. AAALAC International relies on the Guide for the Care and Use of Laboratory Animals (published by the National Research Council) as its primary standard for evaluation of laboratory animal care and use programs. As a condition of accreditation, AAALAC International requires correction of any deficiencies in either programs or physical facilities that they observe during site visits.

The goal of the National Research Council's Guide for the Care and Use of Laboratory Animals is to promote the humane care of animals used in biomedical and behavioral research, teaching, and testing. In this guide, "laboratory animals" refer to any vertebrate animals, including traditional laboratory animals, farm animals, wildlife, and aquatic animals. The guide serves to provide information that will enhance the well-being of animals, the quality of biomedical research, and the advancement of biological knowledge relevant to humans or animals. UC Berkeley is accredited by the AAALAC and is required to follow the guide.

HEALTH RESEARCH EXTENSION ACT

The Health Research Extension Act of 1985 provides for the establishment of guidelines for the proper care and treatment of animals used in biomedical and behavioral research, by the Director of the NIH. The guidelines require animal care committees at each entity which conducts biomedical and behavioral research with funding from the NIH to ensure compliance with the guidelines. At UC Berkeley, the Animal Care and Use Committee (ACUC) meets this requirement for research.

FEDERAL PLANT PEST ACT

The federal agencies primarily responsible for regulating transgenic materials in the United States are the USDA, the EPA, and the Food and Drug Administration (FDA). Under the authority of the Federal Plant Pest Act, the USDA Animal and Plant Health Inspection Service regulates importation, interstate movement, and environmental release of transgenic plants and organisms. The Service licenses, through permits, the field testing of food crops before commercial release. UC Berkeley researchers who plan to grow transgenic plants in field trials are required to obtain a permit from the USDA.

FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

The EPA utilizes its authority under the Federal Insecticide, Fungicide, and Rodenticide Act to regulate the distribution, sale, use, and testing of plants and microbes producing pesticidal substances.

9 CFR PART 121 AND 7 CFR 331

The Agricultural Bioterrorism Protection Act of 2002, a subpart of the Public Health Security and Bioterrorism Preparedness Response Act of 2002, requires that entities that possess, use, or transfer agents or toxins deemed a severe threat to animal or plant health or products must notify and register with the Secretary of the USDA. USDA's Animal and Plant Health Inspection Service (APHIS) has been designated by the Secretary as the Agency for implementing the provisions of the law for USDA.

CDC AND NIH GUIDELINES

The CDC and NIH have issued federal guidelines that address biological safety; because research at university campuses often involves federal funding, compliance with these guidelines becomes mandatory for most research. The CDC and the NIH have developed containment and handling guidelines for use in microbiological and biomedical laboratories. UC Berkeley has adopted these guidelines as standard practice and instituted Biosafety Levels in its laboratories.

BIOSAFETY LEVELS. UC Berkeley has adopted the most current guidelines set forth in the U.S. Department of Health and Human Services' publications *Biosafety in Microbiological and Biomedical Laboratories*[10] and *Guidelines for Research Involving Recombinant DNA Molecules*[11] to classify biohazardous agents and to determine the level of safety precautions that must be used. Four biosafety levels apply to biohazardous materials operations, depending on the risk group of the agent used:

- **Risk Group 1** agents pose minimal or no known potential hazard to laboratory personnel and the environment.
- **Risk Group 2** agents are considered to be of ordinary (not special) potential hazard and may produce varying degrees of disease through accidental inoculation, but Risk Group 2 agents may be effectively contained by ordinary laboratory techniques and facilities.
- **Risk Group 3** agents pose serious risks; therefore, work with these agents must be conducted in contained facilities using special ventilation systems and controlled access separate from public areas.
- Risk Group 4 agents pose a high risk of life-threatening disease for which there may be no available vaccine or therapy; therefore work with these agents must be conducted under the most stringent containment conditions.

Therefore, Biosafety Level 1 is for the least hazardous biological agents and Biosafety Level 4 is for the most hazardous biological agents. No Biosafety Level 4 agents or laboratories exist or are allowed at UC Berkeley. The Department of Health and Human Services guidelines describe Biosafety Levels 1, 2, and 3 as follows:

- **Biosafety Level 1** practices, safety equipment, and facilities are appropriate for [work involving] defined and characterized strains of viable microorganisms not known to consistently cause disease in healthy humans. ... Many agents not ordinarily associated with disease processes in humans are, however, opportunistic pathogens and may cause infection in the young, the aged, and immunodeficient or immunosuppressed individuals.
- **Biosafety Level 2** practices, equipment, and facilities are applicable to [work involving] moderate-risk agents present in the community and associated with human disease of varying severity. With good microbiological techniques, these agents can be used safely in activities conducted on the open bench, provided the potential for producing splashes or aerosols is low. . . . Primary hazards to personnel working with these agents relate to accidental percutaneous or mucous membrane exposure, or ingestion of infectious materials. ... [P]rocedures with aerosol or high splash potential that may increase the risk of such personnel exposure must be conducted in primary containment equipment [or devices]. ...
- **Biosafety Level 3** practices, safety equipment, and facilities are applicable to [work involving] indigenous or exotic agents with a potential for respiratory transmission, and which may cause serious and potentially lethal infection. ... Primary hazards to personnel working with these agents relate to autoinoculation, ingestion, and exposure to infectious aerosols.

BIOLOGICAL SAFETY CABINETS. Aerosol control of infectious agents or other biologically derived molecules is usually achieved by carrying out the procedure using a biological safety cabinet. There are currently three primary classes of biological safety cabinets, which are distinguished by their respective design, containment, and cleanliness capabilities.

- **Class I** cabinets are similar to conventional laboratory hoods with an open-face and negative-pressure design, but Class I cabinets exhaust through a high-efficiency particulate air (HEPA) filter.

- **Class II** cabinets, also referred to as laminar-flow biological safety cabinets, are effective in protecting operators from research materials as well as protecting research materials from external contamination. These cabinets are designed with an inward air flow to protect personnel, HEPA-filtered downward vertical laminar flow for product protection, and HEPA-filtered exhaust air for environmental protection.

- **Class III** cabinets are totally enclosed, ventilated cabinets of gas-tight construction. Operations in the cabinet are conducted through attached protective gloves.

RESEARCH INVOLVING RECOMBINANT DNA. The NIH Guidelines for Research Involving Recombinant DNA Molecules specifies practices for constructing and handling recombinant DNA molecules and organisms and viruses containing recombinant DNA molecules. These guidelines are applicable to all recombinant DNA research conducted in the United States for institutions receiving NIH funding.

In addition to Biosafety Levels for biohazardous materials, the Guidelines identify containment at four Biosafety Levels for recombinant DNA research involving plants (BL1-P through BL4-P) and small laboratory animals (BL1-N through BL4-N), and containment practices for plants, microorganisms, and animals. Recombinant DNA experiments at Biosafety Level 1 pose no significant hazard, Biosafety Level 2 experiments pose minimal hazard, and Biosafety Levels 3 and 4 involve more hazardous agents. There are no Biosafety Level 4 laboratories at UC Berkeley.

STATE AND LOCAL LAWS AND REGULATIONS

HAZARDOUS MATERIALS BUSINESS OR MANAGEMENT PLAN
Chapter 6.95 of the California Health and Safety Code requires that facilities that use, produce, store, or generate hazardous substances or have a change in business inventory are have a Hazardous Materials Management Plan (HMMP or Business Plan). The plan must disclose of the type, quantity, and storage location of materials. The law also requires a site-specific emergency response plan, employee training, and designation of emergency contact personnel.

As a State agency and large-quantity user of hazardous materials, UC Berkeley is required to submit an HMMP to the local administering agency, the BTMP. The HMMP describes hazardous materials storage and handling practices and contains procedures for monitoring storage, performing regular inspections, detecting releases, and testing of the detection systems on a regular basis. Compliance with the hazardous materials programs at UC Berkeley is verified through annual inspections.

TITLE 23 CCR, UNDERGROUND STORAGE OF HAZARDOUS SUBSTANCES

The underground storage tank (UST) monitoring and response program is required under Chapter 6. 7 of the California Health and Safety Code and Title 23 of the CCR. The program was developed to ensure that the facilities meet regulatory requirements for monitoring, maintenance, and emergency response in operating USTs. UC Berkeley operates several USTs that must meet these requirements.

ABOVEGROUND PETROLEUM STORAGE ACT

The Aboveground Petroleum Storage Act requires registration and spill prevention programs for ASTs that store petroleum. In some cases, ASTs for petroleum may be subject to groundwater monitoring programs that are implemented by the Regional Water Quality Control Boards and the State Water Resources Control Board. UC Berkeley operates a number of ASTs that are subject to these requirements.

SB 1889, ACCIDENTAL RELEASE PREVENTION LAW/CalARP

SB 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, CalARP replaced the previous California Risk Management and Prevention Program (RMPP) and incorporated the mandatory federal requirements. CalARP addresses facilities that contain specified hazardous materials, known as "regulated substances," that, if involved in an accidental release, could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive. Detailed chemical inventories maintained by UC Berkeley to comply with the Business Plan law show that it does not use regulated substances in large enough quantities to trigger CalARP requirements. UC Berkeley is therefore currently not required to submit a risk management plan.

TITLE 22, CALIFORNIA HAZARDOUS WASTE CONTROL LAW

The DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the California Hazardous Waste Control Law. Both laws impose "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. The DTSC has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other CUPAs, including the City of Berkeley.

SB 14, HAZARDOUS WASTE SOURCE REDUCTION AND MANAGEMENT REVIEW ACT OF 1989

Federal amendments to hazardous and solid waste laws made waste minimization a national policy in 1984. Under this congressional action, a Generator's Certification is required on each Uniform Hazardous Waste Manifest to help ensure that each generator of hazardous waste has a program in place to reduce the volume and toxicity of waste generated. Additional regulatory oversight was provided in State legislation, the Hazardous Waste Source Reduction and Management Review Act of 1989 (SB 14). The goal of this Act is to achieve optimal minimization of the generation of hazardous waste. Most recently, Hazardous Waste Source Reduction and Management Act Modifications (SB 1726) reduced the reporting threshold, which increased the universe of generators governed by the Act. To comply with this Act, UC Berkeley established a comprehensive waste minimization program in 1991.

TITLE 8 CCR, CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT

WORKER SAFETY. In California, Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. Cal/OSHA standards must be at least as stringent as federal standards, and they are generally more stringent. Cal/OSHA hazardous materials regulations include requirements for safety training, availability of safety equipment, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations, which include identifying and labeling hazardous substances, providing employees with Material Safety Data Sheets (MSDSs), and describing employee-training programs. These regulations also require UC Berkeley to prepare emergency action plans, including escape and evacuation procedures. Title 8 also establishes general industry safety orders for bloodborne pathogens, sharps injury prevention, and disposal of infectious wastes. All laboratories that involve the handling of biohazardous materials must comply with OSHA standards.

ASBESTOS AND LEAD PROGRAMS. The removal and handling of asbestos-containing materials is governed primarily by EPA regulations under Title 40 of the CFR but implemented by the Bay Area Air Quality Management District (BAAQMD). This program is described further in Section 4. 2. Fed/ OSHA also has a survey requirement under Title 29 of the CFR, which is implemented by Cal/OSHA under Title 8 of the CCR. These regulations require facilities to take all necessary precautions to protect employees and the public from exposure to asbestos.

The Cal/OSHA lead standard for construction activities is implemented under Title 8 of the CCR. The standard applies to any construction activity that may release lead dust or fumes, including, but not limited to, manual scraping, manual sanding, heat gun applications, power tool cleaning, rivet busting, abrasive blasting, welding, cutting, or torch burning of lead-based coatings. Unless otherwise determined by approved testing methods, all paints and other surface coatings are assumed to contain lead at prescribed concentrations, depending on the application date of the paint or coating. UC Berkeley requires contractors to implement the Hazardous Waste Control Law as well as all necessary precautions to protect employees, students, subcontractors, and visitors from exposure to lead-containing dust.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

Disposal of chemicals into the sanitary sewer is regulated by the Porter-Cologne Water Quality Control Act, codified in the California Water Code. This set of laws essentially implements the requirements of the Federal Clean Water Act and other requirements including East Bay Municipal Utility District (EBMUD) Ordinance 311 and the EBMUD Wastewater Discharge Permit issued to UC Berkeley. These laws prohibit any drain disposal of hazardous wastes and limit the allowable wastewater concentration of a number of specific hazardous substances. Federal and California hazardous waste laws permit laboratories to drain-dispose of some chemicals in small quantities that do not pose a hazard to human health or the environment. Discharge of hazardous wastes into the university sanitary sewer system is prohibited by EBMUD's drain ordinance.

EMERGENCY RESPONSE TO HAZARDOUS MATERIALS INCIDENT

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, State, and local government and private agencies. The plan is administered by the OES and includes response to hazardous materials incidents. OES coordinates the response of other agencies including the Cal/EPA, the California Highway Patrol, the California Department of Fish and Game, the Regional Water Quality Control Board, the BAAQMD, and the City of Berkeley Fire Department.

MEDICAL WASTE MANAGEMENT ACT

In 1990 the California legislature adopted the Medical Waste Management Act, which provides for the regulation of medical waste generators, transporters, and treatment facilities. The California Department of Health Services (DHS) has adopted statewide regulations covering medical waste treatment permits and shares regulatory authority with local programs that choose to enforce the requirements. As a large generator of medical wastes, UC Berkeley must comply with these regulations.

CALIFORNIA RADIATION LAW

California is an "agreement state" with respect to federal radiation law. The agreement is that the State will administer the NRC federal regulations found in Title 10 of the CFR. The DHS is the agency responsible for administering the agreement. Under the agreement, the rules for California must be adequate to protect public health and safety and compatible with those of the NRC. The California rules are codified under Title 17 of the CCR. Under the California Radiation Control Law, the Radiological Health Branch of the DHS administers these rules.

The State's rules govern the receipt, storage, use, transportation, and disposal of sources of ionizing radiation and provide for the protection of users of these materials and the general public from radiation hazards. The DHS controls the use of radioactive materials in California by issuing Radioactive Material Licenses to California users of radioactive materials and radiation-producing machines. Several types of licenses exist, and UC Berkeley has a Broadscope Radioactive Materials License (the license) granted by the DHS.

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TRANSPORTATION AND TRAFFIC

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APPENDIX F.1
TRAFFIC ANALYSIS BACKGROUND

This appendix contains supplementary information about the traffic analysis study area and the intersection analysis methodology. It also includes an overview of the transportation analysis.

F.1.1   IMPACT ANALYSIS STUDY AREA

This section describes the impact analysis study area, beginning with descriptions of the regional and local roadway network serving the LRDP area.

REGIONAL ROADWAYS

Regional access to Campus Park is provided by three freeways including Interstate 80, State Route 13 and State Route 24. The primary streets serving the Campus Park include Ashby Avenue, San Pablo Avenue, University Avenue, Gilman Street, Shattuck Avenue, Martin Luther King Jr. Way, Telegraph Avenue, College Avenue, and the Belrose-Derby-Warring-Piedmont corridor. Roadway descriptions are as follows:

Interstate-80 connects the San Francisco Bay Area with the Sacramento region and continues east across the United States. Within Berkeley, Interstate 80 is oriented in a north-south direction. Interstate 80 and the nearby Interstate 80/Interstate 580 interchange operate at capacity during peak commute periods. The Ashby Avenue, University Avenue and Gilman Street interchanges provide access to Berkeley. The average daily traffic (ADT) on Interstate 80, at University Avenue, is 253,000 vehicles. [1]

State Route 24 links Interstate 80/Interstate 580/Interstate 980 interchange in Alameda County to Interstate 680 in Contra Costa County via the Caldecott Tunnel. Highway 24 provides the primary access from Contra Costa County to Berkeley via Highway 13 and Telegraph Avenue. The ADT on Highway 24 at Telegraph Avenue is 141,000 vehicles.[2]

Ashby Avenue (State Route 13) is an east-west street, and also a state highway, which connects Interstate 80 to Highway 24. South of Highway 24, Highway 13 continues as a four-lane freeway to its junction at Interstate 580. Ashby Avenue has four lanes west of San Pablo Avenue and two lanes in most places east of San Pablo. During the peak commute hours, on-street parking restrictions on the north side of the street in the morning and the south side in the evening provide an additional travel lane for commuters. The ADT on Ashby Avenue at Telegraph Avenue is 23,500 vehicles.[3]

San Pablo Avenue (Highway 123) is a major north-south street that connects the Richmond/Pinole area north of Berkeley with Oakland/Emeryville to the south. San Pablo Avenue is a state highway, and is a four-lane road with left-turn pockets at major intersections. The ADT on San Pablo Avenue, at University Avenue is about 23,500 vehicles.[4]

University Avenue is a four-lane east-west street. University Avenue provides one of the City's three connections to Interstate 80 to the west (along with Gilman Street and Ashby Avenue). The roadway provides parking, is divided and has left turn pockets at major intersections. Left turns from University Avenue onto cross-streets generally are not served by a separate left turn signal phase. University Avenue extends from the west edge of the UC Berkeley campus to Interstate 80 and Berkeley Marina. The ADT on University Avenue at San Pablo Avenue is 27,900 vehicles.[5]

Gilman Street is a major east-west street that connects Interstate 80 with San Pablo Avenue, and continues into North Berkeley to Hopkins Street. Most of the intersections along Gilman are unsignalized and the corridor provides one lane in each direction. The ADT on Gilman Street at San Pablo Avenue is 17,500 vehicles.[6]

Shattuck Avenue is a major north-south street that extends from north Berkeley to downtown Oakland. Shattuck Avenue is generally a four-lane roadway, with a center raised median, left-turn pockets, and on-street parking. Between Adeline Street and Alcatraz Avenue, Shattuck Avenue is a two-lane roadway. The ADT on Shattuck Avenue, at Dwight Way is 36,400 vehicles.[7]

Martin Luther King Jr. Way is a north-south street that extends from Hopkins Street in north Berkeley to Adeline Street in south Berkeley. Martin Luther King Jr. Way is four-lanes south of University Avenue and two-lanes north of University Avenue. There are no medians but there is on-street parking. The ADT on Martin Luther King Jr. Way, at Ashby Avenue is 23,000 vehicles.[8]

Telegraph Avenue is a major north-south street that extends from the Campus Park in the north to downtown Oakland in the south. Telegraph Avenue connects directly with Highway 24 Westbound ramps and to Eastbound Highway 24 via ramps at 51st Street. Between the Campus Park and Dwight Way, Telegraph Avenue is a two-lane, one-way northbound roadway; South of Dwight Way, Telegraph Avenue provides two travel lanes in each direction. Weekend vehicle traffic is often restricted near the Campus Park to foster pedestrian activity. Telegraph Avenue accommodates on-street parking on both sides of the street. The ADT on Telegraph Avenue, at Ashby Avenue is 28,200 vehicles.[9]

College Avenue is a major north-south street that extends from the Campus Park south to Highway 24 and into Oakland. In general, College Avenue provides one travel lane in each direction, and on-street parking. The ADT on College Avenue, at Ashby Avenue is 13,000 vehicles.[10]

Belrose-Derby-Warring-Piedmont Corridor is a heavily used street corridor between Highway 24 and the campus Southside area. Its connection to Tunnel Road facilities travel from both Highway 24 and Highway 13. With single lane travel in both directions, the corridor is at capacity for several hours during the morning and evening commute periods. The City and the University encourage travelers to use other routes, especially Telegraph Avenue, using roadway signs and directions in official mailings.

LOCAL ROADWAYS

The following local streets provide access and local circulation to the Campus Park area.

Durant Avenue and Bancroft Way are an east-west street couplet which extends from Downtown Berkeley at Martin Luther King Jr. Way to the Southside area of the Campus Park. Bancroft Way borders the Campus Park between Gayley Road and Oxford Street. Durant Avenue (one way eastbound) and Bancroft Way (one way westbound) each provide two to three travel lanes with on-street parking on both sides of the street.

Hearst Avenue is an east-west street that extends from West Berkeley at Eastshore Highway to Gayley Road at the Northwest corner of the Campus Park. Hearst Avenue borders the Campus Park between Gayley Road and Oxford Street. Hearst Street is generally a two-lane street with on-street parking. During the peak commute hours, on-street parking restrictions on the south side of the street in the morning and the north side in the evening provide an additional travel lane for commuters. These restrictions occur between Gayley Road and Oxford Street. Hearst Avenue is designated as a bicycle lane (Class II) facility west of Shattuck Avenue, and a bicycle route (Class III) facility to the east.

Oxford Street is a two-to four-lane north-south street that extends between downtown Berkeley to the south and Marin Avenue to the north. Oxford Street borders the Campus Park between Hearst Avenue and Bancroft Way, and parking is allowed on both sides of the street. Oxford Street adjacent to the Campus Park is designated as a bicycle lane (Class II) facility.

Gayley Road is a two-lane, north-south street that borders the east side of Campus Park, and extends between Bancroft Way in the south and Hearst Avenue in the north. South of Bancroft Way, Gayley Road becomes Piedmont Avenue and north of Hearst Avenue, Gayley Road becomes La Loma Avenue. No parking is allowed on Gayley Road.

Euclid Avenue is a two-lane north-south street that begins at Hearst Avenue adjacent to the Campus Park and extends through North Berkeley. Euclid Avenue serves as important street for Berkeley Hill residents to access the Campus Park and downtown areas. Parking is allowed on both sides of the street.

Channing Way is an east-west street that extend between Piedmont Avenue in the east to Berkeley Aquatic Park in West Berkeley. Channing Way is a two-lane, two-way facility with parking on the north side of the street. Channing Way is a designated Bicycle Boulevard.

Haste Street is an east-west street that connects Martin Luther King Jr. Way to Piedmont Avenue. Haste Street provides two westbound lanes, with parking on both sides of the street. Haste Street serves as a one-way couplet along with Dwight Way.

Dwight Way is a major east-west street extending from Berkeley Aquatic Park in West Berkeley through Berkeley and past Piedmont Avenue. The street is one-way eastbound with two travel lanes between Martin Luther King Jr. Way and Piedmont Avenue, and two-way with one lane in each direction otherwise. On-street parking is provided along both sides of the street.

F.1.2 CONDUCTING TRAFFIC COUNTS FOR BASELINE CONDITIONS

The following information supplements the discussion in Chapter 4.12.4, Roadway and Intersection Operations -- Analysis Locations.

When conducting traffic counts for baseline condition definitions, it is desirable to ensure no unusual conditions exist. In a citywide traffic count such as that conducted for this EIR, it is difficult to avoid all unusual conditions without substantially delaying the data collection effort. During the count periods, the following unusual conditions, mostly due to construction, were observed:

- Channing Way, west of College Avenue open for parking lot access only;
- Channing Way (westbound) narrowed to one lane shared by both directions at the Channing Way/Shattuck Avenue intersection;
- Gayley Road between Bancroft Avenue and Hearst Avenue periodically closed throughout the day for heavy vehicle movements;
- Euclid Avenue between Hearst Avenue and Ridge Road closed during the morning peak period;
- Hearst Avenue (westbound) narrowed to two lanes at the Hearst Avenue/Oxford Street intersection.

F.1.3 INTERSECTION ANALYSIS METHODOLOGY

SIGNALIZED INTERSECTIONS

Signalized Intersection traffic conditions and resulting level of service were determined using the *Highway Capacity Manual (HCM) - Special Report 209* (Transportation Research Board, 2000) methodology. This operations analysis uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the control delay per vehicle. Control delay is the portion of the total delay attributed to signal operations and includes initial deceleration, queue move up time, stopped delay, and acceleration delay. Using this methodology, the level of service for a signalized intersection is based on the control delay per vehicle measured in seconds. Qualitative descriptions of level of service are provided in Table F.1-1. The signalized intersection LOS criteria are summarized in Table F.1-2.

TABLE F.1-1 **QUALITATIVE DESCRIPTION OF LEVEL OF SERVICE**

Level of Service	Driver's Perception
A	LOS A is the highest quality of traffic flow. Motorists are able to drive at their desired speeds for two and four lane roads and can easily make lane changes to pass on four lane roads. At a traffic signal, all motorists can be served by one green signal phase. Motorists on a stop-controlled approach experience little or no conflicting traffic.
B	LOS B is characterized by light congestion. Motorists are generally able to maintain desired speeds on two and four lane roads and make lane changes on four lane roads. Motorists are still able to pass through traffic controlled intersections in one green phase. Stop-controlled approach motorists begin to notice absence of available gaps.
C	LOS C represents moderate traffic congestion. Average vehicle speeds continue to be near the motorist's desired speed for two and four lane roads. Lane change maneuvers on four lane roads increase to maintain desired speed. Turning traffic and slow vehicles begin to have an adverse impact on traffic flows. Occasionally, motorists do not clear the intersection on the first green phase. Stop-controlled approach motorists begin experiencing delay for available gaps.
D	LOS D is characterized by congestion with average vehicle speeds decreasing below the motorist's desired level for two and four lane roads. Lane change maneuvers on four lane roads are difficult to make and adversely affect traffic flow like turning traffic and slow vehicles. Multiple cars must wait through more than one green phase at a traffic signal. Stop-controlled approach motorists experience queuing due to a reduction in available gaps.
E	LOS E is the lowest grade possible without stop-and-go operations. Driving speeds are substantially reduced and brief periods of stop-and-go conditions can occur on two and four lane roads and lane changes are minimal. At signalized intersections, long vehicle queues can form waiting to be served by the signal's green phase. Insufficient gaps on the major streets cause extensive queuing on the stop-controlled approaches.
F	LOS F represents stop-and-go conditions for two and four lane roads. Traffic flow is constrained and lane changes minimal. Drivers at signalized intersections may wait several green phases prior to being served. Motorists on stop-controlled approaches experience insufficient gaps of suitable size to cross safely through a major traffic stream.

Source: Fehr & Peers Associates (interpreted from *2000 Highway Capacity Manual*)

TABLE F.1-2 **SIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA**

Level of Service	Control Delay per Vehicle (Seconds)
A	≤ 10.0
B	> 10.0 and ≤ 20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	> 80.0

Source: *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000)

TABLE F.1-3 **UNSIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA**

Level of Service	Control Delay per Vehicle (Seconds)
A/B	≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

Source: *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000)

UNSIGNALIZED INTERSECTIONS

Unsignalized Intersections (four-way stop-controlled and side street stop-controlled) were evaluated using the *HCM – Special Report 209* (Transportation Research Board, 2000) methodology. With this methodology, operations are defined by the average control delay per vehicle (measured in seconds) for each stop-controlled movement. This incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. For side street stop-controlled intersections, the delay is typically represented for each movement from the minor approaches only. Table F.1-3 summarizes the relationship between delay and LOS for unsignalized intersections.

F.1.4 TRANSPORTATION ANALYSIS OVERVIEW

This section describes the transportation analysis of the 2020 LRDP in detail, including the trip generation for each mode of travel; trip distribution and assignment to the roadway system; and the estimated future parking demand. This section is followed by sections discussing the resulting impacts on intersection operations; CMP route traffic capacity; parking supply and demand; bicycle circulation; pedestrian circulation; transit service; and construction period impacts.

FUTURE TRAFFIC FORECASTING METHODOLOGY (2020 NO PROJECT)

Traffic volumes for the Year 2020 Without Project condition were forecast using the Alameda County Countywide Travel Demand Model. Maintained by the Alameda County Congestion Management Agency, the Countywide Travel Demand Model is used to assess project impacts on the Congestion Management Program (CMP) Designated Roadway System and on the Metropolitan Transportation System (MTS), which includes more roadways than the CMP system. In addition, the Countywide Travel Demand Model is the best tool available for forecasting regional traffic growth. Thus the Countywide Travel Demand Model can be used to develop baseline intersection turning movements for the Year 2020 Without Project scenario.

The current model, is based on the Association of Bay Area Governments (ABAG) *Projections 2002* Land Use database, and provides 2005 (to be used as existing conditions), 2010 and 2025 forecasts. In consultation with the CMA staff, it was determined that the 20-year time span between 2005 and 2025 was appropriate to assess 2020 conditions, as it represents just two additional years of regional growth, relative to the 2002 – 2020 time span covered by the LRDP analysis. (A sensitivity analysis was performed to confirm that the two additional years represents negligible differences at individual intersections).

During the initial preparation of the DEIR traffic impact analysis in mid-2003, revised *Projections 2002* land uses were released by ABAG, causing the CMA and many member cities to reconsider the accuracy of the land use distributions within the cities (citywide totals did not change). The CMA began the process of revising the model to better reflect the revised *Projections 2002* data, but the revised model was not ready in time for the analysis in this EIR. Therefore, for this EIR, the 2025 model is used to represent 2020 Without Project conditions, with the following modifications:

- The model land uses by zone were adjusted by Hausrath Economics Group, in consultation with the City of Berkeley, to provide a more accurate land use distribution in the southside and downtown areas. This resulted in Citywide population and employment totals that slightly exceed the previous totals in the model. To reflect these totals, in consultation with the CMA, a modified April 2003 model incorporating the HEG land use adjustments was used to prepare the analysis for this document.

- Subsequent to the completion of the DEIR analysis, a new updated model was released by CMA in March 2004. The updated March 2004 model results were compared to the model results used for the DEIR analysis. The citywide population and employment totals used by CMA are about 3% less than the model used for analysis in this section. The major modification to the model is the redistribution of employment throughout the City of Berkeley. The employment redistribution is applied to both 2005 and 2025 models, thus the net 2005 to 2025 land use growth has not changed. Since the forecasted traffic volumes used for this analysis are based on the growth between 2005 and 2025 models, the forecasted traffic volumes presented in the analysis would be consistent with the latest updated CMA model.

- To obtain intersection turning movement forecasts, the existing volumes were adjusted using an iterative process that incorporates the Countywide Travel Demand Model forecasted 2005 to 2025 growth at each intersection approach and departure. This process is called "furnessing". This process was used at the major (arterial/arterial) intersections, and then the growth at those intersections was distributed to the rest of the study intersections, in a process called volume balancing. Note that the year 2005 Travel Demand Model is used in this process as an approximation of existing conditions.

- The traffic generated by growth currently envisioned for the Lawrence Berkeley National Laboratory 2004 LRDP was added to the model forecast volumes in a separate step, in order to ensure consistency with the traffic forecasts being prepared by Lawrence Berkeley National Laboratory. The volumes were added to each intersection, using a TRAFFIX software-based model prepared by the Lawrence Berkeley National Laboratory traffic consultant, Wilbur Smith Associates. The Lawrence Berkeley National Laboratory 2004 LRDP envisions a growth in the Average Daily Population (defined as full-time equivalent staff plus 40% guests) of 1,200 from 2003 to 2025.

- Since the UC Berkeley LRDP EIR projects traffic only to 2020, LBNL's projected growth of 1,200 by 2025 was reduced to 900, using straight-line interpolation. The corresponding trip generation growth for Lawrence Berkeley National Laboratory, as calculated by Wilbur Smith Associates and reduced by Fehr & Peers to reflect 2003 - 2020 growth only, is 131 AM peak hour trips and 140 PM peak hour trips. These trips were assigned to the roadway network in the above-noted TRAFFIX model, and Fehr & Peers took the assigned volumes and added them to the UC Berkeley LRDP 2020 traffic projections, to produce final Cumulative Without Project 2020 traffic volumes.

- The University recently completed the Draft Environmental Impact Report (DEIR) for the University Village and Albany/NW Berkeley Properties Master Plan Amendments. The project, which consists of 738 student residential units, 31 faculty residential units, and 73,000 square feet of retail, is estimated to generate 359 AM peak hour trips and 652 PM peak hour trips. The University Village estimated trip generation and trip distribution was taken into account as documented in the DEIR for that project, to provide consistent analysis in the area common to both studies.

Appendix F.4 contains the Countywide Travel Demand Model's land use by zone for Berkeley, for 2005 and 2025, as modified (see above). Appendix F.4 also includes the model's trip generation by zone for 2005 and 2025.

PROJECT DESCRIPTION

Under the proposed 2020 LRDP, the academic and support space would increase by up to 2.2 million square feet, campus headcount by up to 4,520 persons (excluding visitors and vendors), the parking supply by up to 2,300 spaces, and

housing by up to 2,600 beds. The primary factor for trip generation for the 2020 LRDP is the increase in population. Table F.1-4 summarizes the existing and the estimated increase for each population segment under the 2020 LRDP.

The number of parking spaces provided also contributes to the overall project trip generation. Since vehicle trips must begin and end at a parking space, the parking facility location determines the trip distribution characteristics of the project. Figure F.1-1 shows the location of the City Environs zones. The maximum number of new parking spaces allowed under the 2020 LRDP for each zone is: 600 spaces in the Campus Park zone, 600 in the Adjacent Blocks South zone, and 1,300 in the Adjacent Blocks West zone. The total number of spaces in these zones add to 2,500. However, the net increase under the 2020 LRDP would not be more than 2,300 spaces, thus providing some flexibility in the ultimate parking locations.

The 2020 LRDP land use zones, as shown in Figure F.1-1, assume a very large area for potential parking locations. In order to provide a meaningful traffic analysis for study intersections located within or in close proximity to the parking zones, the parking locations need to be defined more specifically. Thus, the proposed number of parking spaces within each area have been assigned to more specific parking clusters. Figure F.1-2 shows the location of these parking clusters and the estimated maximum number of parking spaces assigned to each cluster.

These clusters represent the most likely locations for new parking facilities. They do not represent the ultimate location and size of future parking facilities. The ultimate location and size of future parking facilities is limited only by the parking zones shown in Figure F.1-1.

As previously mentioned, the 2020 LRDP also includes up to 2,500 student beds and up to 200 family-suitable units. About 100 of the family-suitable units would be located in the Hill Campus land use zone. The other 100 family-suitable units and all of the other student housing would be located in the LRDP Housing Zone, shown in Chapter 3, Figure 3.1-5. The LRDP Housing Zone is defined as areas already zoned for high-density housing within a one-mile radius of Doe Library, or within a block of a transit line providing a trip to Doe Library in under 20 minutes. The proximity of the housing units to either the Campus Park or a transit line is designed to minimize the need for residents to commute by auto to the campus. Further, the majority of the new student housing would be within a two-mile radius of the Campus Park, where students are not allowed to purchase commuter parking permits.

The proposed 2,500 student beds would accommodate all of the 1,650-student growth plus an additional 850 existing students. The 850 existing students served by the new beds would be expected to shift primarily from locations further away from the Campus Park to location closer to the Campus Park. Similarly, the 200 new family-suitable units would accommodate faculty/staff in locations closer to the Campus Park and thus reduce their trip generation.

2020 LRDP LAND USE ZONES

1. Campus Park
2. Adjacent Blocks South
3. Adjacent Blocks West
4. Adjacent Blocks North
5. Southside
6. Hill Campus

— · — · — City Limit Line

[XXX] Maximum Number of New Parking Spaces Assumed in the Land Use Zone

········· Lawrence Berkeley National Laboratory Boundary
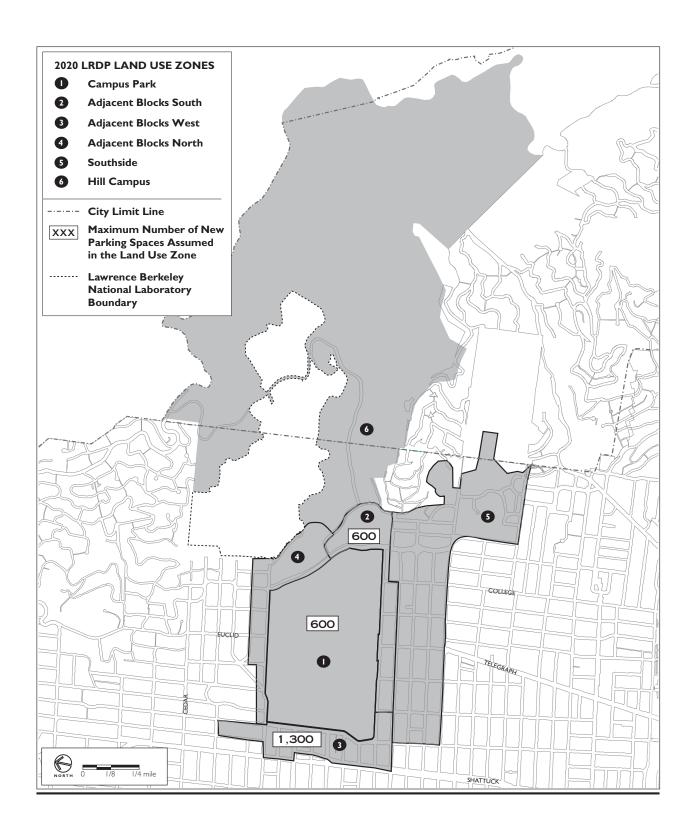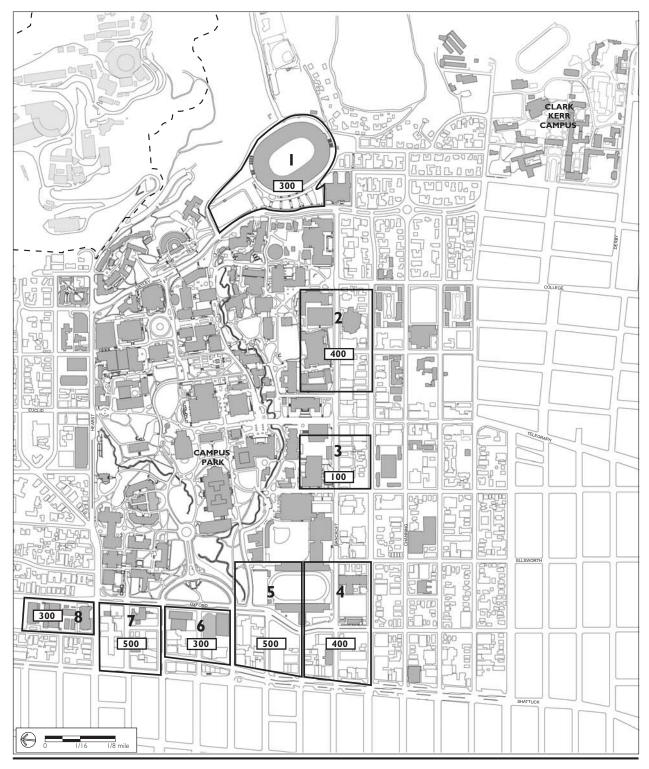
FIGURE F.1-1
**CITY ENVIRONS
PARKING SPACES**

UNIVERSITY OF CALIFORNIA, BERKELEY
2020 LRDP DRAFT EIR

Source: Fehr and Peers, 2003.

Note: In some cases, parking cluster borders overlap the land use zones shown in Figure F.1-1.

| XXX | **Estimated Maximum Number of Parking Spaces Assumed in Each Parking Cluster** |
| - - - | **Lawrence Berkeley National Laboratory Boundary** |

FIGURE F.1-2
2020 LRDP PARKING CLUSTERS

TABLE F.1-4 **2020 LRDP HEADCOUNT SUMMARY**

Population Group	Existing	Additional 2020 LRDP	Total 2020
Students	31,800	1,650	33,450
Undergraduate	23,100	850	23,950
Graduate	8,700	800	9,500
Faculty	1,760	220	1,980
Post-docs and Visiting Scholars	1,1,935	1,140	3,075
Academic Staff	1,105	700	1,805
Non-Academic Staff	8,140	810	8,950
Total	44,740	4,520	49,260

Source: UC Berkeley, May 2003

The housing units would be located in areas already zoned for high-density residential developments. Thus there is no change in land use in these areas. These residential developments would be allowable regardless of University residential development needs. However, by providing University-affiliated housing in areas with adequate non-auto access to the Campus Park, the trip generation for these sites would be reduced.

Although the housing component of the 2020 LRDP would lower the overall project trip generation, it has not been taken into account, in order to provide a more conservative analysis.

The traffic analysis for the LRDP Housing Zones is incorporated within the traffic analysis for the 2020 LRDP program as a whole. Because the specific locations of new housing projects within the LRDP Housing Zones zone is not defined, the trip generation, distribution and assignment associated with the new beds is based on the methodology described in the following section. This methodology treats the 2020 LRDP population growth (including those accommodated by the new beds) as a whole, and bases the trip-making characteristics of the new population on factors such as the distance between residence and campus, and the travel mode choice (based on surveys of the current population). The LRDP Housing Zones are all located within 5 miles of campus, so the trips generated by the new students, faculty and staff using the new beds are represented within that category in the analysis. This analysis approach yields a conservative estimate of total 2020 LRDP trips, because no discount for proximity to transit is applied to the LRDP Housing Zone vehicle trips.

MODE CHOICE

Person trip generation estimates were developed based on the *Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey,* the *Fall 2000 Student Housing and Transportation Survey,* current University population data, and the 2020 LRDP program description. These sources were used to estimate person-trip generation for each travel mode and from this the vehicle-trip estimates for the expected LRDP population growth. The steps taken in estimating the 2020 LRDP trip generation are briefly described here.

Data from the faculty/staff and student surveys were cross-tabulated to identify, for the six population categories, the percentage breakdown by residence distance from Campus Park, and the percentage breakdown by primary travel mode used for the Campus Park commute. This gives, for each group, a unique mode use breakdown for each of four residence distance categories (less than one mile, one to five miles, five to ten miles, and over ten miles). Table F.1-5 summarizes the existing mode choice for each population category based on residence location.

The trip generation for each mode is based on the data summarized in Table F.1-5. The trip generation for each travel mode is discussed in further detail under the appropriate section.

PERSON TRIP GENERATION

Person trip generation estimates for each mode were developed by applying the mode choice data presented in Table F.1-5 to the expected increase in each population category. A daily peak attendance of 90 percent is assumed to account for the combined effects of vacations, sick leaves and other work absences (this is a conservative factor that does not consider part-time employees.) Using these calculations, as shown in Table F.1-6, the 2020 LRDP is estimated to generate 4,101 new person trips; that is, 4,101 new commute round-trips by all travel modes combined.

VEHICLE TRIP GENERATION

The 2020 LRDP is estimated to result in an additional 1,636 persons driving alone to the Campus Park, and 247 persons coming by carpool or vanpool. Based on the faculty/staff and student surveys, a 2.3 carpool/vanpool occupancy rate is assumed. The Campus Park population increase of 4,520 is estimated to result in 1,745 new vehicles driving to the City Environs daily. Each commute round-trip equals two one-way commute trips: one coming to the City Environs, and one leaving the City Environs.

The arrival and departure time data from the surveys were used to estimated the AM and PM peak hour vehicle trip generation. The AM peak hour occurs between 8:00 and 9:00 AM and the PM peak hour occurs between 5:00 and 6:00 PM. As summarized in Table F.1-7, the 2020 LRDP is estimated to result in 3,490 new daily, 732 new inbound AM peak hour, and 685 new outbound PM peak hour vehicle trips.

TABLE F.1-5   **EXISTING CAMPUS PARK MODE CHOICE BY POPULATION SEGMENT AND RESIDENCE DISTANCE[a]**

Population Segment	Travel Mode	Residence Distance			
		< 1 Miles	1-5 Miles	5-10 Miles	> 10 Miles
Faculty	Walk	35%	10%	0%	0%
	Bicycle	19%	20%	4%	0%
	Drive Alone	27%	55%	83%	61%
	Carpool/Vanpool	8%	8%	7%	2%
	Public Transit	12%	6%	7%	37%
Post-Docs and Visiting Scholars[b]	Walk	35%	10%	0%	0%
	Bicycle	19%	20%	4%	0%
	Drive Alone	27%	55%	83%	61%
	Carpool/Vanpool	8%	8%	7%	2%
	Public Transit	12%	6%	7%	37%
Academic Staff	Walk	63%	13%	0%	0%
	Bicycle	38%	15%	0%	0%
	Drive Alone	0%	58%	81%	59%
	Carpool/Vanpool	0%	7%	19%	6%
	Public Transit	0%	6%	0%	34%
Non-Academic Staff	Walk	66%	9%	0%	0%
	Bicycle	13%	13%	1%	1%
	Drive Alone	10%	52%	65%	51%
	Carpool/Vanpool	1%	9%	15%	14%
	Public Transit	11%	18%	19%	34%
Undergraduate Students	Walk	85%	13%	5%	0%
	Bicycle	5%	11%	0%	0%
	Drive Alone	0%	22%	50%	37%
	Carpool/Vanpool	0%	3%	8%	8%
	Public Transit	10%	49%	38%	54%
Graduate Students	Walk	66%	10%	1%	0%
	Bicycle	19%	23%	2%	1%
	Drive Alone	0%	16%	59%	45%
	Carpool/Vanpool	0%	3%	4%	4%
	Public Transit	14%	46%	33%	48%

[a] Existing mode choice for commute trips to the Campus Park based on data in the Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey and the Fall 2000 Student Housing and Transportation Survey.

[b] Due to low response rates for post-docs/visiting scholars (2%) to the Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey, the survey results were excluded. Rather post-docs/visiting scholars were assumed to most closely resemble faculty. As a result, post-docs/visiting scholars are represented by the faculty data.

Source: Fehr & Peers Associates, June 2003.

TABLE F.1-6   **2020 LRDP PERSON TRIP GENERATION BY MODE CHOICE, POPULATION SEGMENT AND RESIDENCE DISTANCE**[a]

Population Segment	Travel Mode	Residence Distance				
		< 1 Miles	1-5 Miles	5-10 Miles	>10 Miles	Total
Faculty	Walk	7	13	0	0	20
	Bicycle	4	26	1	0	31
	Drive Alone	5	69	21	17	112
	Carpool/Vanpool	1	10	2	1	14
	Public Transit	2	8	2	10	22
Post-Docs and Visiting Scholars	Walk	34	68	0	0	102
	Bicycle	19	133	6	0	158
	Drive Alone	26	357	111	89	583
	Carpool/Vanpool	8	52	9	3	72
	Public Transit	11	39	9	53	112
Academic Staff	Walk	30	44	0	0	74
	Bicycle	18	49	0	0	67
	Drive Alone	0	189	76	98	363
	Carpool/Vanpool	0	24	18	10	52
	Public Transit	0	19	0	57	76
Non-Academic Staff	Walk	36	28	0	0	64
	Bicycle	7	42	2	1	52
	Drive Alone	6	166	107	97	376
	Carpool/Vanpool	0	28	25	27	80
	Public Transit	6	56	31	64	157
Undergraduate Students	Walk	462	24	1	0	487
	Bicycle	25	20	0	0	45
	Drive Alone	0	41	12	21	74
	Carpool/Vanpool	0	5	2	4	11
	Public Transit	57	89	9	31	186
Graduate Students	Walk	130	40	0	0	170
	Bicycle	37	91	1	1	130
	Drive Alone	0	65	22	41	128
	Carpool/Vanpool	0	13	1	4	18
	Public Transit	28	182	12	43	265
Total	Walk	699	217	1	0	917
	Bicycle	110	361	10	2	483
	Drive Alone	37	887	349	363	1,636
	Carpool/Vanpool	9	132	57	49	247
	Public Transit	104	393	63	258	818
Total	All modes	959	1,990	480	672	4,101

[a] Based on 2020 LRDP population increase and existing mode choice characteristics summarized in Table 4.12-15.

Source: Fehr & Peers Associates, June 2003.

Parking driveway occupancy counts conducted at the major University operated parking facilities in February 2003 were used to determine the vehicle-trip generation estimates based on the proposed new parking supply. Based on the surveys, each parking space generates about 0.40 inbound trips during the AM peak hour and 0.35 outbound trips during the PM peak hour. Applying these rates to the new 2,300 parking spaces associated with the 2020 LRDP results in 918 inbound AM peak hour trips and 816 outbound PM peak hour trips. These trips represent both new trips associated with the 2020 LRDP population growth and the existing trips diverted from on-street or non-University operated off-street parking supplies.

Table F.1-8 summarizes the new and existing diverted AM and PM peak hour vehicle trips that would result from the combination of the 2020 LRDP population growth and parking supply increase. The existing diverted vehicle trips represents vehicle trips already using the roadway system. However to present a more conservative analysis, and to account for any potential "backfill" parking demand re-distribution that may occur with changing parking supplies, this study treats the existing diverted trips as new trips. In conclusion, this study is based on AM and PM peak hour trip generation estimate of 918 and 816 vehicle trip, respectively.

In addition to the Campus Park developments, the 2020 LRDP also includes a maximum of 50,000 net new gross square feet at "Other Berkeley Sites": most of the existing UC Berkeley space in this category is at 2000 Carlton Street and 6701 San Pablo Avenue. Both sites are located away from the Campus Park with different population characteristics. Since the exact location of future new space is not yet known, in order to be conservative, for the purposes of analysis we have assumed each of these sites would expand by 50,000 gsf. Since both sites are similar to typical office developments, the office average trip generation rates published in Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 6th Edition, were used to estimate the additional trip generation at these two sites. Each site is estimated to generate 78 new AM peak hour and 74 new PM peak hour vehicle trips.

VEHICLE TRIP DISTRIBUTION

The *Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey*, and the *Fall 2000 Student Housing and Transportation Survey* identified both residence location by ZIP code and vehicle commute path between residence and campus destination. The survey data were used to quantify the vehicle trip distribution of existing UC Berkeley users. These distributions, summarized in Table F.1-9, are used to assign approach direction to campus for the 2020 LRDP estimated trip generation.

The parking clusters shown in Figure F.1-2 were used to assign project trips in the vicinity of the Campus Park. Trips were assigned to each cluster proportional to the estimated number of parking spaces within the cluster.

TABLE F.1-7   **2020 LRDP NEW DAILY AND PEAK HOUR VEHICLE TRIP GENERATION BY POPULATION SEGMENT AND RESIDENCE DISTANCE**[a]

| Population Segment | Time Period | Residence Distance | | | | Total |
		< 1 Miles	1-5 Miles	5-10 Miles	> 10 Miles	
Faculty	Daily	10	146	44	34	234
	AM	2	28	8	6	44
	PM	2	28	8	6	44
Post-Doc and Visiting Scholars	Daily	58	760	230	180	1,228
	AM	11	144	43	34	232
	PM	11	146	44	34	235
Academic Staff	Daily	0	398	168	204	770
	AM	0	97	41	50	188
	PM	0	77	33	40	150
Non-Academic Staff	Daily	12	358	236	218	824
	AM	3	87	57	53	200
	PM	3	91	61	55	210
Undergraduate Students	Daily	0	88	26	46	160
	AM	0	14	4	7	25
	PM	0	9	3	5	17
Graduate Students	Daily	0	142	46	86	274
	AM	0	22	7	14	43
	PM	0	15	5	9	29
Total	Daily	80	1,892	750	768	3,490
	AM	16	392	160	164	732
	PM	16	366	154	149	685

[a] Based on data from the Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey and the Fall 2000 Student Housing and Transportation Survey. Trips only include commute trips. Daily trips are both in and out trips. AM peak hour trips are in trips, and PM peak hour trips are out trips only.
Source: Fehr & Peers Associates, June 2003.

TABLE F.1-8 **2020 LRDP NEW AND DIVERTED TRIP GENERATION**

	AM Peak Hour[d]			PM Peak Hour[e]		
	In	Out	Total	In	Out	Total
Total Vehicle Trips[a]	918	92	1,010	114	816	930
New Vehicle Trips[b]	732	73	805	96	685	781
Existing diverted Trips[c]	186	19	205	18	131	149

[a] Based on 0.40 AM peak hour, and 0.35 PM peak hour peak direction trip generation rates per parking space for the 2,300 new parking spaces. Rates developed from February 2003 surveys at existing major commuter University operated parking facilities.
[b] Vehicle trips generated by the new 2020 LRDP population. See F.1-7.
[c] Vehicle trips currently parking at non-University operated or on-street parking locations that are expected to divert to the new parking facilities.
[d] Based on surveys at existing major commuter University operated parking facilities, the outbound trip generation rate during the AM peak hour is about 10% of inbound trip generation.
[e] Based on surveys at existing major commuter University operated parking facilities, the inbound trip generation rate during the PM peak hour is about 14 percent of outbound trip generation.
Source: Fehr & Peers Associates, June 2003.

PARKING SUPPLY AND DEMAND

The 2020 LRDP population increase is estimated to generate 1,745 new vehicle commute round-trips to the Campus Park and Adjacent Blocks. Thus, the 2,300 new parking spaces associated with the 2020 LRDP would accommodate all new vehicle trips generated by the 2020 LRDP program. In addition, there would be a 555 space surplus. These spaces would attract existing University-related vehicle trips that currently park on-street or at non-University operated parking facilities. The 2020 LRDP parking supply increase is in fact intended to allow the University to serve more of its existing parking demand, resulting in less reliance on non-University parking and on-street parking.

As discussed in Chapter 4.12, changes to the Downtown parking supplies associated with increased demands and potential supply reductions from new Downtown developments are projected to result in future parking deficits. Based on the current approved Downtown projects, the Downtown parking deficit is estimated at about 600 parking spaces during typical weekdays.[11]

This number does not include current proposed but not yet approved projects such as Library Gardens located on Kittredge Street at Milvia Street and the David Brower Center project that is currently being studied for the City's Oxford Street parking lot. With the approval of additional Downtown projects, the Downtown area parking deficit would continue to increase.

The forecasted Downtown parking deficit of at least 600 spaces, discussed in the *Vista College FEIR*, would more than offset the 555 spaces made available by relocating existing University-affiliated parking to the new 2020 LRDP parking supply.

TABLE F.1-9 **VEHICLE TRIP DISTRIBUTION**

Approach Direction and Corridor	Areas Served	Trip Distribution[a]
North of Berkeley (Euclid Avenue, Oxford Avenue, Shattuck Avenue)	North Berkeley Kensington	13%
South of Berkeley (College Avenue, Telegraph Avenue, Adeline-Shattuck Corridor)	Alameda Piedmont Oakland South Berkeley	13%
San Pablo North	North Berkeley Albany El Cerrito	10%
San Pablo South	Oakland Emeryville South Berkeley	5%
I-580 West	Marin County Richmond El Cerrito	5%
I-80 North	West Contra Costa County Sonoma County & North Sacramento Area	7%
I-880/I-80 South	San Francisco Alameda San Mateo County San Leandro & South	14%
State Route 13 South	Oakland	8%
State Route 24 East (Grizzly Peak Boulevard-Centennial Drive corridor, Belrose-Derby-WarrinF.1-Piedmont Corridor)	Orinda and East	11%
West Berkeley	West Berkeley	14%
	Total	**100%**

[a] Based on residence location and commute path data in the Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey and the Fall 2000 Student Housing and Transportation Survey.

BICYCLE TRIP GENERATION AND CIRCULATION

Bicycle trip generation by population group and residence distance from campus was calculated, as shown in Table F.1-10. Note that only commute trips are shown in this table.

TABLE F.1-10   **2020 LRDP NEW DAILY AND PEAK HOUR BICYCLE TRIP GENERATION BY POPULATION SEGMENT AND RESIDENCE DISTANCE**[A]

Population Segment	Time Period	Residence Distance				
		< 1 Miles	1-5 Miles	5-10 Miles	> 10 Miles	Total
Faculty	Daily	4	26	1	0	31
	AM	1	8	0	0	9
	PM	1	7	0	0	8
Post-Doc and Visiting Scholars	Daily	19	133	6	0	158
	AM	5	38	2	0	45
	PM	5	36	2	0	43
Academic Staff	Daily	18	49	0	0	67
	AM	14	37	0	0	51
	PM	8	20	0	0	28
Non-Academic Staff	Daily	7	42	2	2	53
	AM	4	23	1	1	29
	PM	4	23	1	1	29
Undergraduate Students	Daily	25	20	0	0	45
	AM	8	6	0	0	14
	PM	5	4	0	0	9
Graduate Students	Daily	37	91	1	1	130
	AM	11	27	0	0	38
	PM	7	17	0	0	24
Total	Daily	110	361	10	2	483
	AM	43	139	3	1	186
	PM	30	107	3	1	141

[a] Based on data from the *Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey* and the *Fall 2000 Student Housing and Transportation Survey*.   Trips only include commute trips. Daily trips are roundtrips including both in and out trips. AM peak hour trips are in trips, and PM peak hour trips are out trips only.
Source: Fehr & Peers Associates, June 2003.

Approximately 483 new persons are expected to bicycle to Campus Park on a typical weekday, with 186 AM peak hour trips and 141 PM peak hour trips. Existing bicycle distribution characteristics at the major campus entry points were used as the basis for distributing project-related bicycle trips to the roadways adjacent to the Campus Park. (Refer to Figure 4.12-8, which shows the bicycle volumes for the highest peak hour of the day at intersections surrounding the Campus Park area). Because the 2020 LRDP AM peak hour bicycle volume is higher than the PM peak hour volume, the new AM peak hour bicycle volumes are compared to the existing peak hour bicycle volumes at the intersections directly adjacent to the Campus Park. The results are shown in Table F.1-11. Bicycle volumes are anticipated to increase between 8 and 10 percent on roadways adjacent to the Campus Park.

TABLE F.1-11 **PEAK HOUR CAMPUS ENTRY BICYCLE VOLUMES**[A]

Entry Point	Existing Bicycle Volume[b]	New LRDP Bicycle Trips	Future Bicycle Volume	Percent Increase
Hearst at				
Oxford	266	24	290	9%
Arch	37	3	40	8%
Euclid	54	5	59	9%
LeRoy	31	3	34	10%
La Loma	38	3	41	8%
Oxford at				
Berkeley	159	14	173	9%
University	679	60	739	9%
Center	132	12	144	9%
Bancroft	201	18	219	9%
Bancroft at				
Dana	152	13	165	9%
Telegraph	131	12	143	9%
Bowditch	71	6	77	8%
College	61	5	66	8%
Piedmont	85	8	93	9%

[a] Based on existing peak hour bicycle volumes, and AM peak hour LRDP trip generation.

[b] Existing bicycle volumes as reported in the Downtown/Southside TDM Study.

Source: Fehr & Peers Associates, June 2003

The Campus Park gateway intersection anticipated to experience the highest increase in bicycle trips is the Oxford Street /University Avenue intersection. This intersection currently serves approximately 680 bicyclists during the peak hour. The LRDP would increase bicycle volumes by approximately 9 percent, or 60 bicycle trips during the peak hour.

The policies and planned improvements in the Berkeley Bicycle Plan are designed to accommodate existing and future growth in bicycle volumes, and the General Plan encourages bicycling along with walking and transit as alternatives to auto use. Therefore, this increase in bicycling is foreseen in local plans, and is desirable. Moreover, bicycle volumes, while expected to increase, would not exceed the capacity of available bicycle facilities. Based on this analysis, this impact is *less than significant*.

PEDESTRIAN TRIP GENERATION AND CIRCULATION

New pedestrian trips for the 2020 LRDP were estimated as part of the trip generation development, as shown in Table F.1-12. Since the majority of pedestrian trips occur during the commute time, this analysis only includes the peak hour commute trips and does not include other walking trips throughout the day, such as trips to area businesses and between campus buildings, both on and off the Campus Park.

TABLE F.1-12 **2020 LRDP NEW DAILY AND PEAK HOUR PEDESTRIAN TRIP GENERATION BY POPULATION SEGMENT AND RESIDENCE DISTANCE**

| Population Segment | Peak Hour | Residence Distance | | | | |
		< 1 Miles	1-5 Miles	5-10 Miles	> 10 Miles	Total
Faculty	Daily	7	13	0	0	20
	AM	2	4	0	0	6
	PM	3	5	0	0	8
Post-Doc and Visiting Scholars	Daily	34	68	0	0	102
	AM	11	21	0	0	32
	PM	12	25	0	0	37
Academic Staff	Daily	30	44	0	0	74
	AM	7	10	0	0	17
	PM	18	27	0	0	45
Non-Academic Staff	Daily	36	28	0	0	64
	AM	18	14	0	0	32
	PM	18	14	0	0	32
Undergraduate Students	Daily	462	24	1	0	487
	AM	148	8	0	0	156
	PM	103	5	0	0	108
Graduate Students	Daily	130	40	0	0	170
	AM	42	13	0	0	55
	PM	29	9	0	0	38
Total	Daily	699	217	1	0	917
	AM	228	70	0	0	298
	PM	183	85	0	0	268

[a] Based on data from the *Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey* and the *Fall 2000 Student Housing and Transportation Survey*. Trips only include commute trips. Daily trips are roundtrips including both in and out trips. AM peak hour trips are in trips, and PM peak hour trips are out trips only.
Source: Fehr & Peers Associates, June 2003.

A total of 917 new daily commuting pedestrian trips are anticipated with the 2020 LRDP, with the majority (76 percent) occurring within a one-mile radius of campus. The undergraduate population group is anticipated to generate the most new walking trips, as undergraduate students typically live in areas close to campus and have limited vehicle ownership.

In addition to the new commute walking trips, all transit and vehicle trips begin and end with a pedestrian trip. Ridership on the existing transit routes that serve UC Berkeley were reviewed to estimate the number of transit / pedestrian trips added to the system. The proposed location of future parking zones, their anticipated parking supply, and average vehicle occupancies were used to estimate new pedestrian trips from potential new parking areas. The resulting pedestrian volumes at the primary pedestrian gateways to the Campus Park are presented in Table F.1-13.

TABLE F.1-13 **AM Peak Hour Campus Entry Pedestrian Volumes**

Entry Point	Existing Volume[b]	New Walking Trips	From Transit	From Parking Garages[c]	Total Future Volume	Percent Increase
Hearst at						
Oxford	484	12	5	628	1,129	133%
Arch	95	2	1	0	98	3%
Euclid	1,105	28	11	0	1,144	4%
LeRoy	536	13	5	0	554	3%
La Loma	621	15	6	0	642	3%
Oxford at						
Berkeley	589	15	6	359	969	65%
University	203	5	3	718	929	358%
Center	760	19	138	807	1,724	127%
Bancroft	540	13	6	718	1,277	136%
Bancroft at						
Dana	1,141	28	12	90	1,271	11%
Telegraph	3,320	83	33	269	3,705	12%
Bowditch	884	22	9	359	1,274	44%
College	1,018	25	10	180	1,233	21%
Piedmont	670	17	7	54	748	12%

[a] Based on existing peak hour bicycle volumes, and AM peak hour LRDP trip generation.

[b] Existing bicycle volumes as reported in the Downtown/Southside TDM Study.

[c] Walking trips to and from potential parking facilities as shown in Figure F.1-2.

Source: Fehr & Peers Associates, June 2003.

Pedestrian volumes at the gateways, primarily along Oxford Street, are anticipated to increase substantially since much of the new parking supply is planned for the downtown zone. The pedestrian increases at specific intersections are approximations only, as the actual volume increases will be directly related to the specific parking locations.

The increased pedestrian volume at these campus gateways, and at intersections in the immediate vicinity of the Campus Park, will affect the way the City manages traffic operations and intersection improvements in the future. For example, as the volume of pedestrians crossing at signalized intersections such as Center Street / Oxford Street, Bancroft Way / Telegraph Avenue, and Hearst Avenue / Oxford Street grows, the amount of green time allocated to certain signal phases may need to be increased. At stop-controlled intersections such as Bancroft Way / Piedmont Avenue / Gayley Road, additional signing or traffic calming measures would be needed to ensure pedestrian safety and appropriate yielding of right-of-way. Finally, at uncontrolled locations (such as the highly used crossing areas along Gayley Road, Hearst Street near LeRoy Avenue, and Bancroft Way near the athletic complex), measures such as mid-block crosswalks, in-pavement flashers, signalized pedestrian crossings, or crossing prohibitions, may be needed to ensure pedestrian safety.

TRANSIT SERVICE

New transit ridership with development of the 2020 LRDP was developed as part of the trip generation development, as shown in Table F.1-14. Note that only commute trips are represented in this table.

Approximately 818 new transit tips would be generated per day with the LRDP, including 269 AM and 259 PM peak hour trips. The majority of new transit trips would occur on the BART and AC Transit systems. Graduate and undergraduate students are projected to make the most new transit trips.

AC Transit. New AC Transit trips during the AM and PM peak hours were estimated for each line that currently serves the UC Berkeley campus, based on responses to the *Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey* and the *Fall 2000 Student Housing and Transportation Survey*. New transit riders were assigned to the routes based on their existing share of UC Berkeley riders, as presented in Table F.1-15. Some routes do not provide direct service to UC Berkeley, so it was assumed that riders from these routes would transfer to routes that provide direct service to UC Berkeley.

Route 51 is estimated to experience the greatest increase in ridership with the LRDP, as approximately 35 new AM and 32 new PM peak hour trips would be added to this route. Headways for this route during peak hours are approximately 10-minutes, resulting in approximately 5-6 new riders per bus during the AM and PM peak hours. The average peak hour load factors for Route 51 are well below 1.0, as indicated in Table F.1-15. There are short periods during the peak hours when Route 51 ridership is higher than seating capacity in the Southside area, i.e. a peak of 47 riders with only 40 seats. However, for planning purposes AC Transit uses 150% of seating capacity, or 60 riders, as the approximate maximum occupancy. The additional 5 to 6 riders generated per peak hour bus by the project is thus not projected to cause any peak hour bus to exceed its practical capacity.

BART. New BART trips with LRDP development were added to the routes that serve the Downtown Berkeley BART Station: Richmond-Fremont and Millbrae/Richmond. An aggregate load factor for this station area was calculated, as the lines that would attract new riders are unknown. As shown in Table F.1-14, the AM and PM peak hour load factors would increase by 0.02, with the resulting load factor less than 1.0.

New BART riders could be accommodated on the system as a whole, although some trains during peak hours could experience standing room only conditions. This is a less-than-significant impact.

TABLE F.1-14   **2020 LRDP New Daily and Peak Hour Transit Trip Generation by Population Segment**[a]

Population Segment	Peak Hour	Total Public Transit	AC Transit	BART	Campus Shuttle	LBL/RFS Shuttle
Faculty	Daily	22	7	14	0	1
	AM	7	2	4	0	0
	PM	3	1	4	0	0
Post-Doc and Visiting Scholars	Daily	112	32	70	0	10
	AM	32	10	20	0	3
	PM	20	7	20	0	2
Academic Staff	Daily	76	15	62	0	10
	AM	16	3	13	0	2
	PM	40	8	13	0	5
Non-Academic Staff	Daily	157	51	64	2	21
	AM	66	21	27	0	9
	PM	84	28	27	2	12
Undergraduate Students	Daily	186	111	44	15	4
	AM	61	36	15	5	1
	PM	46	28	15	4	1
Graduate Students	Daily	265	167	72	11	3
	AM	87	54	24	3	1
	PM	66	41	24	3	1
Total	Daily	818	383	326	28	50
	AM	269	126	103	8	16
	PM	259	113	103	9	21

[a] Based on data from the Spring 2001 Faculty/Staff Housing, Transportation, and Parking Survey and the Fall 2000 Student Housing and Transportation Survey. Trips only include commute trips. Daily trips are roundtrips including both in and out trips. AM peak hour trips are in trips, and PM peak hour trips are out trips only. Public transit trips do not sum to total as some transit riders use more than one transit provider per trip.

Source: Fehr & Peers Associates, June 2003.

BEAR Transit. Ridership on BEAR Transit, the campus shuttle, will increase with the growth in campus population. Ridership will grow due to an increase in commute trips (i.e., shuttle trips linked with BART, bus, or auto trips), as well as trips throughout the day for various purposes (i.e., to travel from one end of campus to the other, to travel between campus and downtown, or to commute to or from the campus outside the peak commute times). The peak hour commute trip growth on BEAR Transit is estimated in Table F.1-14; however, many more mid-day trips will be generated as the population grows on campus. The actual trip growth will need to be monitored by the Parking and Transportation Office, and the service frequency may need to be increased, along with route adjustments, as ridership grows. The shuttle provides a critical link for many who use BART and AC Transit to commute to campus, or for other mid-day trip purposes; therefore, meeting the demand for shuttle service is key to maximizing transit use.

TABLE F.1-15 **NEW PEAK HOUR AC TRANSIT RIDERSHIP ESTIMATE BY ROUTE**[a]

	AM Peak Hour			PM Peak Hour		
Line	New Riders	Transfers	Boarding/ Alighting in Campus Area	New Riders	Transfers	Boarding/ Alighting in Campus Area
6[b]	3			3		
7	14	1	15	12	1	13
8	1		1	1		1
9	1		1	1		1
15	4		4	3		3
17[b]	1			1		
40/40L	14	1	15	12	1	13
43	7		7	6		6
51	33	2	35	30	2	32
52	14	1	15	13	1	14
52L	11	1	12	10	1	11
65	4		4	4		4
67	2		2	2		2
72/72L/73[b]	2			2		
A[b]	1			1		
E[b]	1			1		
F/FS	10	1	11	9	1	10
Total	126	7	126	113	7	113

[a] Based on existing peak hour AC Transit ridership and peak hour LRDP trip generation.

[b] These routes provide transfer service and do not provide direct access to UC Berkeley. Passengers must transfer to another route to complete their trip.

Source: Fehr & Peers Associates, June 2003.

TABLE F.1-16 **BART LINES PEAK HOUR LOAD FACTORS**

	AM Peak Hour		PM Peak Hour	
Station	Load Factor near Campus Park[a]	LRDP Load Factor near Campus Park[b]	Load Factor near Campus Park[a]	LRDP Load Factor near Campus Park[b]
Downtown Berkeley	0.92	0.94	0.83	0.85

[a] Fall 2002 average peak hour load factor at the Downtown Berkeley Station for the Richmond - Fremont and Daly City/Colma – Richmond lines.

[b] Average peak hour load factor at the Downtown Berkeley Station for the Richmond – Fremont and Daly City/Colma – Richmond lines with the 2020 LRDP estimated demand.

Source: Bay Area Rapid Transit District, January 2003 and Fehr & Peers Associates, June 2003.

F.1.5   REFERENCES

[1] California Department of Transportation (Caltrans), 2001 Traffic Volumes on the California State Highway System, http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2001all.htm, retrieved April 4, 2004.

[2] California Department of Transportation (Caltrans), 2001 Traffic Volumes on the California State Highway System, http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2001all.htm, retrieved April 4, 2004.

[3] California Department of Transportation (Caltrans), 2001 Traffic Volumes on the California State Highway System, http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2001all.htm, retrieved April 4, 2004.

[4] California Department of Transportation (Caltrans), 2001 Traffic Volumes on the California State Highway System, http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2001all.htm, retrieved April 4, 2004.

[5] *City of Berkeley Draft General Plan EIR*, February 2001, Table IV.D-1, page 100.

[6] *City of Berkeley Draft General Plan EIR*, February 2001, Table IV.D-1, page 100.

[7] *City of Berkeley Draft General Plan EIR*, February 2001, Table IV.D-1, page 100.

[8] *City of Berkeley Draft General Plan EIR*, February 2001, Table IV.D-1, page 100.

[9] *City of Berkeley Draft General Plan EIR*, February 2001, Table IV.D-1, page 100.

[10] *City of Berkeley Draft General Plan EIR*, February 2001, Table IV.D-1, page 100.

[11] Mundie and Associates, *Final Environmental Impact Report Vista College Permanent Facility Project*, April 2002.

APPENDIX F.2

**EXISTING PEAK HOUR INTERSECTION VOLUMES
AND INTERSECTION LANE CONFIGURATIONS**

1

San Pablo Ave.

15 (18)
891 (659)
106 (169)

90 (154)
768 (736)
147 (145)

Marin Ave.

38 (18)
672 (656)
235 (137)

102 (227)
363 (1,022)
59 (114)

2

The Alameda

23 (77)
279 (178)
38 (43)

48 (69)
420 (480)
20 (17)

Marin Ave.

33 (50)
494 (534)
291 (193)

173 (316)
189 (322)
7 (1)

3

Sixth St.

28 (52)
45 (47)
11 (24)

20 (11)
430 (489)
47 (53)

Gilman St.

21 (28)
416 (497)
114 (109)

122 (346)
24 (46)
56 (159)

4

San Pablo Ave.

125 (112)
1,055 (830)
74 (126)

42 (82)
318 (233)
62 (40)

Gilman St.

75 (174)
189 (345)
96 (155)

113 (140)
401 (1,057)
25 (87)

5

Shattuck Ave.

28 (26)
961 (444)
174 (112)

40 (228)
185 (214)
32 (29)

Rose St.

28 (69)
174 (253)
40 (49)

55 (159)
191 (641)
11 (14)

6

MLK Jr. Way

26 (12)
617 (541)
35 (30)

30 (65)
248 (296)
58 (68)

Cedar St.

14 (20)
276 (297)
62 (57)

33 (53)
292 (614)
44 (65)

7

Shattuck Ave.

52 (72)
933 (619)
127 (144)

56 (150)
268 (341)
94 (59)

Cedar St.

44 (86)
257 (275)
86 (67)

48 (138)
256 (795)
41 (56)

8

Oxford St.

19 (17)
531 (196)
34 (17)

19 (31)
343 (340)
144 (61)

Cedar St.

18 (18)
314 (307)
75 (57)

45 (91)
186 (464)
56 (81)

9

Euclid Ave.

141 (44)
295 (127)
23 (7)

8 (0)
209 (91)
28 (18)

Cedar St.

50 (51)
143 (180)
117 (49)

30 (90)
85 (226)
29 (29)

10

Golf Course Dr.

4 (8)
52 (30)
25 (33)

16 (25)
90 (111)
169 (22)

Grizzly Peak Blvd.

Centennial Dr.

6 (3)
165 (159)
143 (45)

31 (162)
13 (65)
13 (250)

11

Shattuck Ave.

57 (54)
810 (537)
199 (117)

51 (136)
225 (321)
11 (122)

Hearst Ave.

31 (67)
278 (232)
24 (20)

19 (34)
291 (715)
43 (63)

KEY:

XX (YY) = AM (PM)
Peak Hour
Traffic Volumes

 = Traffic Signal

 = Stop Sign

Source: Fehr and Peers, November 2002

FIGURE F.2-1
EXISTING CONDITIONS
INTERSECTION VOLUMES AND LANE CONFIGURATION

Source: Fehr and Peers, November 2002

FIGURE F.2-2
EXISTING CONDITIONS
INTERSECTION VOLUMES AND LANE CONFIGURATION

UNIVERSITY OF CALIFORNIA, BERKELEY
2020 LRDP DRAFT EIR

23 Milvia St. — University Ave.
63 (74) 203 (102) 6 (13)
15 (33) 406 (651) 18 (22)
37 (47) 656 (649) 137 (108)
100 (127) 98 (218) 21 (44)

24 SB Shattuck Ave. — University Ave.
105 (146) 767 (576) 49 (55)
314 (640) 356 (642) 26 (74)
115 (131) 401 (374) 162 (254)

25 NB Shattuck Ave. — University Ave.
235 (433)
444 (454)
458 (938) 168 (208)

26 Oxford St. — University Ave.
77 (106) 1,101 (835) 41 (32)
23 (40) 12 (37) 6 (9)
300 (306) 38 (39) 217 (330)
147 (278) 487 (771) 4 (16)

27 Gayley Rd. — University Dr.
75 (52) 543 (505)
53 (41) 73 (81)
69 (59) 476 (552)

28 Oxford St. — Addison St.
61 (28) 1,165 (952)
4 (10) 31 (114)
54 (32) 647 (1,006)

29 SB Shattuck Ave. — Center St.
71 (126) 779 (790) 15 (41)
102 (160) 17 (29)
69 (104) 51 (179)

30 NB Shattuck Ave. — Center St.
26 (58) 77 (139)
26 (81) 56 (55)
42 (50) 616 (982) 51 (86)

31 Oxford St. — Center St.
39 (67) 1,145 (980) 11 (19)
8 (16) 6 (9) 19 (37)
26 (33) 10 (6) 43 (84)
50 (87) 663 (998) 42 (24)

32 Gayley Rd. — Stadium Rim Rd.
0 (0) 471 (459) 128 (135)
118 (232) 1 (0) 18 (47)
12 (20) 5 (7) 14 (15)
0 (0) 386 (359) 19 (19)

33 Oxford St. — Allston Way
34 (75) 1,111 (1,082) 59 (26)
16 (23) 33 (110)
17 (46) 798 (1,002)

KEY:
XX (YY) = AM (PM) Peak Hour Traffic Volumes
= Traffic Signal
= Stop Sign

FIGURE F.2-3
EXISTING CONDITIONS
INTERSECTION VOLUMES AND LANE CONFIGURATION

34 — Oxford St. / Kittridge St.

18 (96)
1,122 (1,108)

6 (51)
23 (69)

13 (45)
801 (995)

35 — Centennial Dr. / Stadium Rim Rd.

22 (57)
94 (102)

71 (146)
114 (204)

70 (99)
160 (140)

36 — Shattuck Ave. / Bancroft Way

12 (23)
788 (949)

71 (111)
51 (97)
116 (258)

62 (38)

29 (30)
912 (1,186)

37 — Fulton St. / Bancroft Way

79 (165)
1,071 (1,066)

650 (898)
173 (287)
84 (12)

13 (18)
146 (164)

38 — Ellsworth St. / Bancroft Way

11 (100)

39 (6)
674 (877)

241 (348)
60 (11)

39 — Dana St. / Bancroft Way

721 (873)
145 (282)

40 — Telegraph Ave. / Bancroft Way

460 (675)

427 (495)

41 — Bowditch St. / Bancroft Way

494 (494)
99 (99)

191 (191)

42 — College Ave. / Bancroft Way

203 (226)
34 (83)

343 (371)

43 — Gayley Rd. / Bancroft Way / Piedmont Ave.

123 (159)
344 (357)

131 (152)
553 (439)

44 — Shattuck Ave. / Durant Ave.

8 (51)
886 (1,099)
67 (88)

9 (9)
70 (72)
35 (55)

55 (69)
943 (1,216)
136 (120)

KEY:

XX (YY) = AM (PM) Peak Hour Traffic Volumes

= Traffic Signal

= Stop Sign

Source: Fehr and Peers, November 2002

FIGURE F.2-4
EXISTING CONDITIONS
INTERSECTION VOLUMES AND LANE CONFIGURATION

45

Fulton St.

656 (760)
459 (527)

Durant Ave.

123 (137)
262 (219)
27 (33)

46

Telegraph Ave.

Durant Ave.

73 (202)
387 (690)

362 (362)
86 (119)

47

College Ave.

23 (56)
13 (16)

Durant Ave.

64 (127)
228 (268)
87 (202)

213 (189)
66 (62)

48

Piedmont Ave.

345 (427)

Durant Ave.

158 (179)
86 (197)

489 (398)

49

Shattuck Ave.

19 (49)
868 (1,089)
19 (19)

39 (106)
28 (97)
62 (144)

Channing Way

12 (18)
59 (76)
42 (81)

42 (83)
1,070 (1,279)
96 (94)

50

Fulton St.

51 (61)
543 (686)
86 (48)

72 (257)
7 (15)

Channing Way

132 (133)
20 (38)

51

Telegraph Ave.

9 (46)
98 (227)

Channing Way

16 (23)
179 (144)

56 (86)
423 (410)
79 (41)

52

College Ave.

2 (24)
92 (206)
6 (7)

43 (47)
150 (141)
88 (124)

Channing Way

21 (5)
76 (95)
31 (58)

26 (31)
256 (189)
22 (41)

53

Shattuck Ave.

46 (88)
903 (1,208)

75 (152)
276 (336)
185 (268)

Haste St.

66 (104)
1,117 (1,277)

54

Fulton St.

145 (154)
433 (580)

380 (604)
23 (50)

Haste St.

55

Telegraph Ave.

34 (57)
334 (470)

Haste St.

216 (186)
520 (476)

KEY:

XX (YY) = AM (PM)
Peak Hour
Traffic Volumes

⊕ = Traffic Signal

• = Stop Sign

Source: Fehr and Peers, November 2002

FIGURE F.2-5
EXISTING CONDITIONS
INTERSECTION VOLUMES AND LANE CONFIGURATION

56

College Ave.

69 (56)
115 (337)

21 (29)
223 (244)
48 (90)

Haste St.

167 (88)
267 (236)

57

MLK Jr. Way

163 (272)
868 (860)
88 (113)

Dwight Way

68 (49)
419 (444)
83 (111)

62 (71)
690 (821)
66 (60)

58

Shattuck Ave.

0 (0)
989 (1,390)
95 (133)

Dwight Way

66 (77)
420 (426)
151 (200)

1,094 (1,273)
113 (123)

59

Fulton St.

449 (631)

Dwight Way

620 (664)
6 (15)

12 (62)

60

Telegraph Ave.

Dwight Way

66 (130)
479 (671)
565 (813)

697 (590)
78 (149)

61

College Ave.

150 (374)
10 (49)

Dwight Way

68 (34)
352 (483)
85 (129)

365 (294)
51 (52)

62

Piedmont Ave.

324 (353)
8 (8)

48 (112)

42 (53)

Dwight Way

91 (132)
143 (162)
238 (307)

583 (527)
0 (1)

63

Prospect St.

109 (165)
14 (27)

15 (16)
53 (93)

Dwight Ave.

246 (187)
72 (128)

64

Shattuck Ave.

546 (825)
736 (957)

Adeline St.

723 (903)

4 (2)

784 (690)

65

Warring St.

31 (30)
650 (765)

779 (780)
34 (75)

Derby St.

14 (7)
20 (62)

66

813 (741)
52 (31)

Derby St.

Claremont Blvd.

665 (872)
12 (11)

5 (4)
64 (225)

KEY:

XX (YY) = AM (PM)
Peak Hour
Traffic Volumes

= Traffic Signal

= Stop Sign

FIGURE F.2-6
EXISTING CONDITIONS
INTERSECTION VOLUMES AND LANE CONFIGURATION

67 — Seventh St. / Ashby Ave.
- 224 (476), 193 (270), 54 (107)
- 25 (31), 663 (774), 111 (98)
- 433 (263), 915 (546), 306 (113)
- 62 (134), 162 (404), 54 (68)

68 — San Pablo Ave. / Ashby Ave.
- 128 (113), 741 (873), 137 (185)
- 135 (143), 613 (612), 51 (20)
- 84 (86), 584 (592), 134 (170)
- 173 (162), 521 (999), 53 (79)

69 — Adeline St. / Ashby Ave.
- 96 (169), 438 (700), 11 (31)
- 14 (39), 549 (547), 83 (68)
- 189 (135), 564 (491), 49 (39)
- 74 (92), 567 (693), 61 (85)

70 — Shattuck Ave. / Ashby Ave.
- 35 (56), 450 (585), 124 (200)
- 182 (176), 550 (541), 40 (32)
- 33 (33), 557 (536), 31 (40)
- 77 (52), 590 (556), 26 (30)

71 — Telegraph Ave. / Ashby Ave.
- 103 (63), 623 (902), 148 (176)
- 83 (99), 573 (642), 89 (148)
- 86 (68), 549 (531), 120 (184)
- 150 (210), 985 (675), 80 (75)

72 — College Ave. / Ashby Ave.
- 95 (58), 232 (279), 118 (159)
- 229 (151), 611 (466), 4 (10)
- 33 (15), 490 (683), 92 (87)
- 79 (75), 323 (293), 26 (68)

73 — Claremont Ave. / Ashby Ave.
- 59 (49), 272 (285), 321 (432)
- 429 (232), 637 (504), 90 (66)
- 43 (47), 504 (592), 13 (5)
- 35 (45), 288 (373), 153 (189)

KEY:

XX (YY) = AM (PM) Peak Hour Traffic Volumes

= Traffic Signal

FIGURE F.2-7
EXISTING CONDITIONS
INTERSECTION VOLUMES AND LANE CONFIGURATION

:

APPENDIX F.3

LEVEL OF SERVICE SUMMARIES

TABLE F.3-1
2020 WITHOUT PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE

Intersection	Existing				2020 Without Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]
Signalized Intersections[a]								
1. Marin Avenue / San Pablo Avenue	**79**	**E**	50	D	>80	**F**	80	**F**
2. .Marin Avenue / The Alameda	13	B	15	B	15	B	22	C
3. Gilman Street / Sixth Street	11	B	**75**	**E**	16	B	>80	**F**
4. Gilman Street / San Pablo Avenue	41	D	42	D	43	D	62	E
5. Shattuck Avenue / Rose Street	7	A	12	B	10	A	16	B
6. Cedar Street / MLK Way	17	B	25	C	31	C	47	D
7. Cedar Street / Shattuck Avenue	10	A	14	B	10	B	16	B
8. Cedar Street / Oxford Street	49	D	22	C	**58**	**E**	41	D
9. Cedar Street / Euclid Avenue	13	B	12	B	14	B	14	B
11. Hearst Avenue / Shattuck Avenue	6	A	15	B	8	A	22	C
12. Hearst Avenue / Oxford Street	10	B	54	D	12	B	52	D
16. Hearst Avenue / Euclid Avenue	15	B	20	B	18	B	17	B
18. Hearst Ave / Gayley Rd / La Loma Ave	23	C	25	C	**57**	**E**	**67**	**E**
19. Berkeley Way / Oxford Street	5	A	7	A	7	A	10	A
20. University Avenue / Sixth Street	>80	**F**	>80	**F**	>80	**F**	>80	**F**
21. University Avenue / San Pablo Avenue	>80	**F**	>80	**F**	>80	**F**	>80	**F**
22. University Avenue / MLK Way	21	C	32	C	30	C	41	D
23. University Avenue / Milvia Street	11	B	17	B	13	B	19	B
24. University Avenue / Shattuck Avenue (West)	20	B	18	B	22	C	18	B
25. University Avenue / Shattuck Avenue (East)	16	B	17	B	16	B	18	B
26. University Avenue / Oxford Street	29	C	18	B	29	C	23	C
29. Center Street / Shattuck Avenue (West)	15	B	14	B	16	B	17	B
30. Center Street / Shattuck Avenue (East)	5	A	8	A	5	A	10	A
31. Center Street / Oxford Street	8	A	8	A	12	B	10	B
36. Bancroft Way / Shattuck Avenue	9	A	13	B	10	A	17	B
37. Bancroft Way / Fulton Street	6	A	7	A	9	A	9	A
40. Bancroft Way / Telegraph Avenue	20	C	18	B	22	C	18	B
44. Durant Avenue / Shattuck Avenue	11	B	14	B	16	B	19	B

TABLE F.3-1
2020 WITHOUT PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE

	Existing				2020 Without Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]
45. Durant Avenue / Fulton Street	7	A	7	A	10	A	10	A
46. Durant Avenue / Telegraph Avenue	11	B	13	B	11	B	13	B
47. Durant Avenue / College Avenue	9	A	13	B	13	B	14	B
49. Channing Way / Shattuck Avenue	5	A	6	A	6	A	9	A
51. Channing Way / Telegraph Avenue	9	A	13	B	12	B	16	B
52. Channing Way / College Avenue	16	B	10	B	22	C	16	B
53. Haste Street / Shattuck Avenue	51	D	10	A	43	D	15	B
54. Haste Street / Fulton Street	14	B	19	B	15	B	23	C
55. Haste Street / Telegraph Avenue	16	B	13	B	17	B	14	B
56. Haste Street / College Avenue	8	A	9	A	11	B	11	B
57. Dwight Way / MLK Way	14	B	18	B	21	C	24	C
58. Dwight Way / Shattuck Avenue	10	B	13	B	14	B	16	B
59. Dwight Way / Fulton Street	11	B	14	B	14	B	16	B
60. Dwight Way / Telegraph Avenue	16	B	20	C	18	B	30	C
61. Dwight Way / College Avenue	10	B	15	B	12	B	14	B
62. Dwight Way / Piedmont Avenue	9	A	13	B	11	B	13	B
64. Adeline Street / Shattuck Avenue	15	B	24	C	18	B	32	C
66. Derby Street / Claremont Boulevard	13	B	16	B	19	B	23	C
67. Ashby Avenue / Seventh Street	34	C	52	D	54	D	>80	F
68. Ashby Avenue / San Pablo Avenue	29	C	31	C	36	D	46	D
69. Ashby Avenue / Adeline Street	40	D	37	D	42	D	39	D
70. Ashby Avenue / Shattuck Avenue	15	B	30	C	16	B	37	D
71. Ashby Avenue / Telegraph Avenue	26	C	26	C	26	C	27	C
72. Ashby Avenue /College Avenue	31	C	29	C	36	D	37	D
73. Ashby Avenue / Claremont Avenue	22	C	22	B	24	C	25	C
74. Tunnel Road / Highway 13	16	B	14	B	16	B	15	B
All-Way Stop-Controlled Intersections[b]								
10. Grizzly Peak Blvd/Centennial /Golf Course Dr	11	B	18	C	11	B	23	C
32. Stadium Rim Road / Gayley Road	26	D	35	D	>50	F	>50	F

TABLE F.3-1
2020 WITHOUT PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE

	Existing				2020 Without Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]
35. Stadium Rim Road / Centennial Drive	9	A	12	B	10	A	12	B
41. Bancroft Way / Bowditch Street	12	B	12	B	12	B	13	B
42. Bancroft Way / College Avenue	12	B	12	B	11	B	14	B
43. Bancroft Way / Piedmont Avenue[c]	**>50**	**F**	**>50**	**F**	**>50**	**F**	**>50**	**F**
48. Durant Avenue / Piedmont Avenue	17	C	18	C	26	D	27	D
50. Channing Way / Fulton Street	12	B	18	C	15	B	27	D
65. Derby Street / Warring Street	**>50**	**F**	**>50**	**F**	**>50**	**F**	**>50**	**F**
Side-Street Stop-Controlled Intersections[d]								
13. Hearst Avenue / Spruce Street	12 (SB)	B	16 (SB)	C	13 (SB)	B	20 (SB)	C
14. Hearst Avenue / Arch Street / Le Conte Avenue	11 (SB)	B	14 (SB)	B	11 (SB)	B	18 (SB)	C
15. Hearst Avenue / Scenic Avenue	11 (SB)	B	12 (SB)	B	10 (SB)	A	13 (SB)	B
17. Hearst Avenue / Le Roy Avenue	12 (SB)	B	15 (SB)	C	13 (SB)	B	19 (SB)	C
27. East Gate / Gayley Road	22 (EB)	C	20 (EB)	C	**>35 (EB)**	**E**	27 (EB)	D
28. Addison Street / Oxford Street	10 (EB)	A	17 (EB)	C	11 (EB)	B	18 (EB)	C
33. Allston Way / Oxford Street	32 (EB)	D	30 (EB)	D	33 (EB)	D	**36 (EB)**	**E**
34. Kittredge Street / Oxford Street	20 (EB)	C	**>50 (EB)**	**F**	23 (EB)	C	**>50 (EB)**	**F**
38. Bancroft Way / Ellsworth Street	17 (NB)	C	13 (NB)	B	17 (NB)	C	28 (NB)	D
39. Bancroft Way / Dana Street	0	A	0	A	0	A	0	A
63. Dwight Way / Prospect Street	10 (SB)	B	12 (SB)	B	10 (SB)	B	12 (SB)	B

Notes:

Bold – Indicates an intersection operated at unacceptable LOS E or F.

[a] Signalized intersection level of service based on average control delay per vehicle, according to the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000.

[b] All-way stop-controlled intersection level of service based on average control delay per vehicle, according to the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000.

[c] Based on 2000 HCM methodology, the intersection operates at LOS D during the AM peak hour and LOS C during the PM peak hour under Existing Conditions and LOS D under both AM and PM peak hours under 2020 Without Project Conditions. However, this does not take into account pedestrian volumes. Based on field observations, this intersection has a heavy pedestrian volume, result-ing in major delays for vehicles under existing conditions which are expected to continue in the future.

[d] Side-street stop-controlled intersection level of service based on worst approach control delay, according to the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000.

Source: Fehr & Peers Associates, June 2003.

TABLE F.3-2

PROJECTED YEAR 2010 AND 2025 LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project			2025 Without Project		
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS
CMP	I-80	North of Gilman	EB	7,200	10,001	1.39	F	10,201	1.42	F
			WB	7,200	8,900	1.24	F	9,720	1.35	F
CMP	I-80	North of University	EB	6,400	9,340	1.46	F	9,274	1.45	F
			WB	6,400	8,270	1.29	F	8,261	1.29	F
CMP	I-80	North of Ashby	EB	6,400	9,152	1.43	F	9,078	1.42	F
			WB	6,400	8,159	1.27	F	8,285	1.29	F
CMP	I-80	South of Ashby	EB	6,400	9,888	1.55	F	10,499	1.64	F
			WB	6,400	9,516	1.49	F	9,119	1.42	F
CMP	I-580	West of SR 24	EB	8,000	9,779	1.22	F	10,016	1.25	F
			WB	8,000	7,907	0.99	E	8,410	1.05	F
CMP	I-580	East of SR 24	EB	7,200	9,339	1.30	F	9,513	1.32	F
			WB	7,200	5,633	0.78	C	6,011	0.83	D
CMP	SR 24	East of SR 13	EB	6,600	9,937	1.51	F	10,294	1.56	F
			WB	6,600	6,172	0.94	E	6,513	0.99	E
CMP	SR 24	East of Broadway	EB	6,600	8,463	1.28	F	8,695	1.32	F
			WB	6,600	4,444	0.67	B	4,707	0.71	C
CMP	SR 24	East of Telegraph	EB	6,600	7,860	1.19	F	8,215	1.24	F
			WB	6,600	4,041	0.61	B	4,332	0.66	B
CMP	SR 24	West of Telegraph	EB	6,600	7,757	1.18	F	8,127	1.23	F
			WB	6,600	4,847	0.73	C	5,126	0.78	C
CMP	SR 13	South of SR 24	NB	3,300	4,036	1.22	F	4,208	1.28	F
			SB	3,300	4,691	1.42	F	4,649	1.41	F
CMP	SR 13	East of Claremont	EB	650	1,213	1.87	F	1,246	1.92	F
			WB	650	900	1.38	F	873	1.34	F
CMP	SR 13 (Ashby)	East of College	EB	650	881	1.36	F	956	1.47	F
			WB	650	535	.82	D	547	.84	D

TABLE F.3-2
PROJECTED YEAR 2010 AND 2025 LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project Volume[c]	V/C	LOS	2025 Without Project Volume[d]	V/C	LOS
CMP	SR 13 (Ashby)	East of Telegraph	EB	650	644	0.99	F	697	1.07	F
			WB	650	366	0.56	A	379	0.58	A
CMP	SR 13 (Ashby)	East of Shattuck	EB	650	761	1.17	F	869	1.34	F
			WB	650	601	0.92	E	694	1.07	F
CMP	SR 13 (Ashby)	East of MLK	EB	650	861	1.32	F	942	1.45	F
			WB	650	756	1.16	F	739	1.14	F
CMP	SR 13 (Ashby)	East of Sacramento	EB	650	836	1.29	F	984	1.51	F
			WB	650	545	0.84	D	538	0.83	D
CMP	SR 13 (Ashby)	East of San Pablo	EB	650	1,290	1.98	F	1,291	1.99	F
			WB	650	710	1.09	F	577	.89	E
CMP	SR 13 (Ashby)	East of Seventh	EB	1,300	1,280	0.98	E	1,299	1.00	F
			WB	1,300	1,018	0.78	C	633	0.49	A
CMP	SR 13 (Ashby)	West of Seventh	EB	1,300	1,183	0.91	E	900	0.69	B
			WB	1,300	1,320	1.02	F	488	0.38	A
CMP	University	East of MLK	EB	1,600	793	0.50	A	865	0.54	A
			WB	1,600	1,118	0.70	B	1,086	0.68	B
CMP	University	East of Sacramento	EB	1,600	1,158	0.72	C	1,213	0.76	C
			WB	1,600	1,552	0.97	E	1,481	0.93	E
CMP	University	East of San Pablo	EB	1,600	1,162	0.73	C	1,282	0.80	D
			WB	1,600	1,647	1.03	F	1,517	0.95	E
CMP	University	East of Sixth	EB	1,600	832	0.51	A	1,013	0.63	B
			WB	1,600	1,552	0.97	E	1,499	0.4	E
CMP	University	West of Sixth	EB	1,600	890	0.56	A	1,056	0.66	B
			WB	1,600	1,650	1.03	F	1,695	1.06	F
CMP	San Pablo	North of Marin	NB	1,600	1,035	0.65	B	1,089	0.68	C
			SB	1,600	494	0.31	A	668	0.42	A

TABLE F.3-2

PROJECTED YEAR 2010 AND 2025 LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project			2025 Without Project		
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS
CMP	San Pablo	North of Gilman	NB	1,600	1,521	0.95	E	1,605	1.00	F
			SB	1,600	1,347	0.84	D	1,464	0.92	E
CMP	San Pablo	North of Cedar	NB	1,600	2,078	1.30	F	2,240	1.40	F
			SB	1,600	1,856	1.16	F	2,021	1.26	F
CMP	San Pablo	North of University	NB	1,600	2,217	1.39	F	2,351	1.47	F
			SB	1,600	2,179	1.36	F	2,303	1.44	F
CMP	San Pablo	North of Dwight	NB	1,600	2,128	1.33	F	2,205	1.38	F
			SB	1,600	2,058	1.29	F	2,133	1.33	F
CMP	San Pablo	North of Ashby	NB	1,600	1,969	1.23	F	2,032	1.27	F
			SB	1,600	2,381	1.49	F	2,374	1.48	F
CMP	San Pablo	South of Ashby	NB	1,600	1,523	0.95	E	1,645	1.03	F
			SB	1,600	1,617	1.01	F	1,939	1.21	F
CMP	Shattuck	South of University	NB	1,600	1,237	0.77	C	1,304	0.82	D
			SB	1,600	821	0.51	B	1,041	0.65	B
CMP	Shattuck	South of Dwight	NB	1,600	1,738	1.09	F	1,878	1.17	F
			SB	1,600	2,216	1.39	F	2,295	1.43	F
CMP	Adeline	North of Ashby	NB	2,400	1,321	0.55	A	1,496	0.62	B
			SB	2,400	2,032	0.85	D	2,116	0.88	D
CMP	Adeline	South of Ashby	NB	2,400	1,359	0.57	A	1,587	0.66	B
			SB	2,400	2,089	0.87	D	2,208	0.92	E
CMP	MLK	South of Adeline	NB	2,400	1,539	0.64	B	1,746	0.73	C
			SB	2,400	2,546	1.06	F	2,694	1.12	F
MTS	Solano Ave	East of San Pablo	EB	550	364	0.66	B	444	0.81	D
			WB	550	315	0.57	A	344	0.63	B
MTS	Solano Ave	East of Colusa	EB	550	599	1.09	F	676	1.23	F
			WB	550	590	1.07	F	649	1.18	F

TABLE F.3-2

PROJECTED YEAR 2010 AND 2025 LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project			2025 Without Project		
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS
MTS	Sutter	East of the Alameda	EB	550	638	1.16	F	710	1.29	F
			WB	550	478	0.87	D	515	0.94	E
MTS	Henry	North of Rose	NB	550	1,141	2.07	F	1,248	2.27	F
			SB	550	1,015	1.85	F	1,059	1.93	F
MTS	Shattuck	North of Cedar	NB	1,600	1,673	1.05	F	1,885	1.18	F
			SB	1,600	1,245	0.78	C	1,370	0.86	D
MTS	Shattuck	North of Hearst	NB	1,600	1,798	1.12	F	2,049	1.28	F
			SB	1,600	1,361	0.85	D	1,550	.97	F
MTS	Shattuck	North of University	NB	1,600	1,902	1.19	F	2,100	1.31	F
			SB	1,600	1,507	0.94	E	1,723	1.08	F
MTS	The Alameda	South of Solano	NB	1,100	434	0.39	A	474	0.43	A
			SB	1,100	285	0.26	A	310	0.28	A
MTS	The Alameda	South of Marin	NB	1,100	1,369	1.24	F	1,438	1.31	F
			SB	1,100	926	0.84	D	1,037	0.94	E
MTS	MLK	North of Cedar	NB	550	554	1.01	F	607	1.10	F
			SB	550	303	0.55	A	379	0.69	B
MTS	MLK	North of Hearst	NB	550	582	1.06	F	634	1.15	F
			SB	550	505	0.92	E	564	1.03	F
MTS	MLK	North of University	NB	550	887	1.61	F	929	1.69	F
			SB	550	776	1.41	F	826	1.50	F
MTS	MLK	North of Dwight	NB	1,100	948	0.86	D	1,087	0.99	E
			SB	1,100	1,576	1.43	F	1,658	1.51	F
MTS	MLK	North of Ashby	NB	1,100	1,121	1.02	F	1,250	1.14	F
			SB	1,100	1,471	1.34	F	1,564	1.42	F
MTS	MLK	South of Ashby	NB	1,600	1,076	0.67	B	1,220	0.76	C
			SB	1,600	1,616	1.01	F	1,779	1.11	F

TABLE F.3-2

PROJECTED YEAR 2010 AND 2025 LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project			2025 Without Project		
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS
MTS	Sacramento	North of Cedar	NB	1,600	1,025	0.64	B	1,073	0.67	B
			SB	1,600	820	0.51	A	873	0.55	A
MTS	Sacramento	North of Hearst	NB	1,600	1,695	1.06	F	1,843	1.15	F
			SB	1,600	1,559	0.97	E	1,656	1.04	F
MTS	Sacramento	North of University	NB	1,600	1,762	1.10	F	1,932	1.21	F
			SB	1,600	1,740	1.09	F	1,840	1.15	F
MTS	Sacramento	North of Dwight	NB	1,600	2,017	1.26	F	2,097	1.31	F
			SB	1,600	1,997	1.25	F	2,105	1.32	F
MTS	Sacramento	North of Ashby	NB	1,600	2,003	1.25	F	2,071	1.29	F
			SB	1,600	2,044	1.28	F	2,216	1.39	F
MTS	Sixth	South of University	NB	550	791	1.44	F	786	1.43	F
			SB	550	537	0.98	E	619	1.13	F
MTS	Seventh	North of Ashby	NB	550	622	1.13	F	626	1.14	F
			SB	550	721	1.31	F	751	1.37	F
MTS	Telegraph	South of Bancroft	NB	1,600	1,235	0.77	C	1,257	0.79	C
MTS	Telegraph	South of Dwight	NB	1,600	1,142	0.71	C	1,218	0.76	C
			SB	1,600	1,220	0.76	C	1,297	0.81	D
MTS	Telegraph	South of Ashby	NB	1,600	1,274	0.80	C	1,297	0.81	D
			SB	1,600	1,540	0.96	E	1,602	1.00	F
MTS	College	South of Bancroft	NB	550	63	0.11	A	63	0.11	A
			SB	550	86	0.16	A	99	0.18	A
MTS	College	South of Dwight	NB	550	516	0.94	E	564	1.03	F
			SB	550	848	1.54	F	915	1.66	F
MTS	College	South of Ashby	NB	550	511	0.93	E	528	0.96	E
			SB	550	666	1.21	F	790	1.29	F

TABLE F.3-2

PROJECTED YEAR 2010 AND 2025 LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project			2025 Without Project		
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS
MTS	Gilman	West of Sixth	EB	1,100	379	0.34	A	567	0.52	A
			WB	1,100	1,038	0.94	E	991	0.90	E
MTS	Gilman	East of Sixth	EB	550	552	1.00	F	727	1.32	F
			WB	550	638	1.16	F	769	1.40	F
MTS	Gilman	East of San Pablo	EB	550	465	0.85	D	508	0.92	E
			WB	550	477	0.87	D	475	0.86	D
MTS	Hopkins	West of Sacramento	EB	500	572	1.14	F	666	1.33	F
			WB	500	617	1.23	F	660	1.32	F
MTS	Hopkins	East of Sacramento	EB	500	457	0.91	E	499	1.00	E
			WB	500	323	0.65	B	359	0.72	C
MTS	Dwight	East of Sixth	EB	550	528	0.96	E	443	0.81	D
			WB	550	554	1.01	F	421	0.77	C
MTS	Dwight	East of San Pablo	EB	550	760	1.38	F	792	1.44	F
			WB	550	881	1.60	F	804	1.46	F
MTS	Dwight	East of Sacramento	EB	550	569	1.03	F	571	1.04	F
			WB	550	497	0.90	E	489	0.89	D
MTS	Dwight	East of MLK	EB	1,600	544	0.34	A	543	0.34	A
MTS	Dwight	East of Shattuck	EB	1,600	764	0.48	A	788	0.49	A
MTS	Dwight	East of Telegraph	EB	1,600	909	0.57	A	885	0.55	A
MTS	Bancroft	East of Shattuck	WB	1,600	530	0.33	A	518	0.32	A
MTS	Bancroft	West of Telegraph	WB	1,600	931	0.58	A	951	0.59	B
MTS	Bancroft	West of College	WB	1,600	124	0.08	A	130	.08	A

Notes:

[a] All CMP roadways are also part of MTS.

[b] Capacity based on peak hour directional link volumes in the Countywide Travel Demand Model.

[c] 2010 PM peak hour volume as estimated by the Countywide Travel Demand Model.

[d] 2025 PM peak hour volume as estimated by the Countywide Travel Demand Model.

Source: The Countywide Travel Demand Model updated by Fehr & Peers in January 2004.

TABLE F.3-3

2020 WITH PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE

| | Existing | | | | 2020 Without Project | | | | 2020 With Project | | | | |
| | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | | Impact |
Intersection	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Significant?
Signalized Intersections[a]													
1. Marin Avenue / San Pablo Avenue	**79**	**E**	50	D	>80	F	780	F	>80	F	>80	F	No
2. .Marin Avenue / The Alameda	13	B	15	B	15	B	22	C	15	B	22	C	No
3. Gilman Street / Sixth Street	11	B	**75**	**E**	16	B	>80	F	17	B	>80	F	No
4. Gilman Street / San Pablo Avenue	41	D	42	D	43	D	**62**	**E**	46	D	**69**	**E**	No
5. Shattuck Avenue / Rose Street	7	A	12	B	10	A	16	B	10	A	16	B	No
6. Cedar Street / MLK Way	17	B	25	C	31	C	47	D	33	C	51	D	No
7. Cedar Street / Shattuck Avenue	10	A	14	B	10	B	16	B	11	B	17	B	No
8. Cedar Street / Oxford Street	49	D	22	C	**58**	**E**	41	D	**58**	**E**	63	E	Yes TRA-6a
9. Cedar Street / Euclid Avenue	13	B	12	B	14	B	14	B	14	B	14	B	No
11. Hearst Avenue / Shattuck Avenue	6	A	15	B	8	A	22	C	8	A	23	C	No
12. Hearst Avenue / Oxford Street	10	B	54	D	12	B	52	D	12	B	49	D	No
16. Hearst Avenue / Euclid Avenue	15	B	20	B	18	B	17	B	18	B	17	B	No
18. Hearst Avenue / Gayley Road / La Loma Avenue	23	C	25	C	>57	E	>67	E	>60	E	>69	E	No
19. Berkeley Way / Oxford Street	5	A	7	A	7	A	10	A	7	A	10	A	No
20. University Avenue / Sixth Street	>80	F	>80	F	>80	F	>80	F	>80	F	>80	F	Yes TRA-8a

TABLE F.3-3
2020 WITH PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE

Intersection	Existing				2020 Without Project				2020 With Project				Impact Significant?
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	
21. University Avenue / San Pablo Avenue	>80	F	>80	F	>80	F	>80	F	>80	F	>80	F	Yes TRA-8b
22. University Avenue / MLK Way	21	C	32	C	30	C	41	D	40	D	41	D	No
23. University Avenue / Milvia Street	11	B	17	B	13	B	19	B	14	B	23	C	No
24. University Avenue / Shattuck Avenue (West)	20	B	18	B	22	C	18	B	37	D	22	C	No
25. University Avenue / Shattuck Avenue (East)	16	B	17	B	16	B	18	B	17	B	19	B	No
26. University Avenue / Oxford Street	29	C	18	B	29	C	23	C	39	D	29	C	No
29. Center Street / Shattuck Avenue (West)	15	B	14	B	16	B	17	B	17	B	17	B	No
30. Center Street / Shattuck Avenue (East)	5	A	8	A	5	A	10	A	5	A	10	A	No
31. Center Street / Oxford Street	8	A	8	A	12	B	10	B	13	B	11	B	No
36. Bancroft Way / Shattuck Avenue	9	A	13	B	10	A	17	B	11	B	22	C	No
37. Bancroft Way / Fulton Street	6	A	7	A	9	A	9	A	10	A	10	B	No
40. Bancroft Way / Telegraph Avenue	20	C	18	B	22	C	18	B	22	C	19	B	No
44. Durant Avenue / Shattuck Avenue	11	B	14	B	16	B	19	B	14	B	21	C	No
45. Durant Avenue / Fulton Street	7	A	7	A	10	A	10	A	11	B	10	A	No
46. Durant Avenue / Telegraph Avenue	11	B	13	B	11	B	13	B	12	B	13	B	No
47. Durant Avenue / College Avenue	9	A	13	B	13	B	14	B	14	B	14	B	No

TABLE F.3-3
2020 WITH PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE

Intersection	Existing				2020 Without Project				2020 With Project				Impact Significant?
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	
49. Channing Way / Shattuck Avenue	5	A	6	A	6	A	9	A	7	A	10	A	No
51. Channing Way / Telegraph Avenue	9	A	13	B	12	B	16	B	12	B	16	B	No
52. Channing Way / College Avenue	16	B	10	B	22	C	16	B	22	C	16	B	No
53. Haste Street / Shattuck Avenue	51	D	10	A	43	D	15	B	44	D	19	B	No
54. Haste Street / Fulton Street	14	B	19	B	15	B	23	C	15	B	23	C	No
55. Haste Street / Telegraph Avenue	16	B	13	B	17	B	14	B	17	B	14	B	No
56. Haste Street / College Avenue	8	A	9	A	11	B	11	B	11	B	11	B	No
57. Dwight Way / MLK Way	14	B	18	B	21	C	24	C	22	C	29	C	No
58. Dwight Way / Shattuck Avenue	10	B	13	B	14	B	16	B	17	B	17	B	No
59. Dwight Way / Fulton Street	11	B	14	B	14	B	17	B	14	B	17	B	No
60. Dwight Way / Telegraph Avenue	16	B	20	C	18	B	30	C	18	B	32	C	No
61. Dwight Way / College Avenue	10	B	15	B	12	B	14	B	12	B	15	B	No
62. Dwight Way / Piedmont Avenue	9	A	13	B	11	B	13	B	11	B	14	B	No
64. Adeline Street / Shattuck Avenue	15	B	24	C	17	B	32	C	20	C	33	C	No
66. Derby Street / Claremont Boulevard	13	B	16	B	19	B	23	C	30	C	34	C	No
67. Ashby Avenue / Seventh Street	34	C	52	D	54	D	>80	F	54	D	>80	F	No

TABLE F.3-3
2020 WITH PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE

| | Existing | | | | 2020 Without Project | | | | 2020 With Project | | | | |
| | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | | Impact |
Intersection	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Significant?
68. Ashby Avenue / San Pablo Avenue	29	C	31	C	36	D	46	D	42	D	41	D	No
69. Ashby Avenue / Adeline Street	40	D	37	D	42	D	39	D	42	D	39	D	No
70. Ashby Avenue / Shattuck Avenue	15	B	30	C	16	B	37	D	17	B	43	D	No
71. Ashby Avenue / Telegraph Avenue	26	C	26	C	26	C	27	C	27	C	27	C	No
72. Ashby Avenue / College Avenue	31	C	29	C	36	D	37	D	36	D	39	D	No
73. Ashby Avenue / Claremont Avenue	22	C	22	B	24	C	25	C	27	C	27	C	No
74. Tunnel Road / Highway 13	16	B	14	B	16	B	15	B	17	B	16	B	No
All-Way Stop-Controlled Intersections[b]													
10. Grizzly Peak Blvd / Centennial Drive / Golf Course Drive	8	B	18	C	11	B	23	C	11	B	25	D	No
32. Stadium Rim Road / Gayley Road	26	D	35	D	>50	F	>50	F	>50	F	>50	F	No
35. Stadium Rim Road / Centennial Drive	9	A	12	B	10	A	12	B	10	A	13	B	No
41. Bancroft Way / Bowditch Street	12	B	12	B	12	B	13	B	14	B	16	C	No
42. Bancroft Way / College Avenue	8	B	12	B	11	B	14	B	17	C	15	C	No
43.Bancroft Way / Piedmont Avenue[c]	>50	F	>50	F	>50	F	>50	F	>50	F	>50	F	Yes TRA-7
48. Durant Avenue / Piedmont Avenue	17	C	18	C	>26	D	27	D	>50	F	34	D	Yes TRA-6b
50. Channing Way / Fulton Street	12	B	18	C	15	B	27	D	15	B	28	D	No

TABLE F.3-3

2020 WITH PROJECT CONDITIONS STUDY INTERSECTION LEVELS OF SERVICE

Intersection	Existing				2020 Without Project				2020 With Project				Impact Significant?
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	
65. Derby Street / Warring Street	>50	F	>50	F	>50	F	>50	F	>50	F	>50	F	Yes TRA-6c
Side-Street Stop-Controlled Intersections[d]													
13. Hearst Avenue / Spruce Street	12 (SB)	B	16 (SB)	C	13 (SB)	B	20 (SB)	C	13 (SB)	B	20 (SB)	C	No
14. Hearst Avenue / Arch Street / Le Conte Avenue	11 (SB)	B	14 (SB)	B	11 (SB)	B	18 (SB)	C	11 (SB)	B	18 (SB)	C	No
15. Hearst Avenue / Scenic Avenue	11 (SB)	B	12 (SB)	B	10 (SB)	A	13 (SB)	B	10 (SB)	B	13 (SB)	B	No
17. Hearst Avenue / Le Roy Avenue	12 (SB)	B	15 (SB)	C	13 (SB)	B	19 (SB)	C	14 (SB)	B	19 (SB)	C	No
27. East Gate / Gayley Road	22 (EB)	C	20 (EB)	C	>35 (EB)	E	27 (EB)	D	>35 (EB)	E	22 (EB)	C	No
28. Addison Street / Oxford Street	10 (EB)	A	17 (EB)	C	11 (EB)	B	18 (EB)	C	**35 (EB)**	E	**>45 (EB)**	E	Yes TRA-6d
33. Allston Way / Oxford Street	32 (EB)	D	30 (EB)	D	33 (EB)	D	**36 (EB)**	E	**49 (EB)**	E	**45 (EB)**	E	Yes TRA-6e
34. Kittredge Street / Oxford Street	20 (EB)	C	**>50 (EB)**	F	23 (EB)	C	**>50 (EB)**	F	**>50 (EB)**	F	**>50 (EB)**	F	Yes TRA-6f
38. Bancroft Way / Ellsworth Street	16 (NB)	C	13 (NB)	B	17 (NB)	C	28 (NB)	D	22 (NB)	C	**39 (NB)**	E	Yes TRA-6g
39. Bancroft Way / Dana Street	0	A	0	A	0	A	0	A	0	A	0	A	No
63. Dwight Way / Prospect Street	10 (SB)	B	12 (SB)	B	10 (SB)	B	12 (SB)	B	10 (SB)	B	12 (SB)	B	No

Notes:

Bold – Indicates an intersection operated at unacceptable LOS E or F.

[a] Signalized intersection level of service based on average control delay per vehicle, according to the *Highway Capacity Manual, Special Report 209*, Transportation Research Board, 2000.

[b] All-way stop-controlled intersection level of service based on average control delay per vehicle, according to the *Highway Capacity Manual, Special Report 209*, Transportation Research Board, 2000.

[c] Based on 2000 HCM methodology, the intersection operates at LOS D during the AM peak hour and LOS C during the PM peak hour under Existing Conditions and LOS D under both AM and PM peak hours under 2020 No Project Conditions. However, this does not take into account pedestrian volumes. Based on field observations, this intersection has a heavy pedestrian volume, resulting in major delays for vehicles under existing conditions. With the additional traffic at the intersection under 2020 no Project and 2020 with Project conditions, the intersection is estimated to continue operating at LOS F.

[d] Side-street stop-controlled intersection level of service based on worst approach control delay, according to the *Highway Capacity Manual, Special Report 209*, Transportation Research Board, 2000.

Source: Fehr & Peers Associates, January 2003.

TABLE F.3-4

PROJECTED YEAR 2010 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project Volume[c]	V/C	LOS	2010 With Project Volume[d]	V/C	LOS	Percent Traffic Added[e]
CMP	I-80	North of Gilman	EB	7,200	10,001	1.39	F	10,088	1.40	F	1%
			WB	7,200	8,900	1.24	F	8,912	1.24	F	0%
CMP	I-80	North of University	EB	6,400	9,430	1.46	F	9,418	1.47	F	1%
			WB	6,400	8,270	1.29	F	8,281	1.29	F	0%
CMP	I-80	North of Ashby	EB	6,400	9,152	1.43	F	9,168	1.43	F	0%
			WB	6,400	8,159	1.27	F	8,240	1.29	F	1%
CMP	I-80	South of Ashby	EB	6,400	9,888	1.55	F	9,907	1.55	F	0%
			WB	6,400	9,516	1.49	F	9,642	1.51	F	1%
CMP	I-580	West of SR 24	EB	8,000	9,779	1.22	F	9,797	1.22	F	0%
			WB	8,000	7,907	0.99	E	7,910	0.99	E	0%
CMP	I-580	East of SR 24	EB	7,200	9,339	1.30	F	9,350	1.30	F	0%
			WB	7,200	5,633	0.78	C	5,635	0.78	C	0%
CMP	SR 24	East of SR 13	EB	6,600	9,937	1.51	F	9,948	1.51	F	0%
			WB	6,600	6,172	0.94	E	6,188	0.94	E	0%
CMP	SR 24	East of Broadway	EB	6,600	8,463	1.28	F	8,463	1.28	F	0%
			WB	6,600	4,444	0.67	B	4,444	0.67	B	0%
CMP	SR 24	East of Telegraph	EB	6,600	7,860	1.19	F	7,860	1.19	F	0%
			WB	6,600	4,041	0.61	B	4,041	0.61	B	0%
CMP	SR 24	West of Telegraph	EB	6,600	7,757	1.18	F	7,759	1.18	F	0%
			WB	6,600	4,847	0.73	C	4,857	0.74	C	0%
CMP	SR 13	South of SR 24	NB	3,300	4,036	1.22	F	4,047	1.23	F	0%
			SB	3,300	4,691	1.42	F	4,767	1.44	F	2%
CMP	**SR 13**	**East of Claremont**	**EB**	**650**	**1,213**	**1.87**	**F**	**1,374**	**2.11**	**F**	**13%**
			WB	650	900	1.38	F	925	1.42	F	3%
CMP	**SR 13 (Ashby)**	**East of College**	**EB**	**650**	**881**	**1.36**	**F**	**931**	**1.43**	**F**	**6%**
			WB	650	535	0.82	D	544	0.84	D	2%

TABLE F.3-4
PROJECTED YEAR 2010 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project Volume[c]	V/C	LOS	2010 With Project Volume[d]	V/C	LOS	Percent Traffic Added[e]
CMP	SR 13 (Ashby)	East of Telegraph	EB	650	644	0.99	F	670	1.03	F	4%
			WB	650	366	0.56	A	369	0.57	A	1%
CMP	SR 13 (Ashby)	East of Shattuck	EB	650	761	1.17	F	788	1.21	F	4%
			WB	650	601	0.92	E	605	0.93	E	1%
CMP	**SR 13 (Ashby)**	**East of MLK**	EB	650	862	1.33	F	887	1.36	F	3%
			WB	**650**	**756**	**1.16**	**F**	**824**	**1.27**	**F**	**9%**
CMP	SR 13 (Ashby)	East of Sacramento	EB	650	836	1.29	F	869	1.34	F	4%
			WB	650	545	0.84	D	627	0.96	E	15%
CMP	**SR 13 (Ashby)**	**East of San Pablo**	EB	650	1,290	1.98	F	1,323	2.04	F	3%
			WB	**650**	**710**	**1.09**	**F**	**792**	**1.22**	**F**	**12%**
CMP	SR 13 (Ashby)	East of Seventh	EB	1,300	1,280	0.98	E	1,288	0.99	E	1%
			WB	1,300	1,018	0.78	C	1,069	0.82	D	5%
CMP	SR 13 (Ashby)	West of Seventh	EB	1,300	1,183	0.91	E	1,191	0.92	E	1%
			WB	1,300	1,320	1.02	F	1,371	1.05	F	4%
CMP	University	East of MLK	EB	1,600	793	0.50	A	833	0.52	A	5%
			WB	1,600	1,118	0.70	B	1,403	0.88	D	25%
CMP	**University**	**East of Sacramento**	EB	1,600	1,158	0.72	C	1,198	0.75	C	3%
			WB	**1,600**	**1,552**	**0.97**	**E**	**1,834**	**1.15**	**F**	**18%**
CMP	**University**	**East of San Pablo**	EB	1,600	1,162	0.73	C	1,203	0.75	C	4%
			WB	**1,600**	**1,647**	**1.03**	**F**	**1,931**	**1.21**	**F**	**17%**
CMP	**University**	**East of Sixth**	EB	1,600	832	0.51	A	855	0.53	A	4%
			WB	**1,600**	**1,552**	**0.97**	**E**	**1,775**	**1.11**	**F**	**14%**
CMP	**University**	**West of Sixth**	EB	1,600	890	0.56	A	921	0.58	A	3%
			WB	**1,600**	**1,650**	**1.03**	**F**	**1,868**	**1.22**	**F**	**13%**
CMP	San Pablo	North of Marin	NB	1,600	1,035	0.65	B	1,131	0.71	C	9%
			SB	1,600	494	0.31	A	509	0.32	A	3%

TABLE F.3-4

PROJECTED YEAR 2010 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project Volume[c]	V/C	LOS	2010 With Project Volume[d]	V/C	LOS	Percent Traffic Added[e]
CMP	**San Pablo**	**North of Gilman**	**NB**	**1,600**	**1,521**	**0.95**	**E**	**1,620**	**1.01**	**F**	**7%**
			SB	1,600	1,347	0.84	D	1,363	0.85	D	1%
CMP	San Pablo	North of Cedar	NB	1,600	2,078	1.30	F	2,177	1.36	F	5%
			SB	1,600	1,856	1.16	F	1,871	1.17	F	1%
CMP	San Pablo	North of University	NB	1,600	2,212	1.39	F	2,292	1.43	F	3%
			SB	1,600	2,179	1.36	F	2,191	1.37	F	1%
CMP	San Pablo	North of Dwight	NB	1,600	2,128	1.33	F	2,149	1.34	F	1%
			SB	1,600	2,058	1.29	F	2,067	1.29	F	0%
CMP	San Pablo	North of Ashby	NB	1,600	1,969	1.23	F	1,994	1.25	F	1%
			SB	1,600	2,381	1.49	F	2,394	1.50	F	1%
CMP	San Pablo	South of Ashby	NB	1,600	1,523	0.95	E	1,588	0.99	E	4%
			SB	1,600	1,617	1.01	F	1,677	1.05	F	4%
CMP	Shattuck	South of University	NB	1,600	1,237	0.77	C	1,375	0.86	D	11%
			SB	1,600	821	0.51	A	879	0.55	A	7%
CMP	**Shattuck**	**South of Dwight**	NB	1,600	1,738	1.09	F	1,763	1.10	F	1%
			SB	**1,600**	**2,216**	**1.39**	**F**	**2,359**	**1.47**	**F**	**6%**
CMP	Adeline	North of Ashby	NB	2,400	1,321	0.55	A	1,324	0.55	A	0%
			SB	2,400	2,032	0.85	D	2,048	0.92	E	1%
CMP	Adeline	South of Ashby	NB	2,400	1,359	0.57	A	1,361	0.57	A	0%
			SB	2,400	2,089	0.87	D	2,099	0.87	D	0%
CMP	MLK	South of Adeline	NB	2,400	1,539	0.64	B	1,555	0.65	B	1%
			SB	2,400	2,546	1.06	F	2,638	1.10	F	4%
MTS	Solano Ave	East of San Pablo	EB	550	364	0.66	B	366	0.67	B	1%
			WB	550	315	0.57	A	326	0.59	A	3%
MTS	Solano Ave	East of Colusa	EB	550	599	1.09	F	601	1.09	F	0%
			WB	550	590	1.07	F	601	1.09	F	2%

TABLE F.3-4
PROJECTED YEAR 2010 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project			2010 With Project			Percent Traffic
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS	Added[e]
MTS	Sutter	East of the Alameda	EB	550	638	1.16	F	640	1.16	F	0%
			WB	550	478	0.87	D	489	0.89	D	2%
MTS	Henry	North of Rose	NB	550	1,141	2.07	F	1,152	2.09	F	1%
			SB	550	1,015	1.85	F	1,017	1.85	F	0%
MTS	Shattuck	North of Cedar	NB	1,600	1,673	1.05	F	1,680	1.05	F	0%
			SB	1,600	1,245	0.78	C	1,246	0.78	C	0%
MTS	Shattuck	North of Hearst	NB	1,600	1,798	1.12	F	1,804	1.13	F	0%
			SB	1,600	1,361	0.85	D	1,363	0.85	D	0%
MTS	**Shattuck**	**North of University**	NB	1,600	1,902	1.19	F	1,914	1.20	F	1%
			SB	**1,600**	**1,507**	**.94**	**E**	**1,595**	**1.00**	**E**	**6%**
MTS	The Alameda	South of Solano	NB	1,100	434	0.39	A	434	0.39	A	0%
			SB	1,100	285	0.26	A	285	0.26	A	0%
MTS	The Alameda	South of Marin	NB	1,100	1,369	1.24	F	1,382	1.26	F	1%
			SB	1,100	932	0.84	D	929	0.84	D	0%
MTS	MLK	North of Cedar	NB	550	554	1.01	F	564	1.03	F	2%
			SB	550	303	0.55	A	305	0.55	A	1%
MTS	MLK	North of Hearst	NB	550	582	1.06	F	598	1.09	F	3%
			SB	550	505	0.92	E	508	0.92	E	1%
MTS	MLK	North of University	NB	550	887	1.61	F	900	1.64	F	1%
			SB	550	776	1.41	F	780	1.42	F	1%
MTS	MLK	North of Dwight	NB	1,100	948	0.86	D	961	0.87	D	1%
			SB	1,100	1,576	1.43	F	1,618	1.47	F	3%
MTS	MLK	North of Ashby	NB	1,100	1,121	1.02	F	1,126	1.02	F	0%
			SB	1,100	1,471	1.34	F	1,490	1.35	F	1%
MTS	MLK	South of Ashby	NB	1,600	1,076	0.67	B	1,078	0.67	B	0%
			SB	1,600	1,616	1.01	F	1,626	1.02	F	1%

TABLE F.3-4

PROJECTED YEAR 2010 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project			2010 With Project			Percent Traffic
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS	Added[e]
MTS	Sacramento	North of Cedar	NB	1,600	1,025	0.64	B	1,025	0.64	B	0%
			SB	1,600	820	0.51	A	820	0.51	A	0%
MTS	Sacramento	North of Hearst	NB	1,600	1,695	1.06	F	1,695	1.06	F	0%
			SB	1,600	1,559	0.97	E	1,559	0.97	E	0%
MTS	Sacramento	North of University	NB	1,600	1,762	1.10	F	1,762	1.10	F	0%
			SB	1,600	1,740	1.09	F	1,740	1.09	F	0%
MTS	Sacramento	North of Dwight	NB	1,600	2,017	1.26	F	2,017	1.26	F	0%
			SB	1,600	1,997	1.25	F	1,997	1.25	F	0%
MTS	Sacramento	North of Ashby	NB	1,600	2,003	1.25	F	2,003	1.25	F	0%
			SB	1,600	2,044	1.28	F	2,044	1.28	F	0%
MTS	Sixth	South of University	NB	550	791	1.44	F	796	1.45	F	1%
			SB	550	537	0.98	E	558	1.01	F	4%
MTS	Seventh	North of Ashby	NB	550	622	1.13	F	622	1.13	F	0%
			SB	550	721	1.31	F	721	1.31	F	0%
MTS	Telegraph	South of Bancroft	NB	1,600	1,235	0.77	C	1,238	0.77	C	0%
MTS	Telegraph	South of Dwight	NB	1,600	1,142	0.71	C	1,146	0.72	C	0%
			SB	1,600	1,220	0.76	C	1,247	0.78	C	2%
MTS	Telegraph	South of Ashby	NB	1,600	1,274	0.80	C	1,279	0.80	C	0%
			SB	1,600	1,540	0.96	E	1,568	0.98	E	2%
MTS	College	South of Bancroft	NB	550	63	0.11	A	83	0.15	A	32%
			SB	550	86	0.16	A	89	0.16	A	2%
MTS	College	South of Dwight	NB	550	516	0.94	E	519	0.94	E	1%
			SB	550	848	1.54	F	871	1.58	F	3%
MTS	College	South of Ashby	NB	550	511	0.93	E	511	0.93	E	0%
			SB	550	666	1.21	F	666	1.21	F	0%

TABLE F.3-4
PROJECTED YEAR 2010 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2010 Without Project			2010 With Project			Percent Traffic
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS	Added[e]
MTS	Gilman	West of Sixth	EB	1,100	379	0.34	A	381	0.35	A	1%
			WB	1,100	1,038	0.94	E	1,048	0.95	E	1%
MTS	Gilman	East of Sixth	EB	550	552	1.00	F	552	1.00	F	0%
			WB	550	638	1.16	F	639	1.16	F	0%
MTS	Gilman	East of San Pablo	EB	550	465	0.85	D	465	0.85	D	0%
			WB	550	477	0.87	D	478	0.87	D	0%
MTS	Hopkins	West of Sacramento	EB	500	572	1.14	F	573	1.15	F	0%
			WB	500	617	1.23	F	620	1.24	F	0%
MTS	Hopkins	East of Sacramento	EB	500	457	0.91	E	458	0.92	E	0%
			WB	500	323	0.65	B	326	0.65	B	1%
MTS	**Dwight**	**East of Sixth**	EB	550	528	0.96	E	536	0.97	E	2%
			WB	**550**	**554**	**1.01**	**F**	**606**	**1.10**	**F**	**9%**
MTS	**Dwight**	**East of San Pablo**	EB	550	760	1.38	F	767	1.39	F	1%
			WB	**550**	**881**	**1.60**	**F**	**932**	**1.69**	**F**	**6%**
MTS	**Dwight**	**East of Sacramento**	EB	550	569	1.03	F	578	1.05	F	2%
			WB	**550**	**497**	**0.90**	**E**	**552**	**1.00**	**F**	**11%**
MTS	Dwight	East of MLK	EB	1,600	544	0.34	A	549	0.34	A	1%
MTS	Dwight	East of Shattuck	EB	1,600	764	0.48	A	770	0.48	A	1%
MTS	Dwight	East of Telegraph	EB	1,600	909	0.57	A	927	0.58	A	2%
MTS	Bancroft	East of Shattuck	WB	1,600	530	0.33	A	705	0.44	A	33%
MTS	Bancroft	West of Telegraph	WB	1,600	931	0.58	A	1,086	0.68	B	17%
MTS	Bancroft	West of College	WB	1,600	124	0.08	A	181	0.11	A	46%

Note:

Bold – Indicates segment with significant impact..

[a] All CMP roadways are also part of MTS.

[b] Capacity based on peak hour directional link volumes in the Countywide Travel Demand Model.

[c] 2010 PM peak hour volume as estimated by the Countywide Travel Demand Model.

[d] Estimated project trips added to 2010 PM peak hour trips.

[e] Percent increase in traffic caused by the project (i.e. project only traffic divided by without project traffic.

Source: The Countywide Travel Demand Model updated by Fehr & Peers in January 2004.

TABLE F.3-5

PROJECTED YEAR 2025 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2025 Without Project Volume[c]	V/C	LOS	2025 With Project Volume[d]	V/C	LOS	Percent Traffic Added[e]
CMP	I-80	North of Gilman	EB	7,200	10,201	1.42	F	10,288	1.43	F	1%
			WB	7,200	9,720	1.35	F	9,732	1.35	F	0%
CMP	I-80	North of University	EB	6,400	9,274	1.45	F	9,352	1.46	F	1%
			WB	6,400	8,261	1.29	F	8,272	1.29	F	0%
CMP	I-80	North of Ashby	EB	6,400	9,078	1.42	F	9,094	1.46	F	0%
			WB	6,400	8,285	1.29	F	8,366	1.31	F	1%
CMP	I-80	South of Ashby	EB	6,400	10,449	1.64	F	10,518	1.64	F	0%
			WB	6,400	9,119	1.42	F	9,245	1.44	F	1%
CMP	I-580	West of SR 24	EB	8,000	10,016	1.25	F	10,034	1.25	F	0%
			WB	8,000	8,410	1.05	F	8,413	1.05	F	0%
CMP	I-580	East of SR 24	EB	7,200	9,513	1.32	F	9,524	1.32	F	0%
			WB	7,200	6,011	0.83	D	6,013	0.84	D	0%
CMP	SR 24	East of SR 13	EB	6,600	10,294	1.56	F	10,305	1.56	F	0%
			WB	6,600	6,513	0.99	E	6,529	0.99	E	0%
CMP	SR 24	East of Broadway	EB	6,600	8,695	1.32	F	8,695	1.32	F	0%
			WB	6,600	4,707	0.71	C	4,707	0.71	C	0%
CMP	SR 24	East of Telegraph	EB	6,600	8,215	1.24	F	8,215	1.24	F	0%
			WB	6,600	4,332	0.66	B	4,332	0.66	B	0%
CMP	SR 24	West of Telegraph	EB	6,600	8,127	1.23	F	8,129	1.23	F	0%
			WB	6,600	5,126	0.78	C	5,136	0.78	C	0%
CMP	SR 13	South of SR 24	NB	3,300	4,208	1.28	F	4,219	1.28	F	0%
			SB	3,300	4,649	1.41	F	4,725	1.43	F	2%
CMP	**SR 13**	**East of Claremont**	**EB**	**650**	**1,246**	**1.92**	**F**	**1,407**	**2.16**	**F**	**13%**
			WB	650	873	1.34	F	898	1.38	F	3%

TABLE F.3-5

PROJECTED YEAR 2025 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2025 Without Project			2025 With Project			Percent Traffic Added[e]
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS	
CMP	**SR 13 (Ashby)**	**East of College**	**EB**	**650**	956	1.47	F	1,006	1.55	F	5%
			WB	650	547	0.84	D	556	0.86	D	2%
CMP	SR 13 (Ashby)	East of Telegraph	EB	650	697	1.07	F	723	1.11	F	4%
			WB	650	379	0.58	A	382	0.59	A	1%
CMP	SR 13 (Ashby)	East of Shattuck	EB	650	869	1.34	F	896	1.38	F	3%
			WB	650	694	1.07	F	698	1.07	F	1%
CMP	**SR 13 (Ashby)**	**East of MLK**	EB	650	942	1.45	F	967	1.49	F	3%
			WB	**650**	**739**	**1.14**	**F**	**807**	**1.24**	**F**	**9%**
CMP	**SR 13 (Ashby)**	**East of Sacramento**	EB	650	984	1.51	F	1,017	1.56	F	3%
			WB	**650**	**538**	**0.83**	**D**	**620**	**0.95**	**E**	**15%**
CMP	**SR 13 (Ashby)**	**East of San Pablo**	EB	650	1,291	1.99	F	1,324	2.04	F	3%
			WB	**650**	**577**	**.89**	**E**	**659**	**1.01**	**F**	**14%**
CMP	SR 13 (Ashby)	East of Seventh	EB	1,300	1,299	1.00	F	1,307	1.01	F	1%
			WB	1,300	633	0.49	A	684	0.53	A	8%
CMP	SR 13 (Ashby)	West of Seventh	EB	1,300	900	0.69	B	908	0.70	B	1%
			WB	1,300	488	0.38	A	539	0.41	A	10%
CMP	University	East of MLK	EB	1,600	865	0.54	A	905	0.57	A	5%
			WB	1,600	1,086	0.68	C	1,371	0.86	D	26%
CMP	**University**	**East of Sacramento**	EB	1,600	1,213	0.76	C	1,253	0.78	C	3%
			WB	**1,600**	**1,481**	**.93**	**E**	**1763**	**1.10**	**F**	**19%**
CMP	**University**	**East of San Pablo**	EB	1,600	1,282	0.80	D	1,323	0.78	D	3%
			WB	**1,600**	**1,517**	**.95**	**E**	**1,801**	**1.13**	**F**	**19%**
CMP	**University**	**East of Sixth**	EB	1,600	1,013	0.63	B	1,045	0.65	B	3%
			WB	**1,600**	**1,499**	**0.94**	**E**	**1,722**	**1.08**	**F**	**15%**

TABLE F.3-5

PROJECTED YEAR 2025 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2025 Without Project			2025 With Project			Percent Traffic Added[e]
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS	
CMP	**University**	**West of Sixth**	EB	1,600	1056	0.66	B	1,087	0.68	B	3%
			WB	**1,600**	**1,695**	**1.06**	**F**	**1,913**	**1.20**	**F**	**13%**
CMP	San Pablo	North of Marin	NB	1,600	1,089	0.68	C	1,185	0.74	C	9%
			SB	1,600	668	0.42	A	683	0.43	A	2%
CMP	**San Pablo**	**North of Gilman**	**NB**	**1,600**	**1,605**	**1.00**	**F**	**1,704**	**1.07**	**F**	**6%**
			SB	1,600	1,464	0.92	E	1,480	0.93	E	1%
CMP	San Pablo	North of Cedar	NB	1,600	2,240	1.40	F	2,339	1.46	F	4%
			SB	1,600	2,021	1.26	F	2,036	1.27	F	1%
CMP	San Pablo	North of University	NB	1,600	2,351	1.47	F	2,426	1.52	F	3%
			SB	1,600	2,303	1.44	F	2,315	1.45	F	1%
CMP	San Pablo	North of Dwight	NB	1,600	2,205	1.38	F	2,226	1.39	F	1%
			SB	1,600	2,133	1.33	F	2,142	1.34	F	0%
CMP	San Pablo	North of Ashby	NB	1,600	2,032	1.27	F	2,057	1.29	F	1%
			SB	1,600	2,374	1.48	F	2,387	1.49	F	1%
CMP	San Pablo	South of Ashby	NB	1,600	1,645	1.03	F	1,710	1.07	F	4%
			SB	1,600	1,939	1.21	F	1,999	1.25	F	3%
CMP	Shattuck	South of University	NB	1,600	1,304	0.82	D	1,442	0.90	E	11%
			SB	1,600	1,041	0.65	B	1,099	0.69	B	6%
CMP	**Shattuck**	**South of Dwight**	NB	1,600	1,887	1.17	F	1,903	1.19	F	1%
			SB	**1,600**	**2,295**	**1.43**	**F**	**2,438**	**1.52**	**F**	**6%**
CMP	Adeline	North of Ashby	NB	2,400	1,496	0.62	B	1,499	0.62	B	0%
			SB	2,400	2,116	0.88	D	2,132	0.89	D	1%
CMP	Adeline	South of Ashby	NB	2,400	1,587	0.66	B	1,591	0.66	B	0%
			SB	2,400	2,208	0.92	E	2,218	0.92	E	0%

TABLE F.3-5

PROJECTED YEAR 2025 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2025 Without Project			2025 With Project			Percent Traffic Added[e]
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS	
CMP	MLK	South of Adeline	NB	2,400	1,746	0.73	C	1,762	0.73	C	1%
			SB	2,400	2,694	1.12	F	2,786	1.16	F	3%
MTS	Solano Ave	East of San Pablo	EB	550	444	0.81	D	446	0.81	D	0%
			WB	550	344	0.63	B	355	0.65	B	3%
MTS	Solano Ave	East of Colusa	EB	550	676	1.23	F	678	1.23	F	0%
			WB	550	649	1.18	F	660	1.20	F	2%
MTS	Sutter	East of the Alameda	EB	550	710	1.29	F	712	1.29	F	0%
			WB	550	515	0.94	E	526	0.96	E	2%
MTS	Henry	North of Rose	NB	550	1,248	2.27	F	1,259	2.29	F	1%
			SB	550	1,059	1.93	F	1,061	1.93	F	0%
MTS	Shattuck	North of Cedar	NB	1,600	1,885	1.18	F	1,892	1.18	F	0%
			SB	1,600	1,370	0.86	D	1,371	0.86	D	0%
MTS	Shattuck	North of Hearst	NB	1,600	2,049	1.28	F	2,055	1.28	F	0%
			SB	1,600	1,550	.97	E	1,552	.97	E	0%
MTS	**Shattuck**	**North of University**	NB	1,600	2,100	1.32	F	2,112	1.32	F	1%
			SB	**1,600**	**1,723**	**1.08**	**F**	**1,811**	**1.13**	**F**	**5%**
MTS	The Alameda	South of Solano	NB	1,100	474	0.43	A	474	0.43	A	0%
			SB	1,100	310	0.28	A	310	0.28	A	0%
MTS	The Alameda	South of Marin	NB	1,100	1,438	1.31	F	1,451	1.32	F	1%
			SB	1,100	1,037	0.94	E	1,039	0.94	E	0%
MTS	MLK	North of Cedar	NB	550	607	1.10	F	617	1.12	F	2%
			SB	550	379	0.69	B	381	0.69	B	1%
MTS	MLK	North of Hearst	NB	550	634	1.15	F	650	1.18	F	3%
			SB	550	564	1.03	F	567	1.03	F	1%

TABLE F.3-5

PROJECTED YEAR 2025 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2025 Without Project Volume[c]	V/C	LOS	2025 With Project Volume[d]	V/C	LOS	Percent Traffic Added[e]
MTS	MLK	North of University	NB	550	929	1.69	F	942	1.71	F	1%
			SB	550	826	1.50	F	830	1.51	F	0%
MTS	MLK	North of Dwight	NB	1,100	1,087	0.99	E	1,100	1.00	F	1%
			SB	1,100	1,658	1.51	F	1,700	1.55	F	3%
MTS	MLK	North of Ashby	NB	1,100	1,250	1.14	F	1,255	1.14	F	0%
			SB	1,100	1,564	1.42	F	1,583	1.44	F	1%
MTS	MLK	South of Ashby	NB	1,600	1,220	0.76	C	1,222	0.76	C	0%
			SB	1,600	1,779	1.11	F	1,789	1.12	F	1%
MTS	Sacramento	North of Cedar	NB	1,600	1,073	0.67	B	1,073	0.67	B	0%
			SB	1,600	873	0.55	A	873	0.55	A	0%
MTS	Sacramento	North of Hearst	NB	1,600	1,843	1.15	F	1,843	1.15	F	0%
			SB	1,600	1,656	1.04	F	1,656	1.04	F	0%
MTS	Sacramento	North of University	NB	1,600	1,932	1.21	F	1,932	1.21	F	0%
			SB	1,600	1,840	1.15	F	1,840	1.15	F	0%
MTS	Sacramento	North of Dwight	NB	1,600	2,097	1.31	F	2,097	1.31	F	0%
			SB	1,600	2,105	1.32	F	2,105	1.32	F	0%
MTS	Sacramento	North of Ashby	NB	1,600	2,071	1.29	F	2,071	1.29	F	0%
			SB	1,600	2,216	1.39	F	2,216	1.39	F	0%
MTS	Sixth	South of University	NB	550	786	1.43	F	791	1.44	F	1%
			SB	550	619	1.13	F	640	1.16	F	3%
MTS	Seventh	North of Ashby	NB	550	626	1.14	F	626	1.14	F	0%
			SB	550	751	1.37	F	751	1.37	F	0%
MTS	Telegraph	South of Bancroft	NB	1,600	1,257	0.79	C	1,260	0.79	C	0%
MTS	Telegraph	South of Dwight	NB	1,600	1,218	0.76	C	1,222	0.76	C	0%
			SB	1,600	1,297	0.81	D	1,324	0.83	D	2%

TABLE F.3-5

PROJECTED YEAR 2025 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2025 Without Project Volume[c]	V/C	LOS	2025 With Project Volume[d]	V/C	LOS	Percent Traffic Added[e]
MTS	Telegraph	South of Ashby	NB	1,600	1,297	0.81	D	1,302	0.81	D	0%
			SB	1,600	1,602	1.00	F	1,630	1.02	F	2%
MTS	College	South of Bancroft	NB	550	63	0.11	A	83	0.15	A	32%
			SB	550	99	0.18	A	102	0.19	A	3%
MTS	College	South of Dwight	NB	550	564	1.03	F	567	1.03	F	1%
			SB	550	915	1.66	F	938	1.71	F	3%
MTS	College	South of Ashby	NB	550	528	0.96	E	528	0.96	E	0%
			SB	550	790	1.29	F	709	1.29	F	0%
MTS	Gilman	West of Sixth	EB	1,100	567	0.52	A	569	0.52	A	0%
			WB	1,100	991	0.90	E	1,001	0.91	E	1%
MTS	Gilman	East of Sixth	EB	550	727	1.32	F	727	1.32	F	0%
			WB	550	769	1.40	F	770	1.40	F	0%
MTS	Gilman	East of San Pablo	EB	550	508	0.92	E	508	0.92	E	0%
			WB	550	475	0.86	D	476	0.87	D	0%
MTS	Hopkins	West of Sacramento	EB	500	666	1.33	F	667	1.33	F	0%
			WB	500	660	1.32	F	663	1.33	F	0%
MTS	Hopkins	East of Sacramento	EB	500	499	1.00	E	500	1.00	F	0%
			WB	500	359	0.72	C	362	0.72	C	1%
MTS	**Dwight**	**East of Sixth**	EB	550	443	0.81	D	451	0.82	D	2%
			WB	**550**	**421**	**0.77**	**C**	**473**	**0.86**	**D**	**12%**
MTS	**Dwight**	**East of San Pablo**	EB	550	792	1.44	F	799	1.45	F	1%
			WB	**550**	**804**	**1.46**	**F**	**855**	**1.55**	**F**	**6%**
MTS	Dwight	East of Sacramento	EB	550	571	1.04	F	580	1.05	F	2%
			WB	550	489	0.89	D	544	0.99	E	11%
MTS	Dwight	East of MLK	EB	1,600	543	0.34	A	548	0.34	A	1%

TABLE F.3-5

PROJECTED YEAR 2025 WITH PROJECT LEVEL OF SERVICE SUMMARY: CMP & MTS DESIGNATED SYSTEMS

System[a]	Roadway	Segment	Direction	Capacity[b]	2025 Without Project			2025 With Project			Percent Traffic Added[e]
					Volume[c]	V/C	LOS	Volume[d]	V/C	LOS	
MTS	Dwight	East of Shattuck	EB	1,600	788	0.49	A	794	0.50	A	1%
MTS	Dwight	East of Telegraph	EB	1,600	885	0.55	A	903	0.56	A	2%
MTS	Bancroft	East of Shattuck	WB	1,600	518	0.32	A	693	0.43	A	34%
MTS	Bancroft	West of Telegraph	WB	1,600	951	0.59	B	1,106	0.69	B	16%
MTS	Bancroft	West of College	WB	1,600	130	0.08	A	187	0.12	A	44%

Notes:

Bold – Indicates segment with significant impact.

a   All CMP roadways are also part of MTS.
b   Capacity based on peak hour directional link volumes in the Countywide Travel Demand Model.
c   2025 PM peak hour volume as estimated by the Countywide Travel Demand Model.
d   Estimated project trips added to 2025 PM peak hour trips.
e   Percent increase in traffic caused by the project (i.e. project only traffic divided by without project traffic.

Source: The Countywide Travel Demand Model updated by Fehr & Peers in January 2004.

APPENDIX F.4

ALAMEDA COUNTY CMA COUNTYWIDE TRAVEL DEMAND MODEL

	2005		2010		2025	
TAZ	House holds	Total Jobs	House holds	Total Jobs	House holds	Total Jobs
4	998	1,567	1,002	1,601	1,038	1,675
5	1,440	357	1,447	364	1,516	380
6	836	267	849	273	957	284
7	1,591	645	1,605	658	1,776	686
8	663	247	666	253	688	262
9	1,093	586	1,109	607	1,207	648
10	1,572	1,855	1,579	1,892	1,615	1,972
11	908	2,143	912	2,187	931	2,281
15	0	5	0	8	0	14
16	382	401	385	415	402	449
17	373	241	375	245	389	256
18	745	1,287	748	1,313	765	1,367
19	1,611	1,792	1,617	1,829	1,658	1,904
20	2,094	4,068	2,094	3,718	2,137	4,229
21	1,641	1,085	1,649	1,135	1,692	1,155
22	34	14,755	34	15,480	134	17,085
24	1,110	460	1,110	460	1,110	465
25	1,321	2,887	1,364	3,007	1,364	3,312
26	174	2,950	299	2,989	299	3,114
27	523	115	527	117	544	121
28	485	1,043	489	1,067	504	1,118
29	488	1,059	490	1,099	501	1,184
30	37	0	40	0	45	0
31	574	3,098	577	3,178	595	3,354
32	667	183	671	190	686	201
33	559	1,104	577	1,113	668	1,167
34	732	2,053	732	2,053	732	2,096
35	1,400	1,117	1,400	1,117	1,400	1,137
36	723	217	723	217	723	217
37	619	891	619	901	667	921
43	1,421	2,040	1,431	2,091	1,482	2,199
384	560	250	568	259	618	278
388	186	1,095	197	1,163	226	1,304
389	51	708	55	746	62	832
390	0	599	0	619	0	689
391	100	1,292	106	1,375	122	1,553
392	376	401	378	415	395	449
393	342	498	344	516	359	557
394	236	791	237	808	246	844
395	336	1,368	338	1,399	351	1,465
396	291	241	293	245	304	256
398	492	123	495	127	514	136
399	209	829	210	853	214	901
400	626	2,234	629	2,274	643	2,359
401	292	1,796	335	1,821	335	1,821
402	238	940	281	1,320	281	1,620
403	150	805	236	976	236	976
404	473	793	574	878	574	878
405	762	1,070	791	1,100	791	1,170

Table F.4-1
Alameda County CMA Countywide Travel Demand Model
City of Berkeley Land Use Summary[1]

Table F.4-1
Alameda County CMA Countywide Travel Demand Model
City of Berkeley Land Use Summary[1]

	2005		2010		2025	
TAZ	House holds	Total Jobs	House holds	Total Jobs	House holds	Total Jobs
406	6	1,061	175	1,086	175	1,121
407	634	858	634	858	692	908
408	499	2	503	2	520	2
409	393	3	396	3	409	3
410	610	477	615	486	634	507
411	324	96	327	98	337	101
412	436	477	440	486	454	507
413	638	561	641	585	657	638
414	60	775	64	815	73	912
415	39	507	42	537	48	599
416	0	557	0	595	0	663
417	116	460	123	483	140	541
418	18	472	19	497	22	555
419	3	330	3	348	3	388
420	577	0	580	0	598	0
421	372	239	374	244	385	253
422	562	206	566	208	578	213
423	788	1,942	793	1,981	811	2,067
424	465	894	465	894	661	991
425	338	523	338	523	338	533
426	210	892	210	892	210	912
427	302	433	302	443	302	473
428	1,298	452	1,312	452	1,312	466
429	1,272	568	1,317	568	1,317	568
430	622	545	622	545	622	555
431	570	3,310	570	3,339	599	3,379
432	429	587	438	823	534	863
439	851	591	857	602	887	623
727	680	805	683	822	707	858
Total	45,646	84,974	46,596	87,686	48,521	93,540

Notes
 1. Land uses as provided by Hausrath Economic Group and used in the Alameda County CMA Countywide Travel Demand Model.

Source: Fehr and Peers, 2004.

| ## | Traffic Analysis Zone in the City of Berkeley |

City Limit Line

Lawrence Berkeley National Laboratory Boundary

FIGURE F.4-1
ALAMEDA COUNTY TRAVEL DEMAND MODEL
TRAFFIC ANALYSIS ZONES

UNIVERSITY OF CALIFORNIA, BERKELEY
2020 LRDP DRAFT EIR

:

APPENDIX F.5

LEVEL OF SERVICE CALCULATION SHEETS

                          UC Berkeley LRDP EIR
                          Existing Conditions
                          AM Peak Hour

                          Scenario Report
Scenario: EXISTING AM

Command: EXISTING AM
Volume: EXISTING AM
Geometry: EXISTING AM
Impact Fee: Default Impact Fee
Trip Generation: NO PROJECT
Trip Distribution: Cumulative
Paths: Default Paths
Routes: Default Routes
Configuration: EXISTING AM

                          UC Berkeley LRDP EIR
                          Existing Conditions
                          AM Peak Hour

                       Turning Movement Report
                            NO PROJECT

| Volume | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total |
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1 Marin Avenue / San Pablo Avenue

Base	102	363	59	106	891	15	38	672	235	147	768	90	3486
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	102	363	59	106	891	15	38	672	235	147	768	90	3486

#2 Marin Avenue / The Alameda

Base	173	189	7	38	279	23	33	494	291	20	420	48	2015
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	173	189	7	38	279	23	33	494	291	20	420	48	2015

#3 Gilman Street / Sixth Street

Base	122	24	56	11	45	28	21	416	114	47	430	20	1334
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	122	24	56	11	45	28	21	416	114	47	430	20	1334

#4 Gilman Street / San Pablo Avenue

Base	113	401	25	74	1055	125	75	189	96	62	318	42	2575
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	113	401	25	74	1055	125	75	189	96	62	318	42	2575

#5 Rose Street / Shattuck Avenue

Base	55	191	11	174	961	28	28	174	40	32	185	40	1919
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	55	191	11	174	961	28	28	174	40	32	185	40	1919

#6 Cedar Street / Martin Luther King Way

Base	33	292	44	35	617	26	14	276	62	58	248	30	1735
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	33	292	44	35	617	26	14	276	62	58	248	30	1735

#7 Cedar Street / Shattuck Avenue

Base	48	256	41	127	933	52	44	257	86	94	268	56	2262
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	48	256	41	127	933	52	44	257	86	94	268	56	2262

#8 Cedar Street / Oxford Street

Base	45	186	56	34	531	19	18	314	75	144	343	19	1784
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	45	186	56	34	531	19	18	314	75	144	343	19	1784

#9 Cedar Street / Euclid Avenue

Base	30	85	29	23	295	141	50	143	117	28	209	8	1158
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	30	85	29	23	295	141	50	143	117	28	209	8	1158

```
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------
Volume    Northbound      Southbound      Eastbound       Westbound   Total
Type    Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#10 Grizzly Peak Blvd / Centennial Drive
Base     31   13   13   25   52    4    6  165  143  169   90   16    727
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total    31   13   13   25   52    4    6  165  143  169   90   16    727

#11 Hearst Avenue / Shattuck Avenue
Base     19  291   43  199  810   57   31  278   24   11  225   51   2039
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total    19  291   43  199  810   57   31  278   24   11  225   51   2039

#12 Hearst Avenue / Oxford Avenue
Base     46  328  374   48  841   38   10  399  114  207  281   27   2713
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total    46  328  374   48  841   38   10  399  114  207  281   27   2713

#13 Hearst Avenue / Spruce Street
Base      0    0    0    9    0   63   11  843    0    0  430    7   1363
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total     0    0    0    9    0   63   11  843    0    0  430    7   1363

#14 Hearst Avenue / Arch Street / Le Conte Avenue
Base      0    0    0    2    0  130  276  566    0    0  307    4   1285
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total     0    0    0    2    0  130  276  566    0    0  307    4   1285

#15 Hearst Avenue / Scenic Avenue
Base      0    0    0    0    0   37    0  531    0    0  290   55    913
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total     0    0    0    0    0   37    0  531    0    0  290   55    913

#16 Hearst Avenue / Euclid Avenue
Base      2    0    2   47    1  151   75  448    1    1  276   10   1014
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total     2    0    2   47    1  151   75  448    1    1  276   10   1014

#17 Hearst Avenue / Le Roy Avenue
Base      0    0    0   19    0   60   59  436    0    0  230    3    807
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total     0    0    0   19    0   60   59  436    0    0  230    3    807

#18 Hearst Avenue / Gayley Road / LaLoma Avenue
Base    274  212   95   12  274   21   28  161  304   21   33    5   1440
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total   274  212   95   12  274   21   28  161  304   21   33    5   1440
```

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--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------
Volume    Northbound      Southbound      Eastbound       Westbound   Total
Type    Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#19 Berkeley Way / Oxford Street
Base     39  717   40   30 1132   11   20   18   72   10    2   12   2103
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total    39  717   40   30 1132   11   20   18   72   10    2   12   2103

#20 University Avenue / Sixth Street
Base    211  111   19   73  290  325   89  932  333   40  931   21   3375
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total   211  111   19   73  290  325   89  932  333   40  931   21   3375

#21 University Avenue / San Pablo Avenue
Base    100  457   75  190  837   83   56  957   49   63  644   93   3604
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total   100  457   75  190  837   83   56  957   49   63  644   93   3604

#22 University Avenue / Martin Luther King Way
Base    178  568   80   57  833   87   81  703  185   41  477   47   3337
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total   178  568   80   57  833   87   81  703  185   41  477   47   3337

#23 University Avenue / Milvia Street
Base    100   98   21    6  203   63   37  656  137   18  406   15   1760
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total   100   98   21    6  203   63   37  656  137   18  406   15   1760

#24 University Avenue / SB Shattuck Avenue
Base      0    0    0   49  767  105  115  401  162   26  356  314   2295
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total     0    0    0   49  767  105  115  401  162   26  356  314   2295

#25 University Avenue / NB Shattuck Avenue
Base    458    0  168    0    0    0    0  444    0    0  235    0   1305
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total   458    0  168    0    0    0    0  444    0    0  235    0   1305

#26 University Avenue / Oxford Street
Base    147  487    4   41 1101   77  300   38  217    6   12   23   2453
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total   147  487    4   41 1101   77  300   38  217    6   12   23   2453

#27 Univeristy Drive (East Gate)  / Gayley Road
Base     69  476    0    0  543   75   53    0   73    0    0    0   1289
Added     0    0    0    0    0    0    0    0    0    0    0    0      0
Total    69  476    0    0  543   75   53    0   73    0    0    0   1289
```

                            UC Berkeley LRDP EIR
                            Existing Conditions
                            AM Peak Hour

| Volume | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total |
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#28 Addison Street / Oxford Street

Base	54	647	0	0	1165	61	4	0	31	0	0	0	1962
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	54	647	0	0	1165	61	4	0	31	0	0	0	1962

#29 Center Street / SB Shattuck Avenue

Base	0	0	0	15	779	71	0	69	51	17	102	0	1104
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	15	779	71	0	69	51	17	102	0	1104

#30 Center Street / NB Shattuck Avenue

Base	42	616	51	0	0	0	26	56	0	0	77	26	894
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	42	616	51	0	0	0	26	56	0	0	77	26	894

#31 Center Street / Oxford Street

Base	50	663	42	11	1145	39	26	10	43	19	6	8	2062
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	50	663	42	11	1145	39	26	10	43	19	6	8	2062

#32 Stadium Rim Road / Gayley Road

Base	0	386	19	128	471	0	12	5	14	18	1	118	1172
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	386	19	128	471	0	12	5	14	18	1	118	1172

#33 Allston Way / Oxford Street

Base	17	798	0	59	1111	34	16	0	33	0	0	0	2068
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	17	798	0	59	1111	34	16	0	33	0	0	0	2068

#34 Kittridge Street / Oxford Street / Fulton Street

Base	13	801	0	0	1122	18	6	0	23	0	0	0	1983
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	13	801	0	0	1122	18	6	0	23	0	0	0	1983

#35 Stadium Rim Road / Centennial Drive

Base	0	70	160	94	22	0	0	0	0	114	0	71	531
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	70	160	94	22	0	0	0	0	114	0	71	531

#36 Bancroft Way / Shattuck Avenue

Base	29	912	0	0	788	12	1	0	62	116	51	71	2042
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	29	912	0	0	788	12	1	0	62	116	51	71	2042

                            UC Berkeley LRDP EIR
                            Existing Conditions
                            AM Peak Hour

| Volume | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total |
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#37 Bancroft Way / Fulton Street

Base	13	146	0	0	1071	79	0	0	0	84	173	650	2216
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	13	146	0	0	1071	79	0	0	0	84	173	650	2216

#38 Bancroft Way / Ellsworth Street

Base	241	60	0	0	0	11	0	0	0	0	674	39	1025
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	241	60	0	0	0	11	0	0	0	0	674	39	1025

#39 Bancroft Way / Dana Street

Base	0	0	0	0	0	0	0	0	0	145	721	0	866
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	145	721	0	866

#40 Bancroft Way / Telegraph Avenue

Base	427	0	0	0	0	0	0	0	0	0	460	0	887
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	427	0	0	0	0	0	0	0	0	0	460	0	887

#41 Bancroft Way / Bowditch Street

Base	191	0	0	0	0	0	0	0	0	99	494	0	784
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	191	0	0	0	0	0	0	0	0	99	494	0	784

#42 Bancroft Way / College Avenue

Base	343	0	0	0	0	0	0	0	0	34	203	0	580
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	343	0	0	0	0	0	0	0	0	34	203	0	580

#43 Bancroft Way / Piedmont Avenue

Base	131	553	0	0	344	123	0	0	0	0	0	0	1151
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	131	553	0	0	344	123	0	0	0	0	0	0	1151

#44 Durant Avenue / Shattuck Avenue

Base	55	943	136	67	886	8	9	70	35	0	0	0	2209
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	55	943	136	67	886	8	9	70	35	0	0	0	2209

#45 Durant Avenue / Fulton Street

Base	0	0	0	459	656	0	123	262	27	0	0	0	1527
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	459	656	0	123	262	27	0	0	0	1527

                            UC Berkeley LRDP EIR
                            Existing Conditions
                            AM Peak Hour

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#46 Durant Avenue / Telegraph Avenue

Base	0	362	86	0	0	0	73	387	0	0	0	0	908
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	362	86	0	0	0	73	387	0	0	0	0	908

#47 Durant Avenue / College Avenue

Base	0	213	66	13	23	0	64	228	87	0	0	0	694
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	213	66	13	23	0	64	228	87	0	0	0	694

#48 Durant Avenue / Piedmont Avenue

Base	0	489	0	0	345	0	158	0	86	0	0	0	1078
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	489	0	0	345	0	158	0	86	0	0	0	1078

#49 Channing Way / Shattuck Avenue

Base	42	1070	96	19	868	19	12	59	42	62	28	39	2356
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	42	1070	96	19	868	19	12	59	42	62	28	39	2356

#50 Channing Way / Fulton Street

Base	0	0	0	86	543	51	0	132	20	7	72	0	911
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	86	543	51	0	132	20	7	72	0	911

#51 Channing Way / Telegraph Avenue

Base	56	423	79	0	0	0	16	179	0	0	98	9	860
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	56	423	79	0	0	0	16	179	0	0	98	9	860

#52 Channing Way / College Avenue

Base	26	256	22	6	92	2	21	76	31	88	150	43	813
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	26	256	22	6	92	2	21	76	31	88	150	43	813

#53 Haste Street / Shattuck Avenue

Base	66	1117	0	0	903	46	0	0	0	185	276	75	2668
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	66	1117	0	0	903	46	0	0	0	185	276	75	2668

#54 Haste Street / Fulton Street

Base	0	0	0	0	433	145	0	0	0	23	380	0	981
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	433	145	0	0	0	23	380	0	981

                            UC Berkeley LRDP EIR
                            Existing Conditions
                            AM Peak Hour

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#55 Haste Street / Telegraph Avenue

Base	216	520	0	0	0	0	0	0	0	0	334	34	1104
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	216	520	0	0	0	0	0	0	0	0	334	34	1104

#56 Haste Street / College Avenue

Base	167	267	0	0	115	69	0	0	0	48	223	21	910
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	167	267	0	0	115	69	0	0	0	48	223	21	910

#57 Dwight Way / Martin Luther King Way

Base	62	690	66	88	868	163	68	419	83	0	0	0	2507
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	62	690	66	88	868	163	68	419	83	0	0	0	2507

#58 Dwight Way / Shattuck Avenue

Base	0	1094	113	95	989	0	66	420	151	0	0	0	2928
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1094	113	95	989	0	66	420	151	0	0	0	2928

#59 Dwight Way / Fulton Street

Base	0	0	12	449	0	0	0	620	6	0	0	0	1087
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	12	449	0	0	0	620	6	0	0	0	1087

#60 Dwight Way / Telegraph Avenue

Base	0	697	78	0	0	0	66	479	565	0	0	0	1885
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	697	78	0	0	0	66	479	565	0	0	0	1885

#61 Dwight Way / College Avenue

Base	0	365	51	10	150	0	68	352	85	0	0	0	1081
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	365	51	10	150	0	68	352	85	0	0	0	1081

#62 Dwight Way / Piedmont Avenue / Warring Street

Base	0	583	0	8	324	0	91	143	238	42	0	48	1477
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	583	0	8	324	0	91	143	238	42	0	48	1477

#63 Dwight Avenue / Prospect Street

Base	0	0	0	14	0	109	246	72	0	0	53	15	509
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	14	0	109	246	72	0	0	53	15	509

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound      Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#64 Adeline Street / Ward Avenue / Shattuck Avenue
Base     0  784    3    0  736  546  723    0    4    0    0    0   2796
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0  784    3    0  736  546  723    0    4    0    0    0   2796

#65 Derby Street / Warring Street
Base     0    0    0  650    0   31   14   20    0    0   34  779   1528
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0    0    0  650    0   31   14   20    0    0   34  779   1528

#66 Derby Street / Claremont Blvd.
Base     5    0   64    0    0    0    0  665   12   52  813    0   1611
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    5    0   64    0    0    0    0  665   12   52  813    0   1611

#67 Ashby Avenue / Seventh Street
Base    62  162   54   54  193  224  433  915  306  111  663   25   3202
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   62  162   54   54  193  224  433  915  306  111  663   25   3202

#68 Ashby Avenue / San Pablo Avenue
Base   173  521   53  137  741  128   84  584  134   51  613  135   3354
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total  173  521   53  137  741  128   84  584  134   51  613  135   3354

#69 Ashby Avenue / Adeline Street
Base    74  567   61   11  438   96  189  564   49   83  549   14   2695
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   74  567   61   11  438   96  189  564   49   83  549   14   2695

#70 Ashby Avenue / Shattuck Avenue
Base    77  590   26  124  450   35   33  557   31   40  550  182   2695
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   77  590   26  124  450   35   33  557   31   40  550  182   2695

#71 Ashby Avenue / Telegraph Avenue
Base   150  985   80  148  623  103   86  549  120   89  573   83   3589
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total  150  985   80  148  623  103   86  549  120   89  573   83   3589

#72 Ashby Avenue / College Avenue
Base    79  323   26  118  232   95   33  490   92    4  611  229   2332
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   79  323   26  118  232   95   33  490   92    4  611  229   2332
```
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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound      Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#73 Ashby Avenue / Claremont Avenue
Base    35  288  153  321  272   59   43  504   13   90  637  429   2844
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   35  288  153  321  272   59   43  504   13   90  637  429   2844

#74 Tunnel Road / SR 13
Base     0 1293  435  487  608    0    0    0    0  205    0  307   3335
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0 1293  435  487  608    0    0    0    0  205    0  307   3335
```
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                              Existing Conditions
                                AM Peak Hour

                          Impact Analysis Report
                            Level Of Service

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 1 Marin Avenue / San Pablo Avenu	E 79.2	0.852	E 79.2	0.852	+ 0.000 D/V
# 2 Marin Avenue / The Alameda	B 13.2	0.506	B 13.2	0.506	+ 0.000 D/V
# 3 Gilman Street / Sixth Street	B 11.5	0.578	B 11.5	0.578	+ 0.000 D/V
# 4 Gilman Street / San Pablo Aven	D 41.0	0.812	D 41.0	0.812	+ 0.000 D/V
# 5 Rose Street / Shattuck Avenue	A 7.1	0.505	A 7.1	0.505	+ 0.000 D/V
# 6 Cedar Street / Martin Luther K	B 17.2	0.694	B 17.2	0.694	+ 0.000 D/V
# 7 Cedar Street / Shattuck Avenue	A 9.7	0.567	A 9.7	0.567	+ 0.000 D/V
# 8 Cedar Street / Oxford Street	D 49.4	0.928	D 49.4	0.928	+ 0.000 D/V
# 9 Cedar Street / Euclid Avenue	B 13.1	0.570	B 13.1	0.570	+ 0.000 D/V
# 10 Grizzly Peak Blvd / Centennial	B 10.2	0.416	B 10.2	0.416	+ 0.000 V/C
# 11 Hearst Avenue / Shattuck Avenu	A 6.1	0.434	A 6.1	0.434	+ 0.000 D/V
# 12 Hearst Avenue / Oxford Avenue	A 10.0	0.487	A 10.0	0.487	+ 0.000 D/V
# 13 Hearst Avenue / Spruce Street	B 3.0	0.000	B 3.0	0.000	+ 0.000 V/C
# 14 Hearst Avenue / Arch Street /	B 2.4	0.000	B 2.4	0.000	+ 0.000 V/C
# 15 Hearst Avenue / Scenic Avenue	A 0.3	0.000	A 0.3	0.000	+ 0.000 V/C
# 16 Hearst Avenue / Euclid Avenue	B 15.4	0.471	B 15.4	0.471	+ 0.000 D/V
# 17 Hearst Avenue / Le Roy Avenue	B 3.3	0.000	B 3.3	0.000	+ 0.000 V/C
# 18 Hearst Avenue / Gayley Road /	C 22.4	0.924	C 22.4	0.924	+ 0.000 D/V
# 19 Berkeley Way / Oxford Street	A 4.7	0.486	A 4.7	0.486	+ 0.000 D/V
# 20 University Avenue / Sixth Stre	F 83.6	0.812	F 83.6	0.812	+ 0.000 D/V
# 21 University Avenue / San Pablo	F 115.4	0.822	F 115.4	0.822	+ 0.000 D/V
# 22 University Avenue / Martin Lut	C 20.7	0.789	C 20.7	0.789	+ 0.000 D/V
# 23 University Avenue / Milvia Str	B 10.8	0.502	B 10.8	0.502	+ 0.000 D/V

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                              Existing Conditions
                                AM Peak Hour

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 24 University Avenue / SB Shattuc	B 19.7	0.459	B 19.7	0.459	+ 0.000 D/V
# 25 University Avenue / NB Shattuc	B 15.7	0.335	B 15.7	0.335	+ 0.000 D/V
# 26 University Avenue / Oxford Str	C 29.0	0.800	C 29.0	0.800	+ 0.000 D/V
# 27 Univeristy Drive (East Gate)	C 1.9	0.000	C 1.9	0.000	+ 0.000 V/C
# 28 Addison Street / Oxford Street	B 0.3	0.000	B 0.3	0.000	+ 0.000 V/C
# 29 Center Street / SB Shattuck Av	B 14.9	0.348	B 14.9	0.348	+ 0.000 D/V
# 30 Center Street / NB Shattuck Av	A 4.6	0.285	A 4.6	0.285	+ 0.000 D/V
# 31 Center Street / Oxford Street	A 8.3	0.516	A 8.3	0.516	+ 0.000 D/V
# 32 Stadium Rim Road / Gayley Road	D 26.2	0.911	D 26.2	0.911	+ 0.000 V/C
# 33 Allston Way / Oxford Street	D 4.4	0.000	D 4.4	0.000	+ 0.000 V/C
# 34 Kittridge Street / Oxford Stre	C 2.5	0.000	C 2.5	0.000	+ 0.000 V/C
# 35 Stadium Rim Road / Centennial	A 9.2	0.325	A 9.2	0.325	+ 0.000 V/C
# 36 Bancroft Way / Shattuck Avenue	A 8.6	0.457	A 8.6	0.457	+ 0.000 D/V
# 37 Bancroft Way / Fulton Street	A 6.3	0.394	A 6.3	0.394	+ 0.000 D/V
# 38 Bancroft Way / Ellsworth Stree	C 3.2	0.000	C 3.2	0.000	+ 0.000 V/C
# 39 Bancroft Way / Dana Street	A 0.0	0.000	A 0.0	0.000	+ 0.000 V/C
# 40 Bancroft Way / Telegraph Avenu	C 20.4	0.258	C 20.4	0.258	+ 0.000 D/V
# 41 Bancroft Way / Bowditch Street	B 11.5	0.456	B 11.5	0.456	+ 0.000 V/C
# 42 Bancroft Way / College Avenue	B 11.8	0.547	B 11.8	0.547	+ 0.000 V/C
# 43 Bancroft Way / Piedmont Avenue	D 28.2	0.930	D 28.2	0.930	+ 0.000 V/C
# 44 Durant Avenue / Shattuck Avenu	B 11.3	0.472	B 11.3	0.472	+ 0.000 D/V
# 45 Durant Avenue / Fulton Street	A 7.3	0.352	A 7.3	0.352	+ 0.000 D/V
# 46 Durant Avenue / Telegraph Aven	B 10.7	0.257	B 10.7	0.257	+ 0.000 D/V
# 47 Durant Avenue / College Avenue	A 9.2	0.314	A 9.2	0.314	+ 0.000 D/V
# 48 Durant Avenue / Piedmont Avenu	C 17.4	0.761	C 17.4	0.761	+ 0.000 V/C

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                         Existing Conditions
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Intersection		Base			Future		Change
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in
# 49 Channing Way / Shattuck Avenue	A	4.8	0.489	A	4.8	0.489	+ 0.000 D/V
# 50 Channing Way / Fulton Street	B	12.3	0.528	B	12.3	0.528	+ 0.000 V/C
# 51 Channing Way / Telegraph Avenu	A	9.0	0.338	A	9.0	0.338	+ 0.000 D/V
# 52 Channing Way / College Avenue	B	16.2	0.474	B	16.2	0.474	+ 0.000 D/V
# 53 Haste Street / Shattuck Avenue	D	50.9	0.563	D	50.9	0.563	+ 0.000 D/V
# 54 Haste Street / Fulton Street	B	13.8	0.340	B	13.8	0.340	+ 0.000 D/V
# 55 Haste Street / Telegraph Avenu	B	15.9	0.381	B	15.9	0.381	+ 0.000 D/V
# 56 Haste Street / College Avenue	A	8.3	0.467	A	8.3	0.467	+ 0.000 D/V
# 57 Dwight Way / Martin Luther Kin	B	14.2	0.716	B	14.2	0.716	+ 0.000 D/V
# 58 Dwight Way / Shattuck Avenue	B	10.3	0.740	B	10.3	0.740	+ 0.000 D/V
# 59 Dwight Way / Fulton Street	B	11.3	0.432	B	11.3	0.432	+ 0.000 D/V
# 60 Dwight Way / Telegraph Avenue	B	16.2	0.680	B	16.2	0.680	+ 0.000 D/V
# 61 Dwight Way / College Avenue	B	10.4	0.439	B	10.4	0.439	+ 0.000 D/V
# 62 Dwight Way / Piedmont Avenue /	A	9.4	0.375	A	9.4	0.375	+ 0.000 D/V
# 63 Dwight Avenue / Prospect Stree	B	5.9	0.000	B	5.9	0.000	+ 0.000 V/C
# 64 Adeline Street / Ward Avenue /	B	14.9	0.738	B	14.9	0.738	+ 0.000 D/V
# 65 Derby Street / Warring Street	F	150.3	1.304	F	150.3	1.304	+ 0.000 V/C
# 66 Derby Street / Claremont Blvd.	B	13.4	0.584	B	13.4	0.584	+ 0.000 D/V
# 67 Ashby Avenue / Seventh Street	C	34.3	0.850	C	34.3	0.850	+ 0.000 D/V
# 68 Ashby Avenue / San Pablo Avenu	C	28.7	0.738	C	28.7	0.738	+ 0.000 D/V
# 69 Ashby Avenue / Adeline Street	D	40.1	0.539	D	40.1	0.539	+ 0.000 D/V
# 70 Ashby Avenue / Shattuck Avenue	B	14.9	0.483	B	14.9	0.483	+ 0.000 D/V
# 71 Ashby Avenue / Telegraph Avenu	C	26.3	0.745	C	26.3	0.745	+ 0.000 D/V
# 72 Ashby Avenue / College Avenue	C	30.6	1.016	C	30.6	1.016	+ 0.000 D/V

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Intersection		Base			Future		Change
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in
# 73 Ashby Avenue / Claremont Avenu	C	22.0	0.717	C	22.0	0.717	+ 0.000 D/V
# 74 Tunnel Road / SR 13	B	15.9	0.792	B	15.9	0.792	+ 0.000 D/V

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                          Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #1 Marin Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):        0.852
Loss Time (sec):     16 (Y+R =  4 sec) Average Delay (sec/veh):   79.2
Optimal Cycle:      100          Level Of Service:                 E
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Protected        Protected
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        1  0  1  1  0    1  0  1  1  0    1  0  1  1  0    1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     102  363   59   106  891   15    38  672  235   147  768   90
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  102  363   59   106  891   15    38  672  235   147  768   90
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:   112  399   65   116  979   16    42  738  258   162  844   99
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  112  399   65   116  979   16    42  738  258   162  844   99
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   112  399   65   116  979   16    42  738  258   162  844   99
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.93 0.93  0.95 0.95 0.95  0.95 0.91 0.91  0.95 0.93 0.93
Lanes:       1.00 1.72 0.28  1.00 1.97 0.03  1.00 1.48 0.52  1.00 1.79 0.21
Final Sat.:  1805 3040  494  1805 3540   60  1805 2570  899  1805 3180  373
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.13 0.13  0.06 0.28 0.28  0.02 0.29 0.29  0.09 0.27 0.27
Crit Moves:  ****              ****              ****              ****
Green/Cycle: 0.12 0.36 0.36  0.12 0.36 0.36  0.17 0.21 0.21  0.15 0.35 0.35
Volume/Cap:  0.52 0.36 0.36  0.54 0.77 0.77  0.14 1.37 1.37  0.60 0.76 0.76
Delay/Veh:   43.5 23.8 23.8  44.1 31.2 31.2  35.5  214 213.9 43.3 31.5 31.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  43.5 23.8 23.8  44.1 31.2 31.2  35.5  214 213.9 43.3 31.5 31.5
DesignQueue:    6   15    2     6   37    1     2   34   12     8   32    4
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                          Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #2 Marin Avenue / The Alameda
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.506
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   13.2
Optimal Cycle:       56          Level Of Service:                 B
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  25   25   25   25   25   25   23   23   23   23   23   23
Lanes:        0  1  0  1  0    0  1  0  1  0    0  1  0  1  0    0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     173  189    7    38  279   23    33  494  291    20  420   48
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  173  189    7    38  279   23    33  494  291    20  420   48
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:   186  203    8    41  300   25    35  531  313    22  452   52
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  186  203    8    41  300   25    35  531  313    22  452   52
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   186  203    8    41  300   25    35  531  313    22  452   52
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.63 0.63 0.63  0.83 0.83 0.83  0.83 0.83 0.83  0.85 0.85 0.85
Lanes:       0.94 1.02 0.04  0.22 1.64 0.14  0.08 1.21 0.71  0.08 1.72 0.20
Final Sat.:  1131 1235   46   353 2593  214   127 1901 1120   133 2785  318
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.16 0.16  0.12 0.12 0.12  0.28 0.28 0.28  0.16 0.16 0.16
Crit Moves:  ****              ****              ****
Green/Cycle: 0.45 0.45 0.45  0.45 0.45 0.45  0.46 0.46 0.46  0.46 0.46 0.46
Volume/Cap:  0.36 0.36 0.36  0.25 0.25 0.25  0.61 0.61 0.61  0.35 0.35 0.35
Delay/Veh:   12.5 12.5 12.5  11.4 11.4 11.4  15.0 15.0 15.0  11.9 11.9 11.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  12.5 12.5 12.5  11.4 11.4 11.4  15.0 15.0 15.0  11.9 11.9 11.9
DesignQueue:    4    4    0     1    6    0     1   11    6     0    9    1
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #3 Gilman Street / Sixth Street
********************************************************************************
Cycle (sec):         65        Critical Vol./Cap. (X):          0.578
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   11.5
Optimal Cycle:       46        Level Of Service:                  B
********************************************************************************
Approach:      North Bound      South Bound       East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  19   19   19    19   19   19    19   19   19    19   19   19
Lanes:        0  0  1! 0  0   0  1  0  1  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    122   24   56    11   45   28    21  416  114    47  430   20
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 122   24   56    11   45   28    21  416  114    47  430   20
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.89 0.89 0.89  0.89 0.89 0.89  0.89 0.89 0.89  0.89 0.89 0.89
PHF Volume:  137   27   63    12   51   31    24  467  128    53  483   22
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 137   27   63    12   51   31    24  467  128    53  483   22
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  137   27   63    12   51   31    24  467  128    53  483   22
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.73 0.73 0.73  0.83 0.83 0.83  0.95 0.95 0.95  0.91 0.91 0.91
Lanes:      0.60 0.12 0.28  0.26 1.07 0.67  0.04 0.75 0.21  0.09 0.87 0.04
Final Sat.:  842  166  387   412 1685 1048    69 1359  373   163 1495   70
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.16 0.16  0.03 0.03 0.03  0.34 0.34 0.34  0.32 0.32 0.32
Crit Moves:      ****                           ****
Green/Cycle: 0.32 0.32 0.32  0.32 0.32 0.32  0.62 0.62 0.62  0.62 0.62 0.62
Volume/Cap: 0.50 0.50 0.50  0.09 0.09 0.09  0.56 0.56 0.56  0.53 0.53 0.53
Delay/Veh:  21.8 21.8 21.8  15.5 15.5 15.5   9.4  9.4  9.4   9.0  9.0  9.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 21.8 21.8 21.8  15.5 15.5 15.5   9.4  9.4  9.4   9.0  9.0  9.0
DesignQueue:   3    1    2     0    1    1     0    7    2     1    7    0
********************************************************************************
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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #4 Gilman Street / San Pablo Avenue
********************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):          0.812
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):   41.0
Optimal Cycle:       82        Level Of Service:                  D
********************************************************************************
Approach:      North Bound      South Bound       East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   4   35   35     4   35   35    31   31   31    31   31   31
Lanes:        1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    113  401   25    74 1055  125    75  189   96    62  318   42
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 113  401   25    74 1055  125    75  189   96    62  318   42
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:  124  441   27    81 1159  137    82  208  105    68  349   46
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 124  441   27    81 1159  137    82  208  105    68  349   46
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  124  441   27    81 1159  137    82  208  105    68  349   46
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.94 0.94  0.95 0.93 0.93  0.63 0.63 0.63  0.87 0.87 0.87
Lanes:      1.00 1.88 0.12  1.00 1.79 0.21  0.42 1.05 0.53  0.15 0.75 0.10
Final Sat.: 1805 3368  210  1805 3176  376   497 1252  636   243 1246  165
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.07 0.13 0.13  0.05 0.37 0.37  0.17 0.17 0.17  0.28 0.28 0.28
Crit Moves: ****              ****                           ****
Green/Cycle: 0.15 0.37 0.37  0.15 0.37 0.37  0.37 0.37 0.37  0.37 0.37 0.37
Volume/Cap: 0.46 0.35 0.35  0.30 0.99 0.99  0.45 0.45 0.45  0.77 0.77 0.77
Delay/Veh:  44.3 23.6 23.6  40.7 53.1 53.1  25.9 25.9 25.9  37.1 37.1 37.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 44.3 23.6 23.6  40.7 53.1 53.1  25.9 25.9 25.9  37.1 37.1 37.1
DesignQueue:   6   16    1     4   44    5     3    7    4     3   13    2
********************************************************************************
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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #5 Rose Street / Shattuck Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.505
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):    7.1
Optimal Cycle:      52          Level Of Service:                A
********************************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:   17   17   17    17   17   17    27   27   27    27   27   27
Lanes:        1  0  1  1  0   1  0  1  1  0   0  1  0  0  1   0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      55  191   11   174  961   28    28  174   40    32  185   40
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   55  191   11   174  961   28    28  174   40    32  185   40
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:    58  201   12   183 1012   29    29  183   42    34  195   42
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   58  201   12   183 1012   29    29  183   42    34  195   42
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    58  201   12   183 1012   29    29  183   42    34  195   42
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.25 0.94 0.94  0.61 0.95 0.95  0.94 0.94 0.85  0.93 0.93 0.93
Lanes:       1.00 1.89 0.11  1.00 1.94 0.06  0.14 0.86 1.00  0.12 0.72 0.16
Final Sat.:   479 3386  195  1161 3494  102   247 1534 1615   219 1267  274
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.12 0.06 0.06  0.16 0.29 0.29  0.12 0.12 0.03  0.15 0.15 0.15
Crit Moves:            ****                   ****
Green/Cycle: 0.50 0.50 0.50  0.50 0.50 0.50  0.42 0.42 0.42  0.42 0.42 0.42
Volume/Cap:  0.24 0.12 0.12  0.32 0.58 0.58  0.28 0.28 0.06  0.36 0.36 0.36
Delay/Veh:    5.5  3.0  3.0   4.6  5.2  5.2  13.2 13.2 11.3  14.2 14.2 14.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   5.5  3.0  3.0   4.6  5.2  5.2  13.2 13.2 11.3  14.2 14.2 14.2
DesignQueue:    1    4    0     3   19    1     1    4    1     1    4    1
********************************************************************************
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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #6 Cedar Street / Martin Luther King Way
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.694
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):   17.2
Optimal Cycle:      48          Level Of Service:                B
********************************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:   20   20   20    20   20   20    20   20   20    20   20   20
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      33  292   44    35  617   26    14  276   62    58  248   30
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   33  292   44    35  617   26    14  276   62    58  248   30
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:    34  304   46    36  643   27    15  288   65    60  258   31
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   34  304   46    36  643   27    15  288   65    60  258   31
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    34  304   46    36  643   27    15  288   65    60  258   31
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.90 0.90 0.90  0.96 0.96 0.96  0.96 0.96 0.96  0.83 0.83 0.83
Lanes:       0.09 0.79 0.12  0.05 0.91 0.04  0.04 0.78 0.18  0.17 0.74 0.09
Final Sat.:   153 1355  204    94 1665   70    72 1425  320   272 1162  141
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.22 0.22 0.22  0.39 0.39 0.39  0.20 0.20 0.20  0.22 0.22 0.22
Crit Moves:            ****                   ****
Green/Cycle: 0.54 0.54 0.54  0.54 0.54 0.54  0.31 0.31 0.31  0.31 0.31 0.31
Volume/Cap:  0.42 0.42 0.42  0.72 0.72 0.72  0.66 0.66 0.66  0.72 0.72 0.72
Delay/Veh:    7.7  7.7  7.7  12.4 12.4 12.4  25.4 25.4 25.4  29.0 29.0 29.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   7.7  7.7  7.7  12.4 12.4 12.4  25.4 25.4 25.4  29.0 29.0 29.0
DesignQueue:    1    5    1     1   12    0     0    7    2     2    7    1
********************************************************************************
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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
------------------------------------------------------------------------------
                       Level Of Service Computation Report
                  2000 HCM Operations Method (Base Volume Alternative)
******************************************************************************
Intersection #7 Cedar Street / Shattuck Avenue
******************************************************************************
Cycle (sec):         65           Critical Vol./Cap. (X):         0.567
Loss Time (sec):      8 (Y+R =  5 sec) Average Delay (sec/veh):     9.7
Optimal Cycle:       50           Level Of Service:                 A
******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  20   20   20    20   20   20    22   22   22    22   22   22
Lanes:        1 0  1  1 0    1 0  1  1 0    1 0  0  1 0    1 0  0  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     48  256   41   127  933   52    44  257   86    94  268   56
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  48  256   41   127  933   52    44  257   86    94  268   56
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:   52  275   44   137 1003   56    47  276   92   101  288   60
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  52  275   44   137 1003   56    47  276   92   101  288   60
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   52  275   44   137 1003   56    47  276   92   101  288   60
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.26 0.93 0.93  0.55 0.94 0.94  0.39 0.96 0.96  0.37 0.97 0.97
Lanes:      1.00 1.72 0.28  1.00 1.89 0.11  1.00 0.75 0.25  1.00 0.83 0.17
Final Sat.:  502 3046  488  1053 3392  189   743 1370  458   695 1531  320
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.10 0.09 0.09  0.13 0.30 0.30  0.06 0.20 0.20  0.15 0.19 0.19
Crit Moves:                 ****           ****
Green/Cycle:0.53 0.53 0.53  0.53 0.53 0.53  0.34 0.34 0.34  0.34 0.34 0.34
Volume/Cap: 0.19 0.17 0.17  0.24 0.56 0.56  0.19 0.60 0.60  0.43 0.56 0.56
Delay/Veh:   3.6  2.1  2.1   3.1  3.7  3.7  16.8 22.0 22.0  22.3 21.1 21.1
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  3.6  2.1  2.1   3.1  3.7  3.7  16.8 22.0 22.0  22.3 21.1 21.1
DesignQueue:   1    5    1     2   18    1     1    7    2     2    7    1
******************************************************************************
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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
------------------------------------------------------------------------------
                       Level Of Service Computation Report
                  2000 HCM Operations Method (Base Volume Alternative)
******************************************************************************
Intersection #8 Cedar Street / Oxford Street
******************************************************************************
Cycle (sec):         65           Critical Vol./Cap. (X):         0.928
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    49.4
Optimal Cycle:       92           Level Of Service:                 D
******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  16   16   16    16   16   16    16   16   16    16   16   16
Lanes:        0 0  1! 0 0    0 0  1! 0 0    0 0  1! 0 0    0 0  1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     45  186   56    34  531   19    18  314   75   144  343   19
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  45  186   56    34  531   19    18  314   75   144  343   19
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90
PHF Volume:   50  207   62    38  590   21    20  349   83   160  381   21
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  50  207   62    38  590   21    20  349   83   160  381   21
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   50  207   62    38  590   21    20  349   83   160  381   21
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.84 0.84 0.84  0.96 0.96 0.96  0.95 0.95 0.95  0.64 0.64 0.64
Lanes:      0.16 0.65 0.19  0.06 0.91 0.03  0.04 0.78 0.18  0.28 0.68 0.04
Final Sat.:  250 1031  311   107 1666   60    80 1391  332   348  829   46
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.20 0.20 0.20  0.35 0.35 0.35  0.25 0.25 0.25  0.46 0.46 0.46
Crit Moves:                 ****                            ****
Green/Cycle:0.49 0.49 0.49  0.49 0.49 0.49  0.38 0.38 0.38  0.38 0.38 0.38
Volume/Cap: 0.41 0.41 0.41  0.73 0.73 0.73  0.66 0.66 0.66  1.21 1.21 1.21
Delay/Veh:  10.0 10.0 10.0  15.5 15.5 15.5  21.6 21.6 21.6 133.1  133 133.1
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 10.0 10.0 10.0  15.5 15.5 15.5  21.6 21.6 21.6 133.1  133 133.1
DesignQueue:   1    4    1     1   12    0     0    8    2     4    9    1
******************************************************************************
```

```
                             UC Berkeley LRDP EIR
                             Existing Conditions
                                AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #9 Cedar Street / Euclid Avenue
********************************************************************************
Cycle (sec):          60         Critical Vol./Cap. (X):          0.570
Loss Time (sec):       8 (Y+R =  5 sec) Average Delay (sec/veh):   13.1
Optimal Cycle:        42         Level Of Service:                  B
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   17   17   17    17   17   17    17   17   17    17   17   17
Lanes:         0    0  1! 0    0    0    0  1! 0    0    0  1! 0    0    0  1! 0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     30   85   29    23  295  141    50  143  117    28  209    8
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  30   85   29    23  295  141    50  143  117    28  209    8
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90
PHF Volume:   33   94   32    26  328  157    56  159  130    31  232    9
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  33   94   32    26  328  157    56  159  130    31  232    9
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   33   94   32    26  328  157    56  159  130    31  232    9
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.85 0.85 0.85  0.94 0.94 0.94  0.86 0.86 0.86  0.93 0.93 0.93
Lanes:      0.21 0.59 0.20  0.05 0.64 0.31  0.16 0.46 0.38  0.11 0.86 0.03
Final Sat.:  335  950  324    90 1151  550   265  758  620   202 1509   58
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.10 0.10 0.10  0.28 0.28 0.28  0.21 0.21 0.21  0.15 0.15 0.15
Crit Moves:                 ****              ****
Green/Cycle: 0.50 0.50 0.50  0.50 0.50 0.50  0.37 0.37 0.37  0.37 0.37 0.37
Volume/Cap: 0.20 0.20 0.20  0.57 0.57 0.57  0.57 0.57 0.57  0.42 0.42 0.42
Delay/Veh:   8.5  8.5  8.5  11.4 11.4 11.4  16.5 16.5 16.5  14.6 14.6 14.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  8.5  8.5  8.5  11.4 11.4 11.4  16.5 16.5 16.5  14.6 14.6 14.6
DesignQueue:   1    2    1     0    6    3     1    3    3     1    5    0
********************************************************************************
```

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                             UC Berkeley LRDP EIR
                             Existing Conditions
                                AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #10 Grizzly Peak Blvd / Centennial Drive
********************************************************************************
Cycle (sec):         100         Critical Vol./Cap. (X):          0.416
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):   10.2
Optimal Cycle:         0         Level Of Service:                  B
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0    0  1! 0    0    0    0  1! 0    0    0  1! 0    0    0  1! 0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 7:00-9:00 AM
Base Vol:     31   13   13    25   52    4     6  165  143   169   90   16
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  31   13   13    25   52    4     6  165  143   169   90   16
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:   33   14   14    27   55    4     6  176  152   180   96   17
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  33   14   14    27   55    4     6  176  152   180   96   17
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   33   14   14    27   55    4     6  176  152   180   96   17
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.54 0.23 0.23  0.31 0.64 0.05  0.02 0.53 0.45  0.61 0.33 0.06
Final Sat.:  327  137  137   187  389   30    15  422  365   454  242   43
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.10 0.10 0.10  0.14 0.14 0.14  0.42 0.42 0.42  0.40 0.40 0.40
Crit Moves:      ****             ****             ****                  ****
Delay/Veh:   8.9  8.9  8.9   9.2  9.2  9.2  10.3 10.3 10.3  10.7 10.7 10.7
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  8.9  8.9  8.9   9.2  9.2  9.2  10.3 10.3 10.3  10.7 10.7 10.7
LOS by Move:   A    A    A     A    A    A     B    B    B     B    B    B
ApproachDel:      8.9              9.2             10.3             10.7
Delay Adj:       1.00             1.00             1.00             1.00
ApprAdjDel:       8.9              9.2             10.3             10.7
LOS by Appr:       A                A                B                B
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
```

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                   Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #11 Hearst Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):         65            Critical Vol./Cap. (X):        0.434
Loss Time (sec):      8 (Y+R =  6 sec) Average Delay (sec/veh):       6.1
Optimal Cycle:       52            Level Of Service:                A
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted         Permitted        Permitted         Permitted
Rights:          Include           Include          Include           Include
Min. Green:   22   22   22    22   22   22    22   22   22    22   22   22
Lanes:         1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      19  291   43   199  810   57    31  278   24    11  225   51
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   19  291   43   199  810   57    31  278   24    11  225   51
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:    21  320   47   219  890   63    34  305   26    12  247   56
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   21  320   47   219  890   63    34  305   26    12  247   56
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    21  320   47   219  890   63    34  305   26    12  247   56
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.30 0.93 0.93  0.53 0.94 0.94  0.85 0.85 0.85  0.87 0.87 0.87
Lanes:       1.00 1.74 0.26  1.00 1.87 0.13  0.19 1.67 0.14  0.08 1.57 0.35
Final Sat.:   574 3085  456  1011 3339  235   299 2683  232   126 2577  584
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.10 0.10  0.22 0.27 0.27  0.11 0.11 0.11  0.10 0.10 0.10
Crit Moves:                  ****                ****
Green/Cycle: 0.56 0.56 0.56  0.56 0.56 0.56  0.36 0.36 0.36  0.36 0.36 0.36
Volume/Cap:  0.06 0.18 0.18  0.38 0.47 0.47  0.32 0.32 0.32  0.27 0.27 0.27
Delay/Veh:    1.3  1.2  1.2   3.1  2.0  2.0  16.0 16.0 16.0  15.5 15.5 15.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   1.3  1.2  1.2   3.1  2.0  2.0  16.0 16.0 16.0  15.5 15.5 15.5
DesignQueue:    0    5    1     4   15    1     1    7    1     0    6    1
********************************************************************************
```

```
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
```

```
                   Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #12 Hearst Avenue / Oxford Avenue
********************************************************************************
Cycle (sec):         65            Critical Vol./Cap. (X):        0.487
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      10.0
Optimal Cycle:       49            Level Of Service:                A
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted         Permitted        Permitted         Permitted
Rights:          Include           Include          Include           Include
Min. Green:   19   19   19    19   19   19    22   22   22    22   22   22
Lanes:         1  0  1  1  0   0  1  0  1  0   0  1  0  1  0   1  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      46  328  374    48  841   38    10  399  114   207  281   27
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   46  328  374    48  841   38    10  399  114   207  281   27
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:    49  349  398    51  895   40    11  424  121   220  299   29
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   49  349  398    51  895   40    11  424  121   220  299   29
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    49  349  398    51  895   40    11  424  121   220  299   29
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
Lanes:       1.00 1.00 1.00  0.10 1.82 0.08  0.04 1.52 0.44  1.20 1.64 0.16
Final Sat.:  1900 1805 1805   187 3275  148    69 2754  787  2177 2955  284
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.19 0.22  0.27 0.27 0.27  0.15 0.15 0.15  0.10 0.10 0.10
Crit Moves:                  ****                ****
Green/Cycle: 0.52 0.52 0.52  0.52 0.52 0.52  0.42 0.42 0.42  0.42 0.42 0.42
Volume/Cap:  0.05 0.37 0.42  0.52 0.52 0.52  0.37 0.37 0.37  0.24 0.24 0.24
Delay/Veh:    5.6  7.2  7.7   8.5  8.5  8.5  13.8 13.8 13.8  12.6 12.6 12.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   5.6  7.2  7.7   8.5  8.5  8.5  13.8 13.8 13.8  12.6 12.6 12.6
DesignQueue:    1    6    7     1   16    1     0    9    3     5    6    1
********************************************************************************
```

```
--------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
****************************************************************************
Intersection #13 Hearst Avenue / Spruce Street
****************************************************************************
Average Delay (sec/veh):     3.0        Worst Case Level Of Service:      B
****************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           -----------|--------------||--------------||--------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:         Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  1! 0  0    0  1  1  0  0    0  0  1  1  0
           -----------|--------------||--------------||--------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0    0    0     9    0   63    11  843    0     0  430    7
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0    0    0     9    0   63    11  843    0     0  430    7
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:   0    0    0     9    0   66    12  887    0     0  453    7
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:   0    0    0     9    0   66    12  887    0     0  453    7
           -----------|--------------||--------------||--------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.8 xxxx  6.9  4.1 xxxx xxxxx  xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx  xxxx xxxxx
           -----------|--------------||--------------||--------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  923 xxxx  230   460 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  272 xxxx  779  1112 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  270 xxxx  779  1112 xxxx xxxxx  xxxx xxxx xxxxx
           -----------|--------------||--------------||--------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  8.3 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     A    *    *     *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx  630 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 11.5 xxxxx  8.3 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *     *    B    *     A    *    *     *    *    *
ApproachDel:   xxxxxx            11.5          xxxxxx          xxxxxx
ApproachLOS:      *               B              *               *
```

```
--------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
****************************************************************************
Intersection #14 Hearst Avenue / Arch Street / Le Conte Avenue
****************************************************************************
Average Delay (sec/veh):     2.4        Worst Case Level Of Service:      B
****************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           -----------|--------------||--------------||--------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:         Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
           -----------|--------------||--------------||--------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0    0    0     2    0  130   276  566    0     0  307    4
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0    0    0     2    0  130   276  566    0     0  307    4
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:   0    0    0     2    0  138   294  602    0     0  327    4
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:   0    0    0     2    0  138   294  602    0     0  327    4
           -----------|--------------||--------------||--------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.8 xxxx  6.9  4.1 xxxx xxxxx  xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx  xxxx xxxxx
           -----------|--------------||--------------||--------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1217 xxxx  165   331 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  176 xxxx  856  1240 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  144 xxxx  856  1240 xxxx xxxxx  xxxx xxxx xxxxx
           -----------|--------------||--------------||--------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  8.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     A    *    *     *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx  797 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 10.5 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *     *    B    *     *    *    *     *    *    *
ApproachDel:   xxxxxx            10.5          xxxxxx          xxxxxx
ApproachLOS:      *               B              *               *
```

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EXISTING AM              Thu Jun 19, 2003 17:21:30          Page 19-1
--------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Unsignalized Method (Base Volume Alternative)
**************************************************************************
Intersection #15 Hearst Avenue / Scenic Avenue
**************************************************************************
Average Delay (sec/veh):     0.3        Worst Case Level Of Service:     A
**************************************************************************
Approach:      North Bound       South Bound       East Bound        West Bound
Movement:    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign         Stop Sign        Uncontrolled       Uncontrolled
Rights:          Include           Include           Include            Include
Lanes:       0  0  0  0  0     0  0  0  0  1     0  0  2  0  0     0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    0    0    0     0    0   37     0  531    0     0  290   55
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 0    0    0     0    0   37     0  531    0     0  290   55
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:  0    0    0     0    0   40     0  571    0     0  312   59
Reduct Vol:  0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:  0    0    0     0    0   40     0  571    0     0  312   59
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx   6.9 xxxxx xxxx xxxxx  xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx  xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx   185 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx   831 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx   831 xxxx xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx   9.5 xxxxx xxxx xxxxx  xxxxx xxxx xxxxx
LOS by Move:   *    *     *     *    *      A    *    *     *     *    *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:   xxxxxx              9.5            xxxxxx           xxxxxx
ApproachLOS:     *                  A               *                *
```

```
EXISTING AM              Thu Jun 19, 2003 17:21:30          Page 20-1
--------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------
                     Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
**************************************************************************
Intersection #16 Hearst Avenue / Euclid Avenue
**************************************************************************
Cycle (sec):        65         Critical Vol./Cap. (X):        0.471
Loss Time (sec):    12 (Y+R =  3 sec) Average Delay (sec/veh):     15.4
Optimal Cycle:      58         Level Of Service:                B
**************************************************************************
Approach:      North Bound       South Bound       East Bound        West Bound
Movement:    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted         Permitted        Prot+Permit        Permitted
Rights:          Include           Include           Include            Include
Min. Green:   0    0    0    25   25   25     5   16   16    16   16   16
Lanes:       0  0  1! 0  0   0  0  1! 0  0    1  0  0  1  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00-9:00 AM
Base Vol:     2    0    2    47    1  151    75  448    1     1  276   10
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  2    0    2    47    1  151    75  448    1     1  276   10
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:   2    0    2    50    1  161    80  477    1     1  294   11
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  2    0    2    50    1  161    80  477    1     1  294   11
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   2    0    2    50    1  161    80  477    1     1  294   11
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.88 1.00 0.88  0.84 0.84 0.84  0.84 1.00 1.00  1.00 1.00 1.00
Lanes:      0.50 0.00 0.50  0.23 0.01 0.76  1.00 0.99 0.01  0.01 0.96 0.03
Final Sat.:  831    0  831   377    8 1212  1605 1896    4     7 1818   66
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00  0.13 0.13 0.13  0.05 0.25 0.25  0.16 0.16 0.16
Crit Moves:                     ****              ****               ****
Green/Cycle:0.40 0.40 0.40  0.40 0.40 0.40  0.51 0.51 0.51  0.31 0.31 0.31
Volume/Cap: 0.01 0.00 0.01  0.33 0.33 0.33  0.10 0.50 0.50  0.52 0.52 0.52
Delay/Veh:  11.7  0.0 11.7  14.9 14.9 14.9   9.7 12.3 12.3  21.9 21.9 21.9
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 11.7  0.0 11.7  14.9 14.9 14.9   9.7 12.3 12.3  21.9 21.9 21.9
DesignQueue:  0    0    0     1    0    4     2    9    0     0    8    0
**************************************************************************
```

```
-----------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
-----------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*****************************************************************************
Intersection #17 Hearst Avenue / Le Roy Avenue
*****************************************************************************
Average Delay (sec/veh):     3.3        Worst Case Level Of Service:       B
*****************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign       Stop Sign      Uncontrolled    Uncontrolled
Rights:          Include         Include          Include         Include
Lanes:       0  0  0  0  0   0  0  1! 0  0   0  1  0  0  0   0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    0    0    0    19    0   60    59  436    0     0  230    3
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 0    0    0    19    0   60    59  436    0     0  230    3
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:  0    0    0    20    0   64    63  464    0     0  245    3
Reduct Vol:  0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:  0    0    0    20    0   64    63  464    0     0  245    3
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx   6.2   4.1 xxxx xxxxx  xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx   3.3   2.2 xxxx xxxxx  xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  739 xxxx   246   248 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  353 xxxx   797  1330 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  340 xxxx   797  1330 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   7.8 xxxx xxxxx  xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *     *     A    *    *       *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx  603 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 11.9 xxxxx   7.8 xxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   *    *    *     *    B     *     A    *    *       *    *    *
ApproachDel:      xxxxxx            11.9           xxxxxx            xxxxxx
ApproachLOS:       *                 B              *                 *
```

```
-----------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
-----------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*****************************************************************************
Intersection #18 Hearst Avenue / Gayley Road / LaLoma Avenue
*****************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):       0.924
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   22.4
Optimal Cycle:      91                Level Of Service:           C
*****************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include          Include         Include
Min. Green:  18   18   18    18   18   18    17   17   17    17   17   17
Lanes:       0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00-9:00 AM
Base Vol:   274  212   95    12  274   21    28  161  304    21   33    5
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:274  212   95    12  274   21    28  161  304    21   33    5
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.92 0.92 0.92  0.92 0.92 0.92  0.92 0.92 0.92  0.92 0.92 0.92
PHF Volume: 298  230  103    13  298   23    30  175  330    23   36    5
Reduct Vol:  0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:298  230  103    13  298   23    30  175  330    23   36    5
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 298  230  103    13  298   23    30  175  330    23   36    5
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.67 0.67 0.67  0.97 0.97 0.97  0.90 0.90 0.90  0.82 0.82 0.85
Lanes:      0.48 0.36 0.16  0.04 0.89 0.07  0.06 0.32 0.62  0.39 0.61 1.00
Final Sat.: 599  463  208    72 1640  126    97  559 1056   603  947 1615
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.50 0.50 0.50  0.18 0.18 0.18  0.31 0.31 0.31  0.04 0.04 0.00
Crit Moves:      ****                            ****
Green/Cycle:0.55 0.55 0.55  0.55 0.55 0.55  0.40 0.40 0.40  0.40 0.40 0.40
Volume/Cap: 0.90 0.90 0.90  0.33 0.33 0.33  0.78 0.78 0.78  0.09 0.09 0.01
Delay/Veh: 29.5 29.5 29.5   8.8  8.8  8.8  23.9 23.9 23.9  11.2 11.2 10.5
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:29.5 29.5 29.5   8.8  8.8  8.8  23.9 23.9 23.9  11.2 11.2 10.5
DesignQueue: 5    4    2     0    5    0     1    4    8     0    1    0
*****************************************************************************
```

```
EXISTING AM               Thu Jun 19, 2003 17:21:30          Page 23-1       EXISTING AM               Thu Jun 19, 2003 17:21:30          Page 24-1
-------------------------------------------------------------------------    -------------------------------------------------------------------------
                        UC Berkeley LRDP EIR                                                         UC Berkeley LRDP EIR
                        Existing Conditions                                                          Existing Conditions
                          AM Peak Hour                                                                 AM Peak Hour
-------------------------------------------------------------------------    -------------------------------------------------------------------------
                Level Of Service Computation Report                                          Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)                         2000 HCM Operations Method (Base Volume Alternative)
*************************************************************************      *************************************************************************
Intersection #19 Berkeley Way / Oxford Street                                Intersection #20 University Avenue / Sixth Street
*************************************************************************      *************************************************************************
Cycle (sec):         70         Critical Vol./Cap. (X):       0.486          Cycle (sec):        114         Critical Vol./Cap. (X):       0.812
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    4.7        Loss Time (sec):     16 (Y+R =  5 sec) Average Delay (sec/veh):   83.6
Optimal Cycle:       46         Level Of Service:               A            Optimal Cycle:      114         Level Of Service:               F
*************************************************************************      *************************************************************************
Approach:      North Bound     South Bound      East Bound     West Bound    Approach:      North Bound     South Bound      East Bound     West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R    Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||------------| ------------|---------------||---------------||---------------||------------|
Control:        Permitted       Permitted       Permitted       Permitted    Control:       Prot+Permit      Permitted       Protected       Protected
Rights:          Include         Include         Include         Include      Rights:          Include         Include         Include         Include
Min. Green:  18   18   18   18   18   18   20   20   20   20   20   20        Min. Green:   6   23   23    0   23   23    6   15   15    6   15   15
Lanes:        1    0    1    1    0    1    1    0    0    0   1!   0    0     Lanes:        1    0    1    0    1    1    0    1    0    1    0    1    1    1    0    1    1    0
------------|---------------||---------------||---------------||------------| ------------|---------------||---------------||---------------||------------|
Volume Module:                                                               Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     39  717   40   30 1132   11   20   18   72   10    2   12       Base Vol:    211  111   19   73  290  325   89  932  333   40  931   21
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00      Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  39  717   40   30 1132   11   20   18   72   10    2   12       Initial Bse: 211  111   19   73  290  325   89  932  333   40  931   21
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00      User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89      PHF Adj:     0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume:   44  806   45   34 1272   12   22   20   81   11    2   13       PHF Volume:  224  118   20   78  309  346   95  991  354   43  990   22
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0        Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  44  806   45   34 1272   12   22   20   81   11    2   13       Reduced Vol: 224  118   20   78  309  346   95  991  354   43  990   22
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00      PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00      MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   44  806   45   34 1272   12   22   20   81   11    2   13       Final Vol.:  224  118   20   78  309  346   95  991  354   43  990   22
------------|---------------||---------------||---------------||------------| ------------|---------------||---------------||---------------||------------|
Saturation Flow Module:                                                      Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900      Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.20 0.94 0.94 0.33 0.95 0.95 0.87 0.87 0.87 0.86 0.87 0.87      Adjustment: 0.95 1.00 0.85 0.68 1.00 0.85 0.95 0.91 0.91 0.95 0.95 0.95
Lanes:      1.00 1.89 0.11 1.00 1.98 0.02 0.18 0.16 0.66 1.00 0.14 0.86      Lanes:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.47 0.53 1.00 1.96 0.04
Final Sat.:  378 3392  189  625 3572   35  302  272 1087 1625  236 1418      Final Sat.: 1805 1900 1615 1286 1900 1615 1805 2556  913 1805 3520   79
------------|---------------||---------------||---------------||------------| ------------|---------------||---------------||---------------||------------|
Capacity Analysis Module:                                                    Capacity Analysis Module:
Vol/Sat:    0.12 0.24 0.24 0.05 0.36 0.36 0.07 0.07 0.07 0.01 0.01 0.01      Vol/Sat:    0.12 0.06 0.01 0.06 0.16 0.21 0.05 0.39 0.39 0.02 0.28 0.28
Crit Moves:           ****      ****           ****                          Crit Moves: ****           ****      ****           ****
Green/Cycle: 0.64 0.64 0.64 0.64 0.64 0.64 0.31 0.31 0.31 0.31 0.31 0.31     Green/Cycle: 0.41 0.41 0.41 0.27 0.27 0.27 0.10 0.32 0.32 0.05 0.32 0.32
Volume/Cap: 0.18 0.37 0.37 0.08 0.55 0.55 0.24 0.24 0.24 0.02 0.03 0.03      Volume/Cap: 0.30 0.15 0.03 0.22 0.60 0.79 0.54 1.23 1.23 0.45 0.89 0.89
Delay/Veh:   3.9  3.1  3.1  2.6  4.1  4.1 19.3 19.3 19.3 17.0 17.1 17.1      Delay/Veh:  23.5 21.4 20.0 33.6 41.1 51.8 60.8  150 149.9 66.9 47.8 47.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00      User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  3.9  3.1  3.1  2.6  4.1  4.1 19.3 19.3 19.3 17.0 17.1 17.1      AdjDel/Veh: 23.5 21.4 20.0 33.6 41.1 51.8 60.8  150 149.9 66.9 47.8 47.8
DesignQueue:   1   12    1    0   19    0    1    1    2    0    0    0       DesignQueue:   9    4    1    4   15   17    5   46   17    3   45    1
*************************************************************************      *************************************************************************




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EXISTING AM                Thu Jun 19, 2003 17:21:30           Page 25-1        EXISTING AM                Thu Jun 19, 2003 17:21:31           Page 26-1
--------------------------------------------------------------------------      --------------------------------------------------------------------------
                            UC Berkeley LRDP EIR                                                             UC Berkeley LRDP EIR
                            Existing Conditions                                                             Existing Conditions
                              AM Peak Hour                                                                     AM Peak Hour
--------------------------------------------------------------------------      --------------------------------------------------------------------------
                    Level Of Service Computation Report                                              Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)                             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************  ********************************************************************************
Intersection #21 University Avenue / San Pablo Avenue                           Intersection #22 University Avenue / Martin Luther King Way
********************************************************************************  ********************************************************************************
Cycle (sec):        114          Critical Vol./Cap. (X):        0.822           Cycle (sec):         65          Critical Vol./Cap. (X):        0.789
Loss Time (sec):     16 (Y+R =  5 sec) Average Delay (sec/veh):  115.4          Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):   20.7
Optimal Cycle:       97          Level Of Service:                  F           Optimal Cycle:       66          Level Of Service:                  C
********************************************************************************  ********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound      Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R   Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------| ------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected    Control:      Prot+Permit       Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include     Rights:          Include          Include          Include          Include
Min. Green:    5   21   21     5   21   21     5   22   22     5   22   22       Min. Green:    5   23   23    23   23   23    17   17   17    17   17   17
Lanes:         1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0      Lanes:         1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
------------|---------------||---------------||---------------||---------------| ------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM                         Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     100  457   75   190  837   83    56  957   49    63  644   93       Base Vol:     178  568   80    57  833   87    81  703  185    41  477   47
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00       Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  100  457   75   190  837   83    56  957   49    63  644   93       Initial Bse:  178  568   80    57  833   87    81  703  185    41  477   47
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00       User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.89 0.89 0.89  0.89 0.89 0.89  0.89 0.89 0.89  0.89 0.89 0.89       PHF Adj:     0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:   112  513   84   213  940   93    63 1075   55    71  724  104       PHF Volume:   191  611   86    61  896   94    87  756  199    44  513   51
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0        Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  112  513   84   213  940   93    63 1075   55    71  724  104       Reduced Vol:  191  611   86    61  896   94    87  756  199    44  513   51
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00       PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00       MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   112  513   84   213  940   93    63 1075   55    71  724  104       Final Vol.:   191  611   86    61  896   94    87  756  199    44  513   51
------------|---------------||---------------||---------------||---------------| ------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:                                                         Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900       Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.93 0.93  0.95 0.94 0.94  0.95 0.94 0.94  0.95 0.93 0.93       Adjustment:  0.35 0.93 0.93  0.32 0.94 0.94  0.36 0.92 0.92  0.17 0.94 0.94
Lanes:       1.00 1.72 0.28  1.00 1.82 0.18  1.00 1.90 0.10  1.00 1.75 0.25       Lanes:       1.00 1.75 0.25  1.00 1.81 0.19  1.00 1.58 0.42  1.00 1.82 0.18
Final Sat.:  1805 3036  498  1805 3242  321  1805 3410  175  1805 3095  447       Final Sat.:   658 3107  438   599 3223  337   676 2769  729   331 3243  320
------------|---------------||---------------||---------------||---------------| ------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:                                                       Capacity Analysis Module:
Vol/Sat:     0.06 0.17 0.17  0.12 0.29 0.29  0.03 0.32 0.32  0.04 0.23 0.23       Vol/Sat:     0.29 0.20 0.20  0.10 0.28 0.28  0.13 0.27 0.27  0.13 0.16 0.16
Crit Moves:  ****              ****              ****              ****           Crit Moves:  ****              ****              ****
Green/Cycle: 0.17 0.31 0.31  0.17 0.31 0.31  0.05 0.22 0.22  0.06 0.22 0.22       Green/Cycle: 0.43 0.43 0.43  0.34 0.34 0.34  0.35 0.35 0.35  0.35 0.35 0.35
Volume/Cap:  0.37 0.55 0.55  0.71 0.95 0.95  0.66 1.44 1.44  0.64 1.07 1.07       Volume/Cap:  0.68 0.46 0.46  0.30 0.82 0.82  0.36 0.77 0.77  0.38 0.45 0.45
Delay/Veh:   45.7 35.0 35.0  58.2 55.4 55.4  84.0  249 248.8 77.2 95.9 95.9       Delay/Veh:   25.8 12.3 12.3  18.9 25.1 25.1  19.8 23.4 23.4  24.7 17.3 17.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00       User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  45.7 35.0 35.0  58.2 55.4 55.4  84.0  249 248.8 77.2 95.9 95.9       AdjDel/Veh:  25.8 12.3 12.3  18.9 25.1 25.1  19.8 23.4 23.4  24.7 17.3 17.3
DesignQueue:    6   23    4    12   44    4     4   57    3     4   38    5        DesignQueue:    6   13    2     1   23    2     2   19    5     1   12    1
********************************************************************************  ********************************************************************************




  Traffix 7.5.0715 (c) 2002 Dowling Assoc. Licensed to FEHR & PEERS,  LAFAYETTE    Traffix 7.5.0715 (c) 2002 Dowling Assoc. Licensed to FEHR & PEERS,  LAFAYETTE
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--------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
**************************************************************************
Intersection #23 University Avenue / Milvia Street
**************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):         0.502
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    10.8
Optimal Cycle:       49          Level Of Service:                  B
**************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  - R    L  -  T  - R    L  -  T  - R    L  -  T  - R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  21   21   21    21   21   21    20   20   20    20   20   20
Lanes:        1    0  0 1 0   0    0 1! 0 0   0    1  0 1 0   0    1  0 1 0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    100   98   21     6  203   63    37  656  137    18  406   15
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 100   98   21     6  203   63    37  656  137    18  406   15
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.92 0.92 0.92  0.92 0.92 0.92  0.92 0.92 0.92  0.92 0.92 0.92
PHF Volume:  109  107   23     7  221   68    40  713  149    20  441   16
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 109  107   23     7  221   68    40  713  149    20  441   16
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  109  107   23     7  221   68    40  713  149    20  441   16
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.69 0.97 0.97  0.97 0.97 0.97  0.85 0.85 0.85  0.86 0.86 0.86
Lanes:      1.00 0.82 0.18  0.02 0.75 0.23  0.09 1.58 0.33  0.08 1.85 0.07
Final Sat.: 1303 1524  327    40 1369  425   144 2559  534   134 3033  112
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.08 0.07 0.07  0.16 0.16 0.16  0.28 0.28 0.28  0.15 0.15 0.15
Crit Moves:            ****                  ****
Green/Cycle:0.38 0.38 0.38  0.38 0.38 0.38  0.56 0.56 0.56  0.56 0.56 0.56
Volume/Cap: 0.22 0.18 0.18  0.42 0.42 0.42  0.50 0.50 0.50  0.26 0.26 0.26
Delay/Veh:  14.4 13.8 13.8  16.5 16.5 16.5   9.6  9.6  9.6   7.7  7.7  7.7
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 14.4 13.8 13.8  16.5 16.5 16.5   9.6  9.6  9.6   7.7  7.7  7.7
DesignQueue:   2    2    1     0    5    2     1   12    2     0    7    0
**************************************************************************
```

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--------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
**************************************************************************
Intersection #24 University Avenue / SB Shattuck Avenue
**************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):         0.459
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    19.7
Optimal Cycle:       40          Level Of Service:                  B
**************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  - R    L  -  T  - R    L  -  T  - R    L  -  T  - R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:   0    0    0    16   16   16    16   16   16    16   16   16
Lanes:        0    0  0 0 0   0    1  1 1 0   1    0  1 1 0   0    1  0 1 1
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0    49  767  105   115  401  162    26  356  314
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0    49  767  105   115  401  162    26  356  314
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:    0    0    0    52  816  112   122  427  172    28  379  334
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0    0    52  816  112   122  427  172    28  379  334
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0    0    52  816  112   122  427  172    28  379  334
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  0.79 0.79 0.79  0.45 0.82 0.82  0.72 0.72 0.72
Lanes:      0.00 0.00 0.00  0.16 2.50 0.34  1.00 1.42 0.58  0.11 1.54 1.35
Final Sat.:    0    0    0   240 3757  514   846 2215  895   154 2112 1863
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00  0.22 0.22 0.22  0.14 0.19 0.19  0.18 0.18 0.18
Crit Moves:            ****                  ****
Green/Cycle:0.00 0.00 0.00  0.36 0.36 0.36  0.30 0.30 0.30  0.30 0.53 0.53
Volume/Cap: 0.00 0.00 0.00  0.60 0.60 0.60  0.48 0.64 0.64  0.60 0.34 0.34
Delay/Veh:   0.0  0.0  0.0  21.3 21.3 21.3  27.9 26.1 26.1  24.5 10.5 10.5
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  21.3 21.3 21.3  27.9 26.1 26.1  24.5 10.5 10.5
DesignQueue:   0    0    0     1   23    3     4   13    5     1    8    7
**************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #25 University Avenue / NB Shattuck Avenue
*******************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):         0.335
Loss Time (sec):    15 (Y+R =  4 sec) Average Delay (sec/veh):    15.7
Optimal Cycle:      47          Level Of Service:                   B
*******************************************************************************
Approach:      North Bound    South Bound     East Bound     West Bound
Movement:      L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected       Protected       Protected       Protected
Rights:          Include         Include         Include         Include
Min. Green:   19    0   19    0    0    0    0   13    0    0   13    0
Lanes:         2  0  1! 0  1   0  0  0  0  0   0  0  2  0  0   0  0  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     458    0  168    0    0    0    0  444    0    0  235    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  458    0  168    0    0    0    0  444    0    0  235    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume:   492    0  181    0    0    0    0  477    0    0  253    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  492    0  181    0    0    0    0  477    0    0  253    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   492    0  181    0    0    0    0  477    0    0  253    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.81 1.00 0.83 1.00 1.00 1.00 1.00 0.86 1.00 1.00 0.86 1.00
Lanes:       2.65 0.00 1.35 0.00 0.00 0.00 0.00 2.00 0.00 0.00 2.00 0.00
Final Sat.:  4075    0 2135    0    0    0    0 3249    0    0 3249    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.12 0.00 0.08 0.00 0.00 0.00 0.00 0.15 0.00 0.00 0.08 0.00
Crit Moves:  ****                              ****           ****
Green/Cycle: 0.36 0.00 0.36 0.00 0.00 0.00 0.00 0.44 0.00 0.00 0.44 0.00
Volume/Cap:  0.34 0.00 0.23 0.00 0.00 0.00 0.00 0.33 0.00 0.00 0.18 0.00
Delay/Veh:   17.9  0.0 17.0  0.0  0.0  0.0  0.0 14.4  0.0  0.0 13.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  17.9  0.0 17.0  0.0  0.0  0.0  0.0 14.4  0.0  0.0 13.0  0.0
DesignQueue:   13    0    5    0    0    0    0   11    0    0    6    0
*******************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #26 University Avenue / Oxford Street
*******************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):         0.800
Loss Time (sec):    12 (Y+R =  4 sec) Average Delay (sec/veh):    29.0
Optimal Cycle:      68          Level Of Service:                   C
*******************************************************************************
Approach:      North Bound    South Bound     East Bound     West Bound
Movement:      L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Prot+Permit      Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:    5   18   18    5   18   18   18   18   18   18   18   18
Lanes:         1  0  1  1  0   1  0  1  1  0   1  1  0  0  1   0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     147  487    4   41 1101   77  300   38  217    6   12   23
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  147  487    4   41 1101   77  300   38  217    6   12   23
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume:   162  535    4   45 1210   85  330   42  238    7   13   25
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  162  535    4   45 1210   85  330   42  238    7   13   25
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   162  535    4   45 1210   85  330   42  238    7   13   25
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.86 0.85 0.85 0.37 0.85 0.85 0.65 0.65 0.77 0.81 0.81 0.81
Lanes:       1.00 1.98 0.02 1.00 1.87 0.13 1.78 0.22 1.00 0.15 0.29 0.56
Final Sat.:  1625 3219   26  710 3006  210 2189  277 1454  225  450  863
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.17 0.17 0.06 0.40 0.40 0.15 0.15 0.16 0.03 0.03 0.03
Crit Moves:  ****                 ****           ****
Green/Cycle: 0.41 0.41 0.41 0.41 0.41 0.41 0.30 0.30 0.30 0.30 0.30 0.30
Volume/Cap:  0.24 0.41 0.41 0.16 0.99 0.99 0.50 0.50 0.55 0.10 0.10 0.10
Delay/Veh:   13.5 14.6 14.6 13.3 41.0 41.0 21.2 21.2 23.9 16.8 16.8 16.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  13.5 14.6 14.6 13.3 41.0 41.0 21.2 21.2 23.9 16.8 16.8 16.8
DesignQueue:    4   12    0    1   28    2    9    1    6    0    0    1
*******************************************************************************
```

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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #27 Univeristy Drive (East Gate)  / Gayley Road
********************************************************************************
Average Delay (sec/veh):     1.9      Worst Case Level Of Service:        C
********************************************************************************
Approach:     North Bound      South Bound       East Bound       West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Uncontrolled     Uncontrolled       Stop Sign        Stop Sign
Rights:         Include          Include           Include          Include
Lanes:      1  0  1  0  0    0  0  0  1  0    1  0  0  0  1    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    69  476    0      0  543   75     53    0   73      0    0    0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse: 69  476    0      0  543   75     53    0   73      0    0    0
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95
PHF Volume:  73  501    0      0  572   79     56    0   77      0    0    0
Reduct Vol:   0    0    0      0    0    0      0    0    0      0    0    0
Final Vol.:  73  501    0      0  572   79     56    0   77      0    0    0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx    6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx    3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 651 xxxx xxxxx  xxxx xxxx xxxxx  1257 xxxx    611 xxxxx xxxx xxxxx
Potent Cap.: 945 xxxx xxxxx  xxxx xxxx xxxxx   191 xxxx    497 xxxxx xxxx xxxxx
Move Cap.:   945 xxxx xxxxx  xxxx xxxx xxxxx   179 xxxx    497 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 9.1 xxxx xxxxx xxxxx xxxx xxxxx  33.9 xxxx   13.6 xxxxx xxxx xxxxx
LOS by Move:  A   *    *      *    *    *      D    *     B    *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx    0 xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *      *    *    *      *    *    *      *    *    *
ApproachDel:   xxxxxx           xxxxxx           22.1           xxxxxx
ApproachLOS:      *               *               C               *
```

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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #28 Addison Street / Oxford Street
********************************************************************************
Average Delay (sec/veh):     0.3      Worst Case Level Of Service:        B
********************************************************************************
Approach:     North Bound      South Bound       East Bound       West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Uncontrolled     Uncontrolled       Stop Sign        Stop Sign
Rights:         Include          Include           Include          Include
Lanes:      1  0  2  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    54  647    0      0 1165   61      4    0   31      0    0    0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse: 54  647    0      0 1165   61      4    0   31      0    0    0
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91   0.91 0.91 0.91   0.91 0.91 0.91   0.91 0.91 0.91
PHF Volume:  59  711    0      0 1280   67      4    0   34      0    0    0
Reduct Vol:   0    0    0      0    0    0      0    0    0      0    0    0
Final Vol.:  59  711    0      0 1280   67      4    0   34      0    0    0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8 xxxx    6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx    3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 812 xxxx xxxxx  xxxx xxxx xxxxx  1392 xxxx      0 xxxx xxxx xxxxx
Potent Cap.: 622 xxxx xxxxx  xxxx xxxx xxxxx   102 xxxx      0 xxxx xxxx xxxxx
Move Cap.:   622 xxxx xxxxx  xxxx xxxx xxxxx    95 xxxx      0 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 11.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  B   *    *      *    *    *      *    *    *      *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  830 xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  9.5 xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *      *    *    *      *    A    *      *    *    *
ApproachDel:   xxxxxx           xxxxxx           9.5            xxxxxx
ApproachLOS:      *               *               A               *
```

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--------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                             Existing Conditions
                               AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #29 Center Street / SB Shattuck Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.348
Loss Time (sec):    12 (Y+R =  9 sec) Average Delay (sec/veh):  14.9
Optimal Cycle:      65          Level Of Service:                 B
********************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0    20   20   20    0    22   22   33   33    0
Lanes:        0    0    0    0    0    1    1    1    0    0    0    1    0    0    1    0    0    0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0    0    0    15  779   71    0    69   51   17  102    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0    0    15  779   71    0    69   51   17  102    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume:   0    0    0    16  838   76    0    74   55   18  110    0
Reduct Vol:   0    0    0     0    0    0    0     0    0    0    0    0
Reduced Vol:  0    0    0    16  838   76    0    74   55   18  110    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0    0    0    16  838   76    0    74   55   18  110    0
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.80 0.80 0.80 1.00 0.85 0.85 0.86 0.86 1.00
Lanes:      0.00 0.00 0.00 0.05 2.70 0.25 0.00 0.58 0.42 0.14 0.86 0.00
Final Sat.:   0    0    0    79 4104  374    0   927  685  233 1398    0
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.20 0.20 0.20 0.00 0.08 0.08 0.08 0.08 0.00
Crit Moves:                 ****             ****
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.34 0.34 0.51 0.51 0.00
Volume/Cap: 0.00 0.00 0.00 0.66 0.66 0.66 0.00 0.24 0.24 0.15 0.15 0.00
Delay/Veh:   0.0  0.0  0.0 16.3 16.3 16.3  0.0 16.5 16.5  3.1  3.1  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 16.3 16.3 16.3  0.0 16.5 16.5  3.1  3.1  0.0
DesignQueue:  0    0    0    0   22    2    0    2    1    0    2    0
********************************************************************************
```
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--------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                             Existing Conditions
                               AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #30 Center Street / NB Shattuck Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.285
Loss Time (sec):     8 (Y+R =  9 sec) Average Delay (sec/veh):   4.6
Optimal Cycle:      60          Level Of Service:                 A
********************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  30   30   30    0    0    0    22   22    0    0    22   22
Lanes:        0    1    1    1    0    0    0    0    0    0    1    0    0    0    0    0    1    0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    42  616   51    0    0    0    26   56    0    0    77   26
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 42  616   51    0    0    0    26   56    0    0    77   26
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
PHF Volume:  48  708   59    0    0    0    30   64    0    0    89   30
Reduct Vol:   0    0    0    0    0    0     0    0    0    0    0    0
Reduced Vol: 48  708   59    0    0    0    30   64    0    0    89   30
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  48  708   59    0    0    0    30   64    0    0    89   30
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.80 0.80 0.80 1.00 1.00 1.00 0.80 0.80 1.00 1.00 0.87 0.87
Lanes:      0.18 2.61 0.21 0.00 0.00 0.00 0.32 0.68 0.00 0.00 0.75 0.25
Final Sat.: 270 3967  328    0    0    0   479 1032    0    0 1235  417
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.18 0.18 0.18 0.00 0.00 0.00 0.06 0.06 0.00 0.00 0.07 0.07
Crit Moves:  ****                                               ****
Green/Cycle: 0.54 0.54 0.54 0.00 0.00 0.00 0.34 0.34 0.00 0.00 0.34 0.34
Volume/Cap: 0.33 0.33 0.33 0.00 0.00 0.00 0.18 0.18 0.00 0.00 0.21 0.21
Delay/Veh:   2.2  2.2  2.2  0.0  0.0  0.0 10.8 10.8  0.0  0.0 16.2 16.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  2.2  2.2  2.2  0.0  0.0  0.0 10.8 10.8  0.0  0.0 16.2 16.2
DesignQueue:  1   12    1    0    0    0    1    2    0    0    2    1
********************************************************************************
```
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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
******************************************************************************
Intersection #31 Center Street / Oxford Street
******************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.516
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    8.3
Optimal Cycle:      46          Level Of Service:                A
******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  19   19   19    19   19   19    19   19   19    19   19   19
Lanes:      1  0  1  1  0   1  0  1  1  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     50  663   42    11 1145   39    26   10   43    19    6    8
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  50  663   42    11 1145   39    26   10   43    19    6    8
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:   54  713   45    12 1231   42    28   11   46    20    6    9
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  54  713   45    12 1231   42    28   11   46    20    6    9
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   54  713   45    12 1231   42    28   11   46    20    6    9
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.18 0.85 0.85  0.32 0.85 0.85  0.77 0.77 0.77  0.76 0.76 0.76
Lanes:      1.00 1.88 0.12  1.00 1.93 0.07  0.33 0.13 0.54  0.58 0.18 0.24
Final Sat.:  340 3028  192   612 3126  106   479  184  793   826  261  348
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.24 0.24  0.02 0.39 0.39  0.06 0.06 0.06  0.02 0.02 0.02
Crit Moves:           ****            ****       ****
Green/Cycle: 0.63 0.63 0.63  0.63 0.63 0.63  0.31 0.31 0.31  0.31 0.31 0.31
Volume/Cap: 0.25 0.37 0.37  0.03 0.62 0.62  0.19 0.19 0.19  0.08 0.08 0.08
Delay/Veh:   8.0  6.3  6.3   4.7  8.8  8.8  17.5 17.5 17.5  16.3 16.3 16.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  8.0  6.3  6.3   4.7  8.8  8.8  17.5 17.5 17.5  16.3 16.3 16.3
DesignQueue:   1   10    1     0   18    1     1    0    1     1    0    0
******************************************************************************
```

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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
******************************************************************************
Intersection #32 Stadium Rim Road / Gayley Road
******************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):        0.911
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):   26.2
Optimal Cycle:       0          Level Of Service:                D
******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:      0  0  0  1  0   0  1  0  0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  386   19   128  471    0    12    5   14    18    1  118
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  386   19   128  471    0    12    5   14    18    1  118
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:    0  415   20   138  506    0    13    5   15    19    1  127
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0  415   20   138  506    0    13    5   15    19    1  127
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  415   20   138  506    0    13    5   15    19    1  127
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.95 0.05  0.21 0.79 0.00  0.39 0.16 0.45  0.13 0.01 0.86
Final Sat.:    0  641   32   151  556    0   190   79  222    74    4  488
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx 0.65 0.65  0.91 0.91 xxxx  0.07 0.07 0.07  0.26 0.26 0.26
Crit Moves:      ****            ****            ****            ****
Delay/Veh:   0.0 16.8 16.8  36.9 36.9  0.0  10.0 10.0 10.0  10.8 10.8 10.8
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 16.8 16.8  36.9 36.9  0.0  10.0 10.0 10.0  10.8 10.8 10.8
LOS by Move:   *    C    C     E    E    *     A    A    A     B    B    B
ApproachDel:      16.8            36.9            10.0            10.8
Delay Adj:        1.00            1.00            1.00            1.00
ApprAdjDel:       16.8            36.9            10.0            10.8
LOS by Appr:       C                E               A               B
******************************************************************************
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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour

                    Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #33 Allston Way / Oxford Street
****
Average Delay (sec/veh):   4.4   Worst Case Level Of Service: D
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Uncontrolled   Uncontrolled   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Lanes: 0 1 1 0 0   0 1 0 1 0   1 0 0 0 1   0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 17 798   0   59 1111   34   16   0   33   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 17 798   0   59 1111   34   16   0   33   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 18 858   0   63 1195   37   17   0   35   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.: 18 858   0   63 1195   37   17   0   35   0   0   0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx   4.1 xxxx xxxxx   6.8 xxxx   6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1129 xxxx xxxxx   858 xxxx xxxxx 1735 xxxx   480 xxxx xxxx xxxxx
Potent Cap.: 594 xxxx xxxxx   791 xxxx xxxxx   76 xxxx   510 xxxx xxxx xxxxx
Move Cap.:   594 xxxx xxxxx   791 xxxx xxxxx   70 xxxx   510 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 11.3 xxxx xxxxx   9.9 xxxx xxxxx 73.0 xxxx 12.6 xxxxx xxxx xxxxx
LOS by Move: B   *   *   A   *   *   F   *   B   *   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel: 11.3 xxxx xxxxx   9.9 xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: B   *   *   A   *   *   *   *   *   *   *   *
ApproachDel: xxxxxx   xxxxxx   32.3   xxxxxx
ApproachLOS: *   *   D   *

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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour

                    Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #34 Kittridge Street / Oxford Street / Fulton Street
****
Average Delay (sec/veh):   2.5   Worst Case Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Uncontrolled   Uncontrolled   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Lanes: 0 1 1 0 0   0 0 1 1 0   0 0 1! 0 0   0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 13 801   0   0 1122   18   6   0   23   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 13 801   0   0 1122   18   6   0   23   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 14 861   0   0 1206   19   6   0   25   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.: 14 861   0   0 1206   19   6   0   25   0   0   0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8 xxxx   6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1079 xxxx xxxxx xxxx xxxx xxxxx 1565 xxxx   418 xxxx xxxx xxxxx
Potent Cap.: 607 xxxx xxxxx xxxx xxxx xxxxx   97 xxxx   547 xxxx xxxx xxxxx
Move Cap.:   607 xxxx xxxxx xxxx xxxx xxxxx   95 xxxx   547 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 11.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: B   *   *   *   *   *   *   *   *   *   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 276 xxxxx xxxx xxxx xxxxx
Shrd StpDel: 11.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 19.7 xxxxx xxxxx xxxx xxxxx
Shared LOS: B   *   *   *   *   *   *   C   *   *   *   *
ApproachDel: xxxxxx   xxxxxx   19.7   xxxxxx
ApproachLOS: *   *   C   *

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #35 Stadium Rim Road / Centennial Drive
********************************************************************************
Cycle (sec):        100         Critical Vol./Cap. (X):        0.325
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):     9.2
Optimal Cycle:        0         Level Of Service:                A
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0 0  0  1 0    0  1  0 0 0    0 0  0  0 0    0 0  1! 0 0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:       0   70  160   94   22    0    0    0    0  114    0   71
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    0   70  160   94   22    0    0    0    0  114    0   71
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume:     0   82  188  111   26    0    0    0    0  134    0   84
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    0   82  188  111   26    0    0    0    0  134    0   84
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:     0   82  188  111   26    0    0    0    0  134    0   84
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.00 0.30 0.70 0.81 0.19 0.00 0.00 0.00 0.00 0.61 0.01 0.38
Final Sat.:     0  253  579  575  135    0    0    0    0  452    0  282
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     xxxx 0.33 0.33 0.19 0.19 xxxx xxxx xxxx xxxx 0.30 0.00 0.30
Crit Moves:        ****      ****                          ****
Delay/Veh:    0.0  9.0  9.0  8.9  8.9  0.0  0.0  0.0  0.0  9.5  9.5  9.5
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   0.0  9.0  9.0  8.9  8.9  0.0  0.0  0.0  0.0  9.5  9.5  9.5
LOS by Move:   *    A    A    A    A    *    *    *    *    A    A    A
ApproachDel:       9.0            8.9            xxxxxx           9.5
Delay Adj:         1.00           1.00           xxxxx            1.00
ApprAdjDel:        9.0            8.9            xxxxxx           9.5
LOS by Appr:       A              A              *                A
********************************************************************************
```

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #36 Bancroft Way / Shattuck Avenue
********************************************************************************
Cycle (sec):         65         Critical Vol./Cap. (X):        0.457
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     8.6
Optimal Cycle:       42         Level Of Service:                A
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18    0    0   18   18    0    0    0   16   16   16
Lanes:        1 0  2  0 0    0  0  1  1 0    0 0  1! 0 0    1 0  0  1 0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      29  912    0    0  788   12    1    0   62  116   51   71
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   29  912    0    0  788   12    1    0   62  116   51   71
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume:    31  981    0    0  847   13    1    0   67  125   55   76
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   31  981    0    0  847   13    1    0   67  125   55   76
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    31  981    0    0  847   13    1    0   67  125   55   76
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.29 0.86 1.00 1.00 0.85 0.85 0.78 1.00 0.78 0.67 0.82 0.82
Lanes:       1.00 2.00 0.00 0.00 1.97 0.03 0.02 0.00 0.98 1.00 0.42 0.58
Final Sat.:   559 3249    0    0 3194   49   24    0 1459 1264  653  909
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.30 0.00 0.00 0.27 0.27 0.05 0.00 0.05 0.10 0.08 0.08
Crit Moves:        ****                                    ****
Green/Cycle: 0.62 0.62 0.00 0.00 0.62 0.62 0.00 0.00 0.00 0.30 0.30 0.30
Volume/Cap:  0.09 0.49 0.00 0.00 0.43 0.43 xxxx 0.00 xxxx 0.33 0.28 0.28
Delay/Veh:    5.6  7.7  0.0  0.0  7.2  7.2  0.0  0.0  0.0 20.0 18.9 18.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   5.6  7.7  0.0  0.0  7.2  7.2  0.0  0.0  0.0 20.0 18.9 18.9
DesignQueue:    0   14    0    0   12    0    0    0    2    3    1    2
********************************************************************************
```

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-------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
                2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #37 Bancroft Way / Fulton Street
********************************************************************************
Cycle (sec):          65        Critical Vol./Cap. (X):        0.394
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):      6.3
Optimal Cycle:        49        Level Of Service:                 A
********************************************************************************
Approach:        North Bound       South Bound       East Bound       West Bound
Movement:      L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted         Permitted         Permitted         Permitted
Rights:          Include           Include           Include           Ignore
Min. Green:   17   17    0     0   17   17     0    0    0    24   24   24
Lanes:         0    1    1     0    0    0     2    1    0     0    0    0     0    1    1    0    1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     13  146    0     0 1071   79     0    0    0    84  173  650
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  13  146    0     0 1071   79     0    0    0    84  173  650
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:    0.89 0.89 0.89  0.89 0.89 0.89  0.89 0.89 0.89  0.89 0.89 0.00
PHF Volume:   15  164    0     0 1203   89     0    0    0    94  194    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  15  164    0     0 1203   89     0    0    0    94  194    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
Final Vol.:   15  164    0     0 1203   89     0    0    0    94  194    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.82 0.82 1.00  1.00 0.90 0.90  1.00 1.00 1.00  0.81 0.81 1.00
Lanes:      0.16 1.84 0.00  0.00 2.79 0.21  0.00 0.00 0.00  0.65 1.35 1.00
Final Sat.:  256 2877    0     0 4782  353     0    0    0  1003 2066 1900
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.06 0.06 0.00  0.00 0.25 0.25  0.00 0.00 0.00  0.09 0.09 0.00
Crit Moves:                ****                                ****
Green/Cycle: 0.60 0.60 0.00  0.00 0.60 0.60  0.00 0.00 0.00  0.34 0.34 0.34
Volume/Cap: 0.10 0.10 0.00  0.00 0.42 0.42  0.00 0.00 0.00  0.28 0.28 0.00
Delay/Veh:   3.3  3.3  0.0   0.0  4.4  4.4   0.0  0.0  0.0  16.4 16.4  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  3.3  3.3  0.0   0.0  4.4  4.4   0.0  0.0  0.0  16.4 16.4  0.0
DesignQueue:   0    2    0     0   18    1     0    0    0     2    5    0
********************************************************************************
```

```
-------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
                2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #38 Bancroft Way / Ellsworth Street
********************************************************************************
Average Delay (sec/veh):      3.2        Worst Case Level Of Service:       C
********************************************************************************
Approach:     North Bound       South Bound        East Bound        West Bound
Movement:    L  -  T  -  R     L  -  T  -  R      L  -  T  -  R      L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign         Stop Sign        Uncontrolled       Uncontrolled
Rights:          Include           Include           Include           Include
Lanes:        1  1  0  0  0   0  0  0  0  1    0  0  0  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    241   60    0     0    0   11     0    0    0     0  674   39
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 241   60    0     0    0   11     0    0    0     0  674   39
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:  265   66    0     0    0   12     0    0    0     0  741   43
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:  265   66    0     0    0   12     0    0    0     0  741   43
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5 xxxxx xxxxx xxxx   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0 xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  370  784 xxxxx  xxxx xxxx   392  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  590  328 xxxxx  xxxx xxxx   661  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    579  328 xxxxx  xxxx xxxx   661  xxxx xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 13.0 xxxx xxxxx xxxxx xxxx  10.5 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  B    *    *     *    *      B    *    *    *     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT     LT - LTR - RT     LT - LTR - RT
Shared Cap.:  461 xxxxx xxxxx   xxxx xxxx xxxxx   xxxx xxxxx xxxxx   xxxx xxxxx xxxxx
Shrd StpDel: 18.6 xxxxx xxxxx xxxx xxxxx xxxxx   xxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   C    *    *     *    *     *    *    *    *     *    *    *
ApproachDel:      16.4            10.5           xxxxxx             xxxxxx
ApproachLOS:       C               B                *                 *
```

UC Berkeley LRDP EIR
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #39 Bancroft Way / Dana Street
****
Average Delay (sec/veh):   0.0   Worst Case Level Of Service: A
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Stop Sign   Stop Sign   Uncontrolled   Uncontrolled
Rights: Include   Include   Include   Include
Lanes: 0 0 0 0 0   0 0 0 0 0   0 0 0 0 0   0 1 2 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 0   0   0   0   0   0   0   0   0   145 721   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   0   0   0   0   0   0   0   0   145 721   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 0   0   0   0   0   0   0   0   0   154 767   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.:   0   0   0   0   0   0   0   0   0   154 767   0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx   0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx   0 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx   0 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
LOS by Move: *   *   *   *   *   *   *   *   *   A   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
Shared LOS: *   *   *   *   *   *   *   *   *   A   *   *
ApproachDel: xxxxxx   xxxxxx   xxxxxx   xxxxxx
ApproachLOS: *   *   *   *

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UC Berkeley LRDP EIR
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #40 Bancroft Way / Telegraph Avenue
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.258
Loss Time (sec):   8 (Y+R = 23 sec) Average Delay (sec/veh):   20.4
Optimal Cycle: 46   Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Protected   Protected   Protected   Protected
Rights: Include   Include   Include   Include
Min. Green: 15   0   0   0   0   0   0   0   0   0   23   0
Lanes: 2   0 0 0 0   0 0 0 0 0   0 0 0 0 0   0 0 3 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 427   0   0   0   0   0   0   0   0   0 460   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 427   0   0   0   0   0   0   0   0   0 460   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 459   0   0   0   0   0   0   0   0   0 495   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 459   0   0   0   0   0   0   0   0   0 495   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 459   0   0   0   0   0   0   0   0   0 495   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.91 1.00
Lanes: 2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.00 0.00
Final Sat.: 3502   0   0   0   0   0   0   0   0   0 5187   0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.13 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.10 0.00
Crit Moves: ****   ****
Green/Cycle:0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.35 0.00
Volume/Cap: 0.57 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.27 0.00
Delay/Veh: 25.8 0.0 0.0   0.0 0.0 0.0   0.0 0.0 0.0   0.0 15.4 0.0
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 25.8 0.0 0.0   0.0 0.0 0.0   0.0 0.0 0.0   0.0 15.4 0.0
DesignQueue: 13   0   0   0   0   0   0   0   0   0   12   0
****

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```
EXISTING AM              Thu Jun 19, 2003 17:21:31         Page 45-1      EXISTING AM              Thu Jun 19, 2003 17:21:31         Page 46-1
-------------------------------------------------------------------      -------------------------------------------------------------------
                         UC Berkeley LRDP EIR                                                     UC Berkeley LRDP EIR
                         Existing Conditions                                                      Existing Conditions
                          AM Peak Hour                                                              AM Peak Hour
-------------------------------------------------------------------      -------------------------------------------------------------------
                   Level Of Service Computation Report                                       Level Of Service Computation Report
           2000 HCM 4-Way Stop Method (Base Volume Alternative)                      2000 HCM 4-Way Stop Method (Base Volume Alternative)
************************************************************************   ************************************************************************
Intersection #41 Bancroft Way / Bowditch Street                          Intersection #42 Bancroft Way / College Avenue
************************************************************************   ************************************************************************
Cycle (sec):        100         Critical Vol./Cap. (X):      0.456       Cycle (sec):        100         Critical Vol./Cap. (X):      0.547
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):   11.5   Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):   11.8
Optimal Cycle:        0         Level Of Service:              B         Optimal Cycle:        0         Level Of Service:              B
************************************************************************   ************************************************************************
Approach:     North Bound    South Bound    East Bound    West Bound     Approach:     North Bound    South Bound    East Bound    West Bound
Movement:   L - T - R    L - T - R    L - T - R    L - T - R             Movement:   L - T - R    L - T - R    L - T - R    L - T - R
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Control:      Stop Sign      Stop Sign      Stop Sign      Stop Sign      Control:      Stop Sign      Stop Sign      Stop Sign      Stop Sign
Rights:        Include        Include        Include        Include      Rights:        Include        Include        Include        Include
Min. Green:   0   0   0    0   0   0    0   0   0    0   0   0           Min. Green:   0   0   0    0   0   0    0   0   0    0   0   0
Lanes:        1   0   0  0 0   0   0  0 0   0   0  0 0   1   1  0 0       Lanes:        1   0   0  0 0   0   0  0 0   0   0  0 0   1   1  0 0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM           Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:   191   0   0    0   0   0    0   0   0   99 494   0           Base Vol:   343   0   0    0   0   0    0   0   0   34 203   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 191   0   0    0   0   0    0   0   0   99 494   0          Initial Bse: 343   0   0    0   0   0    0   0   0   34 203   0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  PHF Adj:    0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 201   0   0    0   0   0    0   0   0  104 520   0           PHF Volume: 404   0   0    0   0   0    0   0   0   40 239   0
Reduct Vol:   0   0   0    0   0   0    0   0   0    0   0   0           Reduct Vol:   0   0   0    0   0   0    0   0   0    0   0   0
Reduced Vol: 201   0   0    0   0   0    0   0   0  104 520   0          Reduced Vol: 404   0   0    0   0   0    0   0   0   40 239   0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 201   0   0    0   0   0    0   0   0  104 520   0           Final Vol.: 404   0   0    0   0   0    0   0   0   40 239   0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:                                                  Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.33 1.67 0.00  Lanes:      1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.29 1.71 0.00
Final Sat.: 650   0   0    0   0   0    0   0   0  229 1163   0          Final Sat.: 738   0   0    0   0   0    0   0   0  177 1073   0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:                                                Capacity Analysis Module:
Vol/Sat:    0.31 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.46 0.45 xxxx  Vol/Sat:    0.55 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.23 0.22 xxxx
Crit Moves: ****                                        ****            Crit Moves: ****                                        ****
Delay/Veh:  10.6  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 12.1 11.8  0.0  Delay/Veh:  13.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  9.9  9.7  0.0
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.6  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 12.1 11.8  0.0  AdjDel/Veh: 13.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  9.9  9.7  0.0
LOS by Move:  B    *    *    *    *    *    *    *    *    B    B    *   LOS by Move:  B    *    *    *    *    *    *    *    *    A    A    *
ApproachDel:    10.6         xxxxxx         xxxxxx         11.8          ApproachDel:    13.2         xxxxxx         xxxxxx          9.7
Delay Adj:      1.00         xxxxx          xxxxx          1.00          Delay Adj:      1.00         xxxxx          xxxxx          1.00
ApprAdjDel:     10.6         xxxxxx         xxxxxx         11.8          ApprAdjDel:     13.2         xxxxxx         xxxxxx          9.7
LOS by Appr:     B             *              *             B           LOS by Appr:     B             *              *             A
************************************************************************   ************************************************************************




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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                           Existing Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #43 Bancroft Way / Piedmont Avenue
*******************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):          0.930
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):     28.2
Optimal Cycle:        0          Level Of Service:                   D
*******************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Stop Sign        Stop Sign       Stop Sign       Stop Sign
Rights:         Include          Include         Include         Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0    1    0 0   0    0    1 0   0    0    0 0   0    0    0 0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    131  553    0     0  344  123     0    0    0     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 131  553    0     0  344  123     0    0    0     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:  144  608    0     0  378  135     0    0    0     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 144  608    0     0  378  135     0    0    0     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  144  608    0     0  378  135     0    0    0     0    0    0
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.19 0.81 0.00  0.00 0.74 0.26  0.00 0.00 0.00  0.00 0.00 0.00
Final Sat.:  155  654    0     0  587  210     0    0    0     0    0    0
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.93 0.93 xxxx  xxxx 0.64 0.64  xxxx xxxx xxxx  xxxx xxxx xxxx
Crit Moves:      ****            ****
Delay/Veh:  37.2 37.2  0.0   0.0 15.0 15.0   0.0  0.0  0.0   0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 37.2 37.2  0.0   0.0 15.0 15.0   0.0  0.0  0.0   0.0  0.0  0.0
LOS by Move:  E    E    *     *    C    C     *    *    *     *    *    *
ApproachDel:      37.2            15.0           xxxxxx          xxxxxx
Delay Adj:        1.00            1.00            xxxxx           xxxxx
ApprAdjDel:       37.2            15.0           xxxxxx          xxxxxx
LOS by Appr:       E               C               *               *
*******************************************************************************
```

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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                           Existing Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #44 Durant Avenue / Shattuck Avenue
*******************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.472
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):     11.3
Optimal Cycle:       53          Level Of Service:                   B
*******************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted       Prot+Permit       Permitted       Permitted
Rights:         Include          Include         Include         Include
Min. Green:  19   19   19     5   19   19    17   17   17     0    0    0
Lanes:        1    0    1 1   0   1    0    1 1 0   0    1    0 1 0   0    0    0 0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     55  943  136    67  886    8     9   70   35     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  55  943  136    67  886    8     9   70   35     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:   58  993  143    71  933    8     9   74   37     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  58  993  143    71  933    8     9   74   37     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   58  993  143    71  933    8     9   74   37     0    0    0
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.95 0.95  1.00 0.95 0.95  0.95 0.95 0.95  1.00 1.00 1.00
Lanes:      1.00 1.75 0.25  1.00 1.98 0.02  0.16 1.23 0.61  0.00 0.00 0.00
Final Sat.: 1900 3155  455  1900 3578   32   285 2217 1108     0    0    0
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.03 0.31 0.31  0.04 0.26 0.26  0.03 0.03 0.03  0.00 0.00 0.00
Crit Moves:      ****            ****            ****
Green/Cycle: 0.37 0.37 0.37  0.55 0.55 0.55  0.27 0.27 0.27  0.00 0.00 0.00
Volume/Cap: 0.08 0.85 0.85  0.07 0.48 0.48  0.12 0.12 0.12  0.00 0.00 0.00
Delay/Veh:   8.4 18.5 18.5   1.5  2.6  2.6  18.2 18.2 18.2   0.0  0.0  0.0
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  8.4 18.5 18.5   1.5  2.6  2.6  18.2 18.2 18.2   0.0  0.0  0.0
DesignQueue:   1   24    3     1   16    0     0    2    1     0    0    0
*******************************************************************************
```

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EXISTING AM              Thu Jun 19, 2003 17:21:31          Page 49-1
---------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                AM Peak Hour
---------------------------------------------------------------------------
                       Level Of Service Computation Report
                 2000 HCM Operations Method (Base Volume Alternative)
***************************************************************************
Intersection #45 Durant Avenue / Fulton Street
***************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.352
Loss Time (sec):     8 (Y+R =  3 sec) Average Delay (sec/veh):     7.3
Optimal Cycle:      51          Level Of Service:                A
***************************************************************************
Approach:      North Bound    South Bound     East Bound     West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:    0    0    0    21   21    0    22   22   22    0    0    0
Lanes:         0    0    0    0    1    1    1    0    0    1    0    1    1    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0   459  656    0   123  262   27    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0   459  656    0   123  262   27    0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume:    0    0    0   494  705    0   132  282   29    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0    0    0   494  705    0   132  282   29    0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0    0    0   494  705    0   132  282   29    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  1.00 1.00 1.00 0.95 0.95 1.00 0.99 0.94 0.94 1.00 1.00 1.00
Lanes:       0.00 0.00 0.00 1.23 1.77 0.00 1.00 1.81 0.19 0.00 0.00 0.00
Final Sat.:    0    0    0  2229 3186    0  1873 3227  333    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.22 0.22 0.00 0.07 0.09 0.09 0.00 0.00 0.00
Crit Moves:                  ****            ****
Green/Cycle: 0.00 0.00 0.00 0.60 0.60 0.00 0.35 0.35 0.35 0.00 0.00 0.00
Volume/Cap:  0.00 0.00 0.00 0.37 0.37 0.00 0.20 0.25 0.25 0.00 0.00 0.00
Delay/Veh:    0.0  0.0  0.0  4.2  4.2  0.0 15.7 15.7 15.7  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   0.0  0.0  0.0  4.2  4.2  0.0 15.7 15.7 15.7  0.0  0.0  0.0
DesignQueue:   0    0    0    7   11    0    3    7    1    0    0    0
***************************************************************************




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EXISTING AM              Thu Jun 19, 2003 17:21:31          Page 50-1
---------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                AM Peak Hour
---------------------------------------------------------------------------
                       Level Of Service Computation Report
                 2000 HCM Operations Method (Base Volume Alternative)
***************************************************************************
Intersection #46 Durant Avenue / Telegraph Avenue
***************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.257
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    10.7
Optimal Cycle:      43          Level Of Service:                B
***************************************************************************
Approach:      North Bound    South Bound     East Bound     West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:    0   18   18    0    0    0    17   17    0    0    0    0
Lanes:         0    0    1    1    0    0    0    0    0    0    0    1    2    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0   362   86    0    0    0    73  387    0    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0   362   86    0    0    0    73  387    0    0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
PHF Volume:    0   377   90    0    0    0    76  403    0    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0   377   90    0    0    0    76  403    0    0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0   377   90    0    0    0    76  403    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  1.00 0.92 0.92 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 1.00
Lanes:       0.00 1.62 0.38 0.00 0.00 0.00 0.48 2.52 0.00 0.00 0.00 0.00
Final Sat.:    0  2832  673    0    0    0   823 4364    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.13 0.13 0.00 0.00 0.00 0.09 0.09 0.00 0.00 0.00 0.00
Crit Moves:       ****                           ****
Green/Cycle: 0.00 0.65 0.65 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.00 0.00
Volume/Cap:  0.00 0.20 0.20 0.00 0.00 0.00 0.32 0.32 0.00 0.00 0.00 0.00
Delay/Veh:    0.0  2.2  2.2  0.0  0.0  0.0 18.9 18.9  0.0  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   0.0  2.2  2.2  0.0  0.0  0.0 18.9 18.9  0.0  0.0  0.0  0.0
DesignQueue:   0    5    1    0    0    0    2   11    0    0    0    0
***************************************************************************




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--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #47 Durant Avenue / College Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.314
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     9.2
Optimal Cycle:      42          Level Of Service:              A
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   18   18    0    0    0   16   16   16    0    0    0
Lanes:        0  0  0  1  0   0  1  0  0  0   1  0  1  1  0   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0  213   66   13   23    0   64  228   87    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  213   66   13   23    0   64  228   87    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
PHF Volume:   0  242   75   15   26    0   73  259   99    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  242   75   15   26    0   73  259   99    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  242   75   15   26    0   73  259   99    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.97 0.97 1.00 1.00 1.00 0.96 0.91 0.91 1.00 1.00 1.00
Lanes:      0.00 0.76 0.24 0.36 0.64 0.00 1.00 1.45 0.55 0.00 0.00 0.00
Final Sat.:   0 1404  435  686 1214    0 1822 2506  956    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.00 0.17 0.17 0.02 0.02 0.00 0.04 0.10 0.10 0.00 0.00 0.00
Crit Moves:      ****                        ****
Green/Cycle: 0.00 0.52 0.52 0.52 0.52 0.00 0.43 0.43 0.43 0.00 0.00 0.00
Volume/Cap: 0.00 0.33 0.33 0.04 0.04 0.00 0.09 0.24 0.24 0.00 0.00 0.00
Delay/Veh:   0.0  7.6  7.6  7.7  7.7  0.0  9.9 10.7 10.7  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  7.6  7.6  7.7  7.7  0.0  9.9 10.7 10.7  0.0  0.0  0.0
DesignQueue:  0    4    1    0    0    0    2    5    2    0    0    0
********************************************************************************
```

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--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
               2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #48 Durant Avenue / Piedmont Avenue
********************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):        0.761
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):    17.4
Optimal Cycle:       0          Level Of Service:              C
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0  0  1  0  0   0  0  1  0  0   1  0  0  0  1   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0  489    0    0  345    0  158    0   86    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  489    0    0  345    0  158    0   86    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume:   0  520    0    0  367    0  168    0   91    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  520    0    0  367    0  168    0   91    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  520    0    0  367    0  168    0   91    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.00 1.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:   0  683    0    0  652    0  485    0  576    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   xxxx 0.76 xxxx xxxx 0.56 xxxx 0.35 xxxx 0.16 xxxx xxxx xxxx
Crit Moves:      ****             ****             ****
Delay/Veh:   0.0 22.1  0.0  0.0 14.7  0.0 13.1  0.0  9.5  0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 22.1  0.0  0.0 14.7  0.0 13.1  0.0  9.5  0.0  0.0  0.0
LOS by Move:  *    C    *    *    B    *    B    *    A    *    *    *
ApproachDel:     22.1             14.7             11.9           xxxxxx
Delay Adj:       1.00             1.00             1.00            xxxxx
ApprAdjDel:      22.1             14.7             11.9           xxxxxx
LOS by Appr:      C                B                B                *
********************************************************************************
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------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
------------------------------------------------------------------------------
                    Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
******************************************************************************
Intersection #49 Channing Way / Shattuck Avenue
******************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):         0.489
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     4.8
Optimal Cycle:      46          Level Of Service:                 A
******************************************************************************
Approach:      North Bound     South Bound      East Bound     West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16   16    16   16   16    22   22   22    22   22   22
Lanes:        1  0  1  1  0   1  0  1  1  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     42 1070   96    19  868   19    12   59   42    62   28   39
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  42 1070   96    19  868   19    12   59   42    62   28   39
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:   44 1115  100    20  904   20    13   61   44    65   29   41
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  44 1115  100    20  904   20    13   61   44    65   29   41
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   44 1115  100    20  904   20    13   61   44    65   29   41
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.31 0.94 0.94  0.21 0.95 0.95  0.93 0.93 0.93  0.80 0.80 0.80
Lanes:      1.00 1.84 0.16  1.00 1.96 0.04  0.11 0.52 0.37  0.48 0.22 0.30
Final Sat.:  587 3273  294   407 3522   77   187  918  653   731  330  460
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.07 0.34 0.34  0.05 0.26 0.26  0.07 0.07 0.07  0.09 0.09 0.09
Crit Moves:      ****                                            ****
Green/Cycle:0.53 0.53 0.53  0.53 0.53 0.53  0.42 0.42 0.42  0.42 0.42 0.42
Volume/Cap: 0.14 0.64 0.64  0.09 0.48 0.48  0.16 0.16 0.16  0.21 0.21 0.21
Delay/Veh:   2.8  4.4  4.4   2.7  3.2  3.2  12.4 12.4 12.4  13.0 13.0 13.0
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  2.8  4.4  4.4   2.7  3.2  3.2  12.4 12.4 12.4  13.0 13.0 13.0
DesignQueue:   1   20    2     0   16    0     0    1    1     1    1    1
******************************************************************************
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------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            AM Peak Hour
------------------------------------------------------------------------------
                    Level Of Service Computation Report
          2000 HCM 4-Way Stop Method (Base Volume Alternative)
******************************************************************************
Intersection #50 Channing Way / Fulton Street
******************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):         0.528
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):    12.3
Optimal Cycle:       0          Level Of Service:                 B
******************************************************************************
Approach:      North Bound     South Bound      East Bound     West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign       Stop Sign       Stop Sign       Stop Sign
Rights:          Include         Include         Include         Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0  0  0  0  0   0  1  0  1  0   0  0  0  1  0   0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0    86  543   51     0  132   20     7   72    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0    86  543   51     0  132   20     7   72    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:    0    0    0    91  572   54     0  139   21     7   76    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0    0    91  572   54     0  139   21     7   76    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0    0    91  572   54     0  139   21     7   76    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.00 0.00  0.25 1.60 0.15  0.00 0.87 0.13  0.09 0.91 0.00
Final Sat.:    0    0    0   171 1108  106     0  559   85    54  560    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx xxxx xxxx  0.53 0.52 0.51  xxxx 0.25 0.25  0.14 0.14 xxxx
Crit Moves:                      ****                ****        ****
Delay/Veh:   0.0  0.0  0.0  13.6 13.1 12.7   0.0 10.0 10.0   9.4  9.4  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  13.6 13.1 12.7   0.0 10.0 10.0   9.4  9.4  0.0
LOS by Move:  *    *    *     B    B    B     *    B    B     A    A    *
ApproachDel:   xxxxxx           13.1            10.0             9.4
Delay Adj:     xxxxx            1.00            1.00            1.00
ApprAdjDel:    xxxxxx           13.1            10.0             9.4
LOS by Appr:      *               B               B               A
******************************************************************************
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                              UC Berkeley LRDP EIR
                              Existing Conditions
                              AM Peak Hour

                       Level Of Service Computation Report
                2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #51 Channing Way / Telegraph Avenue
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.338
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   9.0
Optimal Cycle: 43   Level Of Service: A
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 18   18   18   0   0   0   17   17   0   0   17   17
Lanes: 0   1   0   1   0   0   0   0   0   1   0 0   0   0   1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00-9:00 AM (WB thru adjusted due
Base Vol: 56 423   79   0   0   0   16 179   0   0   98   9
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse: 56 423   79   0   0   0   16 179   0   0   98   9
User Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90   0.90 0.90 0.90   0.90 0.90 0.90   0.90 0.90 0.90
PHF Volume: 62 470   88   0   0   0   18 199   0   0 109   10
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 62 470   88   0   0   0   18 199   0   0 109   10
PCE Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   62 470   88   0   0   0   18 199   0   0 109   10
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.91 0.91 0.91   1.00 1.00 1.00   0.98 0.98 1.00   1.00 0.99 0.99
Lanes: 0.20 1.52 0.28   0.00 0.00 0.00   0.08 0.92 0.00   0.00 0.92 0.08
Final Sat.:   347 2623 490   0   0   0   152 1702   0   0 1721 158
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18   0.00 0.00 0.00   0.12 0.12 0.00   0.00 0.06 0.06
Crit Moves: ****   ****
Green/Cycle: 0.55 0.55 0.55   0.00 0.00 0.00   0.35 0.35 0.00   0.00 0.35 0.35
Volume/Cap: 0.33 0.33 0.33   0.00 0.00 0.00   0.33 0.33 0.00   0.00 0.18 0.18
Delay/Veh: 5.6 5.6 5.6   0.0 0.0 0.0   15.9 15.9 0.0   0.0 14.8 14.8
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh: 5.6 5.6 5.6   0.0 0.0 0.0   15.9 15.9 0.0   0.0 14.8 14.8
DesignQueue: 1   8   1   0   0   0   0   5   0   0   3   0
****

                              UC Berkeley LRDP EIR
                              Existing Conditions
                              AM Peak Hour

                       Level Of Service Computation Report
                2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #52 Channing Way / College Avenue
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.474
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   16.2
Optimal Cycle: 43   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 18   18   18   18   18   18   0   0   0   17   17   17
Lanes: 0   0   1! 0   0   0   1! 0   0   0   1! 0   0   0   1! 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM (WB thru, NB righ
Base Vol: 26 256   22   6   92   2   21   76   31   88 150   43
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse: 26 256   22   6   92   2   21   76   31   88 150   43
User Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85   0.85 0.85 0.85   0.85 0.85 0.85   0.85 0.85 0.85
PHF Volume: 31 301   26   7 108   2   25   89   36   104 176   51
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 31 301   26   7 108   2   25   89   36   104 176   51
PCE Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   31 301   26   7 108   2   25   89   36   104 176   51
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.96 0.96 0.96   0.98 0.98 0.98   0.97 0.97 0.97   0.79 0.79 0.79
Lanes: 0.09 0.84 0.07   0.06 0.92 0.02   0.16 0.60 0.24   0.31 0.54 0.15
Final Sat.:   157 1543 133   112 1713   37   301 1091 445   470 801 230
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.20 0.20 0.20   0.06 0.06 0.06   0.08 0.08 0.08   0.22 0.22 0.22
Crit Moves: ****   ****
Green/Cycle: 0.65 0.65 0.65   0.65 0.65 0.65   0.28 0.28 0.28   0.28 0.28 0.28
Volume/Cap: 0.30 0.30 0.30   0.10 0.10 0.10   0.29 0.29 0.29   0.77 0.77 0.77
Delay/Veh: 2.8 2.8 2.8   2.0 2.0 2.0   19.5 19.5 19.5   34.1 34.1 34.1
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh: 2.8 2.8 2.8   2.0 2.0 2.0   19.5 19.5 19.5   34.1 34.1 34.1
DesignQueue: 0   4   0   0   1   0   1   2   1   3   5   1
****

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #53 Haste Street / Shattuck Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.563
Loss Time (sec):     8 (Y+R =  6 sec) Average Delay (sec/veh):   50.9
Optimal Cycle:      47          Level Of Service:                 D
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  21  21   0     0   21   21    0    0    0   18   18   18
Lanes:      1  0  2  0  0   0  0  1  1  0   0  0  0  0  0   0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    66 1117   0     0  903   46    0    0    0  185  276   75
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 66 1117   0     0  903   46    0    0    0  185  276   75
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume:  70 1188   0     0  961   49    0    0    0  197  294   80
Reduct Vol:   0    0   0     0    0    0    0    0    0    0    0    0
Reduced Vol: 70 1188   0     0  961   49    0    0    0  197  294   80
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  70 1188   0     0  961   49    0    0    0  197  294   80
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.21 0.95 1.00 1.00 0.94 0.94 1.00 1.00 1.00 0.91 0.91 0.91
Lanes:     1.00 2.00 0.00 0.00 1.90 0.10 0.00 0.00 0.00 0.69 1.03 0.28
Final Sat.: 401 3610   0     0 3411  174    0    0    0 1194 1782  484
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.18 0.33 0.00 0.00 0.28 0.28 0.00 0.00 0.00 0.16 0.16 0.16
Crit Moves:      ****                             ****
Green/Cycle: 0.29 0.29 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.65 0.65 0.65
Volume/Cap: 0.60 1.13 0.00 0.00 0.96 0.96 0.00 0.00 0.00 0.25 0.25 0.25
Delay/Veh: 34.9 85.9  0.0   0.0 36.7 36.7  0.0  0.0  0.0  4.9  4.9  4.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 34.9 85.9  0.0   0.0 36.7 36.7  0.0  0.0  0.0  4.9  4.9  4.9
DesignQueue:  2   33   0     0   26    1    0    0    0    3    4    1
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                            UC Berkeley LRDP EIR
                            Existing Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #54 Haste Street / Fulton Street
********************************************************************************
Cycle (sec):        80          Critical Vol./Cap. (X):        0.340
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   13.8
Optimal Cycle:      53          Level Of Service:                 B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   0   0     0   25   25    0    0    0   20   20    0
Lanes:      0  0  0  0  0   0  0  1  1  0   0  0  0  0  0   0  1  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0    0   0     0  433  145    0    0    0   23  380    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0   0     0  433  145    0    0    0   23  380    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume:   0    0   0     0  476  159    0    0    0   25  418    0
Reduct Vol:   0    0   0     0    0    0    0    0    0    0    0    0
Reduced Vol:  0    0   0     0  476  159    0    0    0   25  418    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0    0   0     0  476  159    0    0    0   25  418    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 0.95 0.95 1.00
Lanes:     0.00 0.00 0.00 0.00 1.50 0.50 0.00 0.00 0.00 0.11 1.89 0.00
Final Sat.:   0    0   0     0 2602  871    0    0    0  206 3404    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.00 0.00 0.00 0.00 0.18 0.18 0.00 0.00 0.00 0.12 0.12 0.00
Crit Moves:                       ****                        ****
Green/Cycle: 0.00 0.00 0.00 0.00 0.69 0.69 0.00 0.00 0.00 0.26 0.26 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.27 0.27 0.00 0.00 0.00 0.47 0.47 0.00
Delay/Veh:  0.0  0.0  0.0   0.0  5.1  5.1  0.0  0.0  0.0 26.5 26.5  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0   0.0  5.1  5.1  0.0  0.0  0.0 26.5 26.5  0.0
DesignQueue:  0    0   0     0    7    2    0    0    0    1   14    0
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                              UC Berkeley LRDP EIR
                              Existing Conditions
                               AM Peak Hour

                     Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #55 Haste Street / Telegraph Avenue
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.381
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   15.9
Optimal Cycle: 40   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 16   16   0   0   0   0   0   0   0   0   16   16
Lanes: 0   1   1 0 0   0   0 0 0   0   0 0 0   0   1   1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 216 520   0   0   0   0   0   0   0   0 334   34
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 216 520   0   0   0   0   0   0   0   0 334   34
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 235 565   0   0   0   0   0   0   0   0 363   37
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 235 565   0   0   0   0   0   0   0   0 363   37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 235 565   0   0   0   0   0   0   0   0 363   37
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.94 0.94
Lanes: 0.59 1.41 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.82 0.18
Final Sat.: 1059 2551   0   0   0   0   0   0   0   0 3231 329
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.22 0.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.11 0.11
Crit Moves: ****   ****
Green/Cycle: 0.34 0.34 0.34 0.00 0.00 0.00 0.00 0.00 0.00 0.53 0.53 0.53
Volume/Cap: 0.65 0.65 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.21 0.21
Delay/Veh: 19.7 19.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.2 8.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 19.7 19.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.2 8.2
DesignQueue: 6   14   0   0   0   0   0   0   0   0   6   1
****

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                               AM Peak Hour

                     Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #56 Haste Street / College Avenue
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.467
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   8.3
Optimal Cycle: 40   Level Of Service: A
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 16   16   0   0   16   16   0   0   0   16   16   16
Lanes: 0   1   0 0 0   0   0 0 1   0   0 0 0   0   1   0 1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 167 267   0   0 115   69   0   0   0   48 223   21
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 167 267   0   0 115   69   0   0   0   48 223   21
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 186 297   0   0 128   77   0   0   0   53 248   23
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 186 297   0   0 128   77   0   0   0   53 248   23
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 186 297   0   0 128   77   0   0   0   53 248   23
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.80 0.80 1.00 1.00 0.95 0.95 1.00 1.00 1.00 0.93 0.93 0.93
Lanes: 0.38 0.62 0.00 0.00 0.62 0.38 0.00 0.00 0.00 0.33 1.53 0.14
Final Sat.: 585 935   0   0 1127 676   0   0   0 580 2697 254
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.32 0.32 0.00 0.00 0.11 0.11 0.00 0.00 0.00 0.09 0.09 0.09
Crit Moves: ****   ****
Green/Cycle: 0.68 0.68 0.00 0.00 0.68 0.68 0.00 0.00 0.00 0.27 0.27 0.27
Volume/Cap: 0.47 0.47 0.00 0.00 0.17 0.17 0.00 0.00 0.00 0.34 0.34 0.34
Delay/Veh: 3.3 3.3 0.0 0.0 1.6 1.6 0.0 0.0 0.0 20.1 20.1 20.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.3 3.3 0.0 0.0 1.6 1.6 0.0 0.0 0.0 20.1 20.1 20.1
DesignQueue: 2   4   0   0   2   1   0   0   0   1   7   1
****

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```
                             UC Berkeley LRDP EIR
                             Existing Conditions
                               AM Peak Hour
------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #57 Dwight Way / Martin Luther King Way
********************************************************************************
Cycle (sec):        70            Critical Vol./Cap. (X):         0.716
Loss Time (sec):    12 (Y+R =  4 sec) Average Delay (sec/veh):     14.2
Optimal Cycle:      56            Level Of Service:                  B
********************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   18   18   18     18   18   18     21   21   21      0    0    0
Lanes:         0    1    0  1   0    1    0  1   0    1    0  1   0    0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:      62  690   66     88  868  163     68  419   83      0    0    0
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   62  690   66     88  868  163     68  419   83      0    0    0
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95
PHF Volume:    65  726   69     93  914  172     72  441   87      0    0    0
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   65  726   69     93  914  172     72  441   87      0    0    0
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    65  726   69     93  914  172     72  441   87      0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:  0.72 0.72 0.72   0.74 0.74 0.74   0.91 0.91 0.91   1.00 1.00 1.00
Lanes:       0.15 1.69 0.16   0.16 1.55 0.29   0.24 1.47 0.29   0.00 0.00 0.00
Final Sat.:   207 2308  221    221 2177  409    412 2538  503      0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.31 0.31 0.31   0.42 0.42 0.42   0.17 0.17 0.17   0.00 0.00 0.00
Crit Moves:             ****             ****        ****
Green/Cycle: 0.44 0.44 0.44   0.59 0.59 0.59   0.34 0.34 0.34   0.00 0.00 0.00
Volume/Cap:  0.71 0.71 0.71   0.72 0.72 0.72   0.52 0.52 0.52   0.00 0.00 0.00
Delay/Veh:   17.0 17.0 17.0    9.0  9.0  9.0   20.3 20.3 20.3    0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  17.0 17.0 17.0    9.0  9.0  9.0   20.3 20.3 20.3    0.0  0.0  0.0
DesignQueue:    1   17    2      2   16    3      2   12    2      0    0    0
********************************************************************************
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                             UC Berkeley LRDP EIR
                             Existing Conditions
                               AM Peak Hour
------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #58 Dwight Way / Shattuck Avenue
********************************************************************************
Cycle (sec):        65            Critical Vol./Cap. (X):         0.740
Loss Time (sec):    12 (Y+R =  5 sec) Average Delay (sec/veh):     10.3
Optimal Cycle:      66            Level Of Service:                  B
********************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted       Prot+Permit       Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    0   17   17     20   20    0     17   17   17      0    0    0
Lanes:         0    0    1  1   1    0    1  1   0    1    0  1   0    0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:       0 1094  113     95  989    0     66  420  151      0    0    0
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:    0 1094  113     95  989    0     66  420  151      0    0    0
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     0.96 0.96 0.96   0.96 0.96 0.96   0.96 0.96 0.96   0.96 0.96 0.96
PHF Volume:     0 1140  118     99 1030    0     69  438  157      0    0    0
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:    0 1140  118     99 1030    0     69  438  157      0    0    0
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:     0 1140  118     99 1030    0     69  438  157      0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:  1.00 0.94 0.94   0.95 0.95 0.95   0.88 0.88 0.88   1.00 1.00 1.00
Lanes:       0.00 1.81 0.19   1.00 2.00 0.00   0.21 1.32 0.47   0.00 0.00 0.00
Final Sat.:     0 3226  333   1805 3610    0    348 2212  795      0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.35 0.35   0.05 0.29 0.00   0.20 0.20 0.20   0.00 0.00 0.00
Crit Moves:        ****        ****                 ****
Green/Cycle: 0.00 0.47 0.47   0.65 0.65 0.00   0.26 0.26 0.26   0.00 0.00 0.00
Volume/Cap:  0.00 0.75 0.75   0.08 0.44 0.00   0.76 0.76 0.76   0.00 0.00 0.00
Delay/Veh:    0.0  9.1  9.1    4.3  0.6  0.0   28.5 28.5 28.5    0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:   0.0  9.1  9.1    4.3  0.6  0.0   28.5 28.5 28.5    0.0  0.0  0.0
DesignQueue:    0   24    2      1   14    0      2   12    4      0    0    0
********************************************************************************
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--------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #59 Dwight Way / Fulton Street
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):         0.432
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    11.3
Optimal Cycle:       45          Level Of Service:                  B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:    0    0   21    21    0    0     0   16   16     0    0    0
Lanes:         0  0  0  0  1   2  0  0  0  0   0  0  1  1  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0   12   449    0    0     0  620    6     0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0   12   449    0    0     0  620    6     0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.97 0.97 0.97 0.97 0.97 0.97  0.97 0.97 0.97  0.97 0.97 0.97
PHF Volume:    0    0   12   463    0    0     0  639    6     0    0    0
Reduct Vol:    0    0    0    0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0   12   463    0    0     0  639    6     0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0   12   463    0    0     0  639    6     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 1.00 0.87 0.60 1.00 1.00  1.00 0.95 0.95  1.00 1.00 1.00
Lanes:       0.00 0.00 1.00 2.00 0.00 0.00  0.00 1.98 0.02  0.00 0.00 0.00
Final Sat.:    0    0 1644 2274    0    0     0 3572   35     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.01 0.20 0.00 0.00  0.00 0.18 0.18  0.00 0.00 0.00
Crit Moves:            ****                        ****
Green/Cycle: 0.00 0.00 0.37 0.37 0.00 0.00  0.00 0.58 0.58  0.00 0.00 0.00
Volume/Cap:  0.00 0.00 0.02 0.55 0.00 0.00  0.00 0.31 0.31  0.00 0.00 0.00
Delay/Veh:    0.0  0.0 14.0 19.9  0.0  0.0   0.0  5.1  5.1   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0  0.0 14.0 19.9  0.0  0.0   0.0  5.1  5.1   0.0  0.0  0.0
DesignQueue:   0    0    0   12    0    0     0   11    0     0    0    0
********************************************************************************
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--------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #60 Dwight Way / Telegraph Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):         0.680
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    16.2
Optimal Cycle:       43          Level Of Service:                  B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:    0   15   15     0    0    0    17   17   17     0    0    0
Lanes:         0  0  1  1  0   0  0  0  0  0   0  1  0  1  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  697   78     0    0    0    66  479  565     0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  697   78     0    0    0    66  479  565     0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.98 0.98 0.98 0.98 0.98 0.98  0.98 0.98 0.98  0.98 0.98 0.98
PHF Volume:    0  711   80     0    0    0    67  489  577     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0  711   80     0    0    0    67  489  577     0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  711   80     0    0    0    67  489  577     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 0.94 0.94 1.00 1.00 1.00  0.81 0.81 0.81  1.00 1.00 1.00
Lanes:       0.00 1.80 0.20 0.00 0.00 0.00  0.12 0.88 1.00  0.00 0.00 0.00
Final Sat.:    0 3198  358     0    0    0   187 1354 1541     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.22 0.22 0.00 0.00 0.00  0.36 0.36 0.37  0.00 0.00 0.00
Crit Moves:       ****                             ****
Green/Cycle: 0.00 0.33 0.33 0.00 0.00 0.00  0.55 0.55 0.55  0.00 0.00 0.00
Volume/Cap:  0.00 0.68 0.68 0.00 0.00 0.00  0.66 0.66 0.68  0.00 0.00 0.00
Delay/Veh:    0.0 21.5 21.5  0.0  0.0  0.0  12.3 12.3 12.8   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 21.5 21.5  0.0  0.0  0.0  12.3 12.3 12.8   0.0  0.0  0.0
DesignQueue:   0   18    2     0    0    0     1    8   10     0    0    0
********************************************************************************
```

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                       UC Berkeley LRDP EIR
                       Existing Conditions
                       AM Peak Hour
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                   Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #61 Dwight Way / College Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):         0.439
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    10.4
Optimal Cycle:       39          Level Of Service:                  B
********************************************************************************
Approach:      North Bound     South Bound      East Bound     West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted        Permitted       Permitted
Rights:         Include         Include          Include         Include
Min. Green:   0   16   16    16   16    0    15   15   15     0    0    0
Lanes:        0  0  0  1  0   0  1  0  0  0   0  1  0  1  0   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     0  365   51    10  150    0    68  352   85     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0  365   51    10  150    0    68  352   85     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:   0  380   53    10  156    0    71  367   89     0    0    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0  380   53    10  156    0    71  367   89     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0  380   53    10  156    0    71  367   89     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.98 0.98  0.98 0.98 1.00  0.90 0.90 0.90  1.00 1.00 1.00
Lanes:      0.00 0.88 0.12  0.06 0.94 0.00  0.27 1.39 0.34  0.00 0.00 0.00
Final Sat.:   0 1639  229   116 1737    0   462 2392  578     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.00 0.23 0.23  0.09 0.09 0.00  0.15 0.15 0.15  0.00 0.00 0.00
Crit Moves:      ****                            ****
Green/Cycle: 0.00 0.60 0.60  0.60 0.60 0.00  0.34 0.34 0.34  0.00 0.00 0.00
Volume/Cap: 0.00 0.39 0.39  0.15 0.15 0.00  0.45 0.45 0.45  0.00 0.00 0.00
Delay/Veh:   0.0  4.9  4.9   3.6  3.6  0.0  17.2 17.2 17.2   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  4.9  4.9   3.6  3.6  0.0  17.2 17.2 17.2   0.0  0.0  0.0
DesignQueue:  0    6    1     0    2    0     2    9    2     0    0    0
********************************************************************************
```

```
                       UC Berkeley LRDP EIR
                       Existing Conditions
                       AM Peak Hour
```

```
                   Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #62 Dwight Way / Piedmont Avenue / Warring Street
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):         0.375
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     9.4
Optimal Cycle:       61          Level Of Service:                  A
********************************************************************************
Approach:      North Bound     South Bound      East Bound     West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted        Permitted       Permitted
Rights:         Include         Include          Include         Include
Min. Green:   0   22    0    29   29    0    24   24   24    24    0   24
Lanes:        0  0  1  1  0   0  1  1  0  0   1  0  1  0  1   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: 7:00 AM - 9:00 AM
Base Vol:     0  583    0     8  324    0    91  143  238    42    0   48
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0  583    0     8  324    0    91  143  238    42    0   48
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:   0  620    0     9  345    0    97  152  253    45    0   51
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0  620    0     9  345    0    97  152  253    45    0   51
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0  620    0     9  345    0    97  152  253    45    0   51
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.95 0.95  0.89 0.89 1.00  0.73 1.00 0.85  0.79 1.00 0.79
Lanes:      0.00 2.00 0.00  0.05 1.95 0.00  1.00 1.00 1.00  0.47 0.00 0.53
Final Sat.:   0 3610    0    82 3319    0  1393 1900 1615   698    0  797
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.00 0.17 0.00  0.10 0.10 0.00  0.07 0.08 0.16  0.06 0.00 0.06
Crit Moves:      ****                            ****
Green/Cycle: 0.00 0.50 0.00  0.50 0.50 0.00  0.45 0.45 0.45  0.45 0.00 0.45
Volume/Cap: 0.00 0.34 0.00  0.21 0.21 0.00  0.16 0.18 0.35  0.14 0.00 0.14
Delay/Veh:   0.0  8.0  0.0   7.2  7.2  0.0  11.2 11.3 13.2  11.1  0.0 11.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  8.0  0.0   7.2  7.2  0.0  11.2 11.3 13.2  11.1  0.0 11.1
DesignQueue:  0   12    0     0    6    0     2    3    5     1    0    1
********************************************************************************
```

```
EXISTING AM              Thu Jun 19, 2003 17:21:32         Page 67-1        EXISTING AM              Thu Jun 19, 2003 17:21:32         Page 68-1
--------------------------------------------------------------------------  --------------------------------------------------------------------------
                        UC Berkeley LRDP EIR                                                        UC Berkeley LRDP EIR
                        Existing Conditions                                                         Existing Conditions
                          AM Peak Hour                                                                AM Peak Hour
--------------------------------------------------------------------------  --------------------------------------------------------------------------
                 Level Of Service Computation Report                                         Level Of Service Computation Report
          2000 HCM Unsignalized Method (Base Volume Alternative)                      2000 HCM Operations Method (Base Volume Alternative)
**************************************************************************  **************************************************************************
Intersection #63 Dwight Avenue / Prospect Street                            Intersection #64 Adeline Street / Ward Avenue / Shattuck Avenue
**************************************************************************  **************************************************************************
Average Delay (sec/veh):     5.9        Worst Case Level Of Service:    B   Cycle (sec):         65         Critical Vol./Cap. (X):       0.738
**************************************************************************  Loss Time (sec):      8 (Y+R =  6 sec) Average Delay (sec/veh):     14.9
Approach:    North Bound     South Bound     East Bound     West Bound     Optimal Cycle:       52                 Level Of Service:            B
Movement:    L - T - R       L - T - R       L - T - R      L - T - R       **************************************************************************
-----------|---------------||---------------||---------------||-------------|  Approach:    North Bound     South Bound     East Bound     West Bound
Control:       Stop Sign       Stop Sign      Uncontrolled    Uncontrolled   Movement:    L - T - R       L - T - R       L - T - R      L - T - R
Rights:         Include         Include         Include         Include     -----------|---------------||---------------||---------------||-------------|
Lanes:       0  0  0  0  0   0  0  1! 0  0   0  1  0  0  0   0  0  0  1  0   Control:       Permitted       Permitted       Protected      Permitted
-----------|---------------||---------------||---------------||-------------|  Rights:         Include         Include         Include         Include
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM              Min. Green:   0   25   25     0   25   25    19    0   19     0    0    0
Base Vol:     0    0    0    14    0  109   246   72    0     0   53   15    Lanes:        0  0  0  1  0   0  0  2  0  1   2  0  0  0  1   0  0  0  0  0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00   -----------|---------------||---------------||---------------||-------------|
Initial Bse:  0    0    0    14    0  109   246   72    0     0   53   15    Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00   Base Vol:     0  784    3     0  736  546   723    0    4     0    0    0
PHF Adj:    0.96 0.96 0.96  0.96 0.96 0.96 0.96 0.96 0.96  0.96 0.96 0.96   Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0    0    0    15    0  114   256   75    0     0   55   16    Initial Bse:  0  784    3     0  736  546   723    0    4     0    0    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0     User Adj:   1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0    0    0    15    0  114   256   75    0     0   55   16    PHF Adj:    0.96 0.96 0.96  0.96 0.96 0.96 0.96 0.96 0.96  0.96 0.96 0.96
-----------|---------------||---------------||---------------||-------------|  PHF Volume:   0  817    3     0  767  569   753    0    4     0    0    0
Critical Gap Module:                                                        Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx   6.2  4.1 xxxx xxxxx xxxxx xxxx xxxxx  Reduced Vol:  0  817    3     0  767  569   753    0    4     0    0    0
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx   3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx  PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
-----------|---------------||---------------||---------------||-------------|  MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
Capacity Module:                                                            Final Vol.:   0  817    3     0  767  569   753    0    4     0    0    0
Cnflct Vol: xxxx xxxx xxxxx  651 xxxx    63   71 xxxx xxxxx  xxxx xxxx xxxxx  -----------|---------------||---------------||---------------||-------------|
Potent Cap.: xxxx xxxx xxxxx  437 xxxx 1007 1542 xxxx xxxxx  xxxx xxxx xxxxx  Saturation Flow Module:
Move Cap.:  xxxx xxxx xxxxx  372 xxxx 1007 1542 xxxx xxxxx  xxxx xxxx xxxxx  Sat/Lane:   1900 1900 1900  1900 1900 1900 1900 1900 1900  1900 1900 1900
-----------|---------------||---------------||---------------||-------------|  Adjustment: 1.00 1.00 1.00  1.00 0.95 0.85 0.92 1.00 0.85  1.00 1.00 1.00
Level Of Service Module:                                                    Lanes:      0.00 0.99 0.01  0.00 2.00 1.00 2.00 0.00 1.00  0.00 0.00 0.00
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  7.8 xxxx xxxxx xxxxx xxxx xxxxx  Final Sat.:   0 1891    7     0 3610 1615 3502    0 1615     0    0    0
LOS by Move:  *    *    *     *    *    *     A    *    *     *    *    *     -----------|---------------||---------------||---------------||-------------|
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT  LT - LTR - RT    Capacity Analysis Module:
Shared Cap.: xxxx xxxx xxxxx xxxx  843 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx  Vol/Sat:    0.00 0.43 0.43  0.00 0.21 0.35 0.22 0.00 0.00  0.00 0.00 0.00
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 10.0 xxxxx  7.8 xxxx xxxxx xxxxx xxxx xxxxx  Crit Moves:      ****                    ****
Shared LOS:   *    *    *     *    B    *     A    *    *     *    *    *     Green/Cycle: 0.00 0.58 0.58  0.00 0.58 0.58 0.29 0.00 0.29  0.00 0.00 0.00
ApproachDel:    xxxxxx           10.0          xxxxxx         xxxxxx         Volume/Cap: 0.00 0.74 0.74  0.00 0.36 0.60 0.74 0.00 0.01  0.00 0.00 0.00
ApproachLOS:      *               B              *              *           Delay/Veh:   0.0 14.3 14.3   0.0  7.6 11.5 25.4  0.0 16.4   0.0  0.0  0.0
                                                                            User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
                                                                            AdjDel/Veh:  0.0 14.3 14.3   0.0  7.6 11.5 25.4  0.0 16.4   0.0  0.0  0.0
                                                                            DesignQueue:  0   13    0     0   12    9   20    0    0     0    0    0
                                                                            **************************************************************************




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                            UC Berkeley LRDP EIR
                             Existing Conditions
                               AM Peak Hour

                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
****
Intersection #65 Derby Street / Warring Street
****
Cycle (sec):   100   Critical Vol./Cap. (X):   1.304
Loss Time (sec):   0 (Y+R = 4 sec) Average Delay (sec/veh):   150.3
Optimal Cycle: 0   Level Of Service: F
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Stop Sign   Stop Sign   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 0 0 0 0 0   0 0 1! 0 0   0 1 0 0 0   0 0 0 1 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 0   0   0   650   0   31   14   20   0   0   34 779
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   0   0   650   0   31   14   20   0   0   34 779
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0   0   0   714   0   34   15   22   0   0   37 856
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0   0   0   714   0   34   15   22   0   0   37 856
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0   0   0   714   0   34   15   22   0   0   37 856
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.95 0.00 0.05 0.41 0.59 0.00 0.00 0.04 0.96
Final Sat.:   0   0   0   578   0   28   214 306   0   0   29 656
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: xxxx xxxx xxxx 1.24 xxxx 1.24 0.07 0.07 xxxx xxxx 1.30 1.30
Crit Moves: ****   ****   ****
Delay/Veh: 0.0 0.0 0.0 139.9 0.0 139.9 10.5 10.5 0.0   0.0 165 164.8
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 139.9 0.0 139.9 10.5 10.5 0.0   0.0 165 164.8
LOS by Move: *   *   *   F   *   F   B   B   *   *   F   F
ApproachDel: xxxxxx   139.9   10.5   164.8
Delay Adj: xxxxx   1.00   1.00   1.00
ApprAdjDel: xxxxxx   139.9   10.5   164.8
LOS by Appr: *   F   B   F
****

                            UC Berkeley LRDP EIR
                             Existing Conditions
                               AM Peak Hour

                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #66 Derby Street / Claremont Blvd.
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.584
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   13.4
Optimal Cycle: 61   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Split Phase   Split Phase   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 18   0   18   0   0   0   0   35   35   35   35   0
Lanes: 0 0 1! 0 0   0 0 0 0 0   0 0 0 1 0   0 1 0 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 5   0   64   0   0   0   0 665   12   52 813   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 5   0   64   0   0   0   0 665   12   52 813   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume: 5   0   66   0   0   0   0 686   12   54 838   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 5   0   66   0   0   0   0 686   12   54 838   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   5   0   66   0   0   0   0 686   12   54 838   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.87 1.00 0.87 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.07 0.00 0.93 0.00 0.00 0.00 0.00 0.98 0.02 0.06 0.94 0.00
Final Sat.: 120   0 1536   0   0   0   0 1863   34   114 1786   0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.37 0.37 0.47 0.47 0.00
Crit Moves: ****   ****
Green/Cycle: 0.28 0.00 0.28 0.00 0.00 0.00 0.00 0.60 0.60 0.60 0.60 0.00
Volume/Cap: 0.16 0.00 0.16 0.00 0.00 0.00 0.00 0.61 0.61 0.78 0.78 0.00
Delay/Veh: 18.5 0.0 18.5   0.0 0.0 0.0   0.0 10.7 10.7 15.2 15.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 18.5 0.0 18.5   0.0 0.0 0.0   0.0 10.7 10.7 15.2 15.2 0.0
DesignQueue: 0   0   2   0   0   0   0   11   0   1   13   0
****

```
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #67 Ashby Avenue / Seventh Street
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):         0.850
Loss Time (sec):      12 (Y+R =  4 sec) Average Delay (sec/veh):    34.3
Optimal Cycle:        90          Level Of Service:                  C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted       Split Phase      Split Phase
Rights:          Include          Include          Include          Include
Min. Green:    4   19   19     4   19   19     4   22   22     4   20   20
Lanes:         0    1    0  1  0    1    0  1  0  1    0  1  1  0  1    0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:      62  162   54    54  193  224   433  915  306   111  663   25
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   62  162   54    54  193  224   433  915  306   111  663   25
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:    65  171   57    57  203  236   456  963  322   117  698   26
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   65  171   57    57  203  236   456  963  322   117  698   26
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    65  171   57    57  203  236   456  963  322   117  698   26
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.58 0.58 0.58  0.74 0.74 0.74  0.95 0.91 0.91  0.95 0.95 0.95
Lanes:       0.45 1.16 0.39  0.23 0.82 0.95  1.00 1.50 0.50  1.00 1.93 0.07
Final Sat.:   493 1289  430   323 1154 1340  1805 2602  870  1805 3461  131
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.13 0.13 0.13  0.18 0.18 0.18  0.25 0.37 0.37  0.06 0.20 0.20
Crit Moves:                       ****                 ****                 ****
Green/Cycle: 0.21 0.21 0.21  0.21 0.21 0.21  0.44 0.44 0.44  0.24 0.24 0.24
Volume/Cap:  0.64 0.64 0.64  0.85 0.85 0.85  0.58 0.85 0.85  0.27 0.85 0.85
Delay/Veh:   39.2 39.2 39.2  49.5 49.5 49.5  19.3 26.4 26.4  32.4 45.6 45.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  39.2 39.2 39.2  49.5 49.5 49.5  19.3 26.4 26.4  32.4 45.6 45.6
DesignQueue:    3    8    3     3    9   11    15   33   11     5   31    1
********************************************************************************
```

```
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #68 Ashby Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):         0.738
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):    28.7
Optimal Cycle:        54          Level Of Service:                  C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    4   17   17     4   19   19    18   18   18    18   18   18
Lanes:         1    0    1  1  0    1    0  1  1  0  1    0  1  1  0  0    1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     173  521   53   137  741  128    84  584  134    51  613  135
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  173  521   53   137  741  128    84  584  134    51  613  135
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.92 0.92 0.92  0.92 0.92 0.92  0.92 0.92 0.92  0.92 0.92 0.92
PHF Volume:   188  566   58   149  805  139    91  635  146    55  666  147
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  188  566   58   149  805  139    91  635  146    55  666  147
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   188  566   58   149  805  139    91  635  146    55  666  147
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.94 0.94  0.95 0.93 0.93  0.19 0.92 0.92  0.74 0.74 0.74
Lanes:       1.00 1.82 0.18  1.00 1.71 0.29  1.00 1.63 0.37  0.13 1.53 0.34
Final Sat.:  1805 3231  329  1805 3011  520   352 2854  655   180 2166  477
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.18 0.18  0.08 0.27 0.27  0.26 0.22 0.22  0.31 0.31 0.31
Crit Moves:  ****                 ****                 ****                 ****
Green/Cycle: 0.14 0.34 0.34  0.16 0.36 0.36  0.42 0.42 0.42  0.42 0.42 0.42
Volume/Cap:  0.74 0.51 0.51  0.51 0.74 0.74  0.62 0.53 0.53  0.74 0.74 0.74
Delay/Veh:   52.0 26.6 26.6  39.9 30.1 30.1  31.1 22.3 22.3  27.1 27.1 27.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  52.0 26.6 26.6  39.9 30.1 30.1  31.1 22.3 22.3  27.1 27.1 27.1
DesignQueue:    9   21    2     7   30    5     3   22    5     2   23    5
********************************************************************************
```

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                             UC Berkeley LRDP EIR
                             Existing Conditions
                                AM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #69 Ashby Avenue / Adeline Street
********************************************************************************
Cycle (sec):         140          Critical Vol./Cap. (X):         0.539
Loss Time (sec):      16 (Y+R =  4 sec) Average Delay (sec/veh):    40.1
Optimal Cycle:        96          Level Of Service:                 D
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:   4   38   38     6   38   38     4   22   22     4   32   32
Lanes:       1  0  1  1  0   1  0  2  1  0   1  0  1  1  0   1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     74   567   61    11   438   96   189   564   49    83   549   14
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  74   567   61    11   438   96   189   564   49    83   549   14
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:   80   610   66    12   471  103   203   606   53    89   590   15
Reduct Vol:    0     0    0     0     0    0     0     0    0     0     0    0
Reduced Vol:  80   610   66    12   471  103   203   606   53    89   590   15
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   80   610   66    12   471  103   203   606   53    89   590   15
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.94 0.94  0.95 0.89 0.89  0.95 0.94 0.94  0.95 0.95 0.95
Lanes:      1.00 1.81 0.19  1.00 2.46 0.54  1.00 1.84 0.16  1.00 1.95 0.05
Final Sat.: 1805 3210  345  1805 4140  907  1805 3282  285  1805 3506   89
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.19 0.19  0.01 0.11 0.11  0.11 0.18 0.18  0.05 0.17 0.17
Crit Moves:       ****            ****            ****            ****
Green/Cycle: 0.11 0.34 0.34  0.04 0.27 0.27  0.20 0.40 0.40  0.11 0.30 0.30
Volume/Cap:  0.40 0.56 0.56  0.15 0.42 0.42  0.56 0.47 0.47  0.47 0.56 0.56
Delay/Veh:   59.1 38.2 38.2  65.5 42.1 42.1  54.9 28.3 28.3  66.8 41.1 41.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  59.1 38.2 38.2  65.5 42.1 42.1  54.9 28.3 28.3  66.8 41.1 41.1
DesignQueue:   6   33    4     1   27    6    13   30    3     6   33    1
********************************************************************************
```

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                             UC Berkeley LRDP EIR
                             Existing Conditions
                                AM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #70 Ashby Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):          80          Critical Vol./Cap. (X):         0.483
Loss Time (sec):      12 (Y+R =  5 sec) Average Delay (sec/veh):    14.9
Optimal Cycle:        53          Level Of Service:                 B
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   21   21   21     6   21   21    20   20   20    20   20   20
Lanes:       0  1  0  1  0   0  1  0  1  0   0  1  0  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     77   590   26   124   450   35    33   557   31    40   550  182
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  77   590   26   124   450   35    33   557   31    40   550  182
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:   82   628   28   132   479   37    35   593   33    43   585  194
Reduct Vol:    0     0    0     0     0    0     0     0    0     0     0    0
Reduced Vol:  82   628   28   132   479   37    35   593   33    43   585  194
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   82   628   28   132   479   37    35   593   33    43   585  194
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.22 1.70 0.08  0.41 1.48 0.11  0.11 1.79 0.10  0.10 1.43 0.47
Final Sat.:  422 3235  143   774 2808  218   202 3408  190   197 2707  896
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.19 0.19  0.17 0.17 0.17  0.17 0.17 0.17  0.22 0.22 0.22
Crit Moves:       ****            ****            ****            ****
Green/Cycle: 0.33 0.33 0.33  0.41 0.41 0.41  0.52 0.52 0.52  0.52 0.52 0.52
Volume/Cap:  0.60 0.60 0.60  0.42 0.42 0.42  0.33 0.33 0.33  0.41 0.41 0.41
Delay/Veh:   24.7 24.7 24.7  17.8 17.8 17.8   8.4  8.4  8.4   9.0  9.0  9.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  24.7 24.7 24.7  17.8 17.8 17.8   8.4  8.4  8.4   9.0  9.0  9.0
DesignQueue:   3   20    1     4   13    1     1   13    1     1   13    4
********************************************************************************
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EXISTING AM              Thu Jun 19, 2003 17:21:32          Page 75-1
--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
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                              AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #71 Ashby Avenue / Telegraph Avenue
********************************************************************************
Cycle (sec):         80       Critical Vol./Cap. (X):        0.745
Loss Time (sec):     12 (Y+R =  6 sec) Average Delay (sec/veh):    26.3
Optimal Cycle:       62       Level Of Service:                  C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Prot+Permit        Permitted        Permitted
Rights:          Include          Include           Include          Include
Min. Green:  21   21   21     0   21   21    25   25   25     25   25   25
Lanes:        1 0  1  1 0     1 0  1  1 0     1 0  1  1 0     1 0  1  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    150  985   80   148  623  103    86  549  120    89  573   83
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 150  985   80   148  623  103    86  549  120    89  573   83
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:  161 1059   86   159  670  111    92  590  129    96  616   89
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 161 1059   86   159  670  111    92  590  129    96  616   89
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  161 1059   86   159  670  111    92  590  129    96  616   89
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.25 0.94 0.94  0.95 0.93 0.93  0.25 0.92 0.92  0.24 0.93 0.93
Lanes:      1.00 1.85 0.15  1.00 1.72 0.28  1.00 1.64 0.36  1.00 1.75 0.25
Final Sat.:  483 3302  268  1805 3033  501   471 2882  630   454 3093  448
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.33 0.32 0.32  0.09 0.22 0.22  0.20 0.20 0.20  0.21 0.20 0.20
Crit Moves: ****             ****                            ****
Green/Cycle: 0.38 0.38 0.38  0.48 0.48 0.48  0.33 0.33 0.33  0.33 0.33 0.33
Volume/Cap: 0.89 0.86 0.86  0.18 0.46 0.46  0.60 0.63 0.63  0.65 0.61 0.61
Delay/Veh:  66.7 30.2 30.2  12.3 14.7 14.7  38.3 24.8 24.8  42.3 24.4 24.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 66.7 30.2 30.2  12.3 14.7 14.7  38.3 24.8 24.8  42.3 24.4 24.4
DesignQueue:   5   31    3     4   16    3     3   18    4     3   19    3
********************************************************************************



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--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #72 Ashby Avenue / College Avenue
********************************************************************************
Cycle (sec):         80       Critical Vol./Cap. (X):        1.016
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):    30.6
Optimal Cycle:      167       Level Of Service:                  C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include           Include          Include
Min. Green:  18   18   18    18   18   18    30   30   30     30   30   30
Lanes:        0 0  1! 0 0     0 0  1! 0 0     0 0  1! 0 0     0 0  1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     79  323   26   118  232   95    33  490   92     4  611  229
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  79  323   26   118  232   95    33  490   92     4  611  229
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:   87  355   29   130  255  104    36  538  101     4  671  252
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  87  355   29   130  255  104    36  538  101     4  671  252
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   87  355   29   130  255  104    36  538  101     4  671  252
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.83 0.83 0.83  0.72 0.72 0.72  0.91 0.91 0.91  0.96 0.96 0.96
Lanes:      0.18 0.76 0.06  0.27 0.52 0.21  0.05 0.80 0.15  0.01 0.72 0.27
Final Sat.:  292 1193   96   365  718  294    93 1377  258     9 1322  495
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.30 0.30 0.30  0.36 0.36 0.36  0.39 0.39 0.39  0.51 0.51 0.51
Crit Moves:                  ****                            ****
Green/Cycle: 0.38 0.38 0.38  0.45 0.45 0.45  0.53 0.53 0.53  0.53 0.53 0.53
Volume/Cap: 0.79 0.79 0.79  0.79 0.79 0.79  0.74 0.74 0.74  0.97 0.97 0.97
Delay/Veh:  30.9 30.9 30.9  25.6 25.6 25.6  20.4 20.4 20.4  40.5 40.5 40.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 30.9 30.9 30.9  25.6 25.6 25.6  20.4 20.4 20.4  40.5 40.5 40.5
DesignQueue:   3   10    1     3    7    3     1   12    2     0   16    6
********************************************************************************



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EXISTING AM              Thu Jun 19, 2003 17:21:32          Page 77-1
-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
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                              AM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #73 Ashby Avenue / Claremont Avenue
********************************************************************************
Cycle (sec):         80        Critical Vol./Cap. (X):        0.717
Loss Time (sec):     12 (Y+R =  6 sec) Average Delay (sec/veh):    22.0
Optimal Cycle:       72        Level Of Service:                 C
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            -----------|--------------||--------------||--------------||--------------|
Control:       Split Phase      Split Phase       Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   16   16   16     16   16   16     28   28   28     28   28   28
Lanes:         0    1    0  1   1    1    0  1   0    1    0  1   0    1    0  1
            -----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      35  288  153    321  272   59     43  504   13     90  637  429
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   35  288  153    321  272   59     43  504   13     90  637  429
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94   0.94 0.94 0.94   0.94 0.94 0.94   0.94 0.94 0.94
PHF Volume:    37  306  163    341  289   63     46  536   14     96  678  456
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   37  306  163    341  289   63     46  536   14     96  678  456
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    37  306  163    341  289   63     46  536   14     96  678  456
            -----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:  0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95
Lanes:       0.15 1.21 0.64   1.48 1.25 0.27   0.15 1.80 0.05   0.16 1.10 0.74
Final Sat.:   265 2184 1160   2666 2259  490    277 3249   84    281 1989 1340
            -----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.14 0.14 0.14   0.13 0.13 0.13   0.17 0.17 0.17   0.34 0.34 0.34
Crit Moves:       ****             ****             ****             ****
Green/Cycle: 0.20 0.20 0.20   0.20 0.20 0.20   0.45 0.45 0.45   0.45 0.45 0.45
Volume/Cap:  0.70 0.70 0.70   0.64 0.64 0.64   0.37 0.37 0.37   0.76 0.76 0.76
Delay/Veh:   32.9 32.9 32.9   30.7 30.7 30.7   12.3 12.3 12.3   17.4 17.4 17.4
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  32.9 32.9 32.9   30.7 30.7 30.7   12.3 12.3 12.3   17.4 17.4 17.4
DesignQueue:    1   11    6     12   11    2      1   14    0      3   18   12
********************************************************************************
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EXISTING AM              Thu Jun 19, 2003 17:21:32          Page 78-1
-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
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                              AM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #74 Tunnel Road / SR 13
********************************************************************************
Cycle (sec):         65        Critical Vol./Cap. (X):        0.792
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    15.9
Optimal Cycle:       56        Level Of Service:                 B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            -----------|--------------||--------------||--------------||--------------|
Control:        Protected        Protected       Split Phase      Split Phase
Rights:          Include          Include          Include            Ovl
Min. Green:    0    0    0      0    0    0      0    0    0      0    0    0
Lanes:         0    0    2  1   2    0    1  0   0    0    0  0   1    0    0  2
            -----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:       0 1293  435    487  608    0      0    0    0    205    0  307
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:    0 1293  435    487  608    0      0    0    0    205    0  307
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     0.88 0.88 0.88   0.88 0.88 0.88   0.88 0.88 0.88   0.88 0.88 0.88
PHF Volume:     0 1469  494    553  691    0      0    0    0    233    0  349
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:    0 1469  494    553  691    0      0    0    0    233    0  349
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:     0 1469  494    553  691    0      0    0    0    233    0  349
            -----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:  1.00 0.95 0.85   0.92 1.00 1.00   1.00 1.00 1.00   0.95 1.00 0.75
Lanes:       0.00 2.00 1.00   2.00 1.00 0.00   0.00 0.00 0.00   1.00 0.00 2.00
Final Sat.:     0 3610 1615   3502 1900    0      0    0    0   1805    0 2842
            -----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.41 0.31   0.16 0.36 0.00   0.00 0.00 0.00   0.13 0.00 0.12
Crit Moves:       ****             ****                              ****
Green/Cycle: 0.00 0.51 0.51   0.20 1.00 0.00   0.00 0.00 0.00   0.16 0.00 0.36
Volume/Cap:  0.00 0.79 0.60   0.79 0.36 0.00   0.00 0.00 0.00   0.79 0.00 0.34
Delay/Veh:    0.0 15.3 12.2   30.9  0.1  0.0    0.0  0.0  0.0   39.7  0.0 15.2
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:   0.0 15.3 12.2   30.9  0.1  0.0    0.0  0.0  0.0   39.7  0.0 15.2
DesignQueue:    0   28    9     17    0    0      0    0    0      7    0    8
********************************************************************************
```

```
                           UC Berkeley LRDP EIR
                           Existing Conditions
                              PM Peak Hour
```

```
                            Scenario Report
Scenario:              EXISTING PM

Command:               EXISTING PM
Volume:                EXISTING PM
Geometry:              EXISTING PM
Impact Fee:            Default Impact Fee
Trip Generation:       NO PROJECT
Trip Distribution:     Cumulative
Paths:                 Default Paths
Routes:                Default Routes
Configuration:         EXISTING PM
```

```
                           UC Berkeley LRDP EIR
                           Existing Conditions
                              PM Peak Hour
```

```
                        Turning Movement Report
                              NO PROJECT

Volume    Northbound      Southbound      Eastbound      Westbound    Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#1 Marin Avenue / San Pablo Avenue
Base   227 1022  114   169  659   18    18  656  137   145  736  154   4055
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total  227 1022  114   169  659   18    18  656  137   145  736  154   4055

#2 Marin Avenue / The Alameda
Base   316  322    1    43  178   77    50  534  193    17  480   69   2280
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total  316  322    1    43  178   77    50  534  193    17  480   69   2280

#3 Gilman Street / Sixth Street
Base   346   46  159    24   47   52    28  497  109    53  489   11   1861
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total  346   46  159    24   47   52    28  497  109    53  489   11   1861

#4 Gilman Street / San Pablo Avenue
Base   140 1057   87   126  830  112   174  345  155    40  233   82   3381
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total  140 1057   87   126  830  112   174  345  155    40  233   82   3381

#5 Rose Street / Shattuck Avenue
Base   159  641   14   112  444   26    69  253   49    29  214  228   2238
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total  159  641   14   112  444   26    69  253   49    29  214  228   2238

#6 Cedar Street / Martin Luther King Way
Base    53  614   65    30  541   12    20  297   57    68  296   65   2118
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total   53  614   65    30  541   12    20  297   57    68  296   65   2118

#7 Cedar Street / Shattuck Avenue
Base   138  795   56   144  619   72    86  275   67    59  341  150   2802
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total  138  795   56   144  619   72    86  275   67    59  341  150   2802

#8 Cedar Street / Oxford Street
Base    91  464   81    17  196   17    18  307   57    61  340   31   1680
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total   91  464   81    17  196   17    18  307   57    61  340   31   1680

#9 Cedar Street / Euclid Avenue
Base    90  226   29     7  127   44    51  180   49    18   91    0    912
Added    0    0    0     0    0    0     0    0    0     0    0    0      0
Total   90  226   29     7  127   44    51  180   49    18   91    0    912
```

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--------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                               Existing Conditions
                                 PM Peak Hour
--------------------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#10 Grizzly Peak Blvd / Centennial Drive
Base    162   65  250    33   30    8     3  159   45    22  111   25    913
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total   162   65  250    33   30    8     3  159   45    22  111   25    913

#11 Hearst Avenue / Shattuck Avenue
Base     34  715   63   117  537   54    67  232   20   122  321  136   2418
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total    34  715   63   117  537   54    67  232   20   122  321  136   2418

#12 Hearst Avenue / Oxford Avenue
Base     80  743  315    30  458   25    23  267  115   313  478   52   2899
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total    80  743  315    30  458   25    23  267  115   313  478   52   2899

#13 Hearst Avenue / Spruce Street
Base      0    0    0    11    0   48    34  579    0     0  792   13   1477
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total     0    0    0    11    0   48    34  579    0     0  792   13   1477

#14 Hearst Avenue / Arch Street / Le Conte Avenue
Base      0    0    0     6    0  135   146  439    0     0  668    6   1400
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total     0    0    0     6    0  135   146  439    0     0  668    6   1400

#15 Hearst Avenue / Scenic Avenue
Base      0    0    0     0    0  109     0  437    0     0  566   54   1166
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total     0    0    0     0    0  109     0  437    0     0  566   54   1166

#16 Hearst Avenue / Euclid Avenue
Base      4    0    1    57    0  115   120  307    0     2  503   23   1132
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total     4    0    1    57    0  115   120  307    0     2  503   23   1132

#17 Hearst Avenue / Le Roy Avenue
Base      0    0    0    12    0   56    38  355    0     0  523   21   1005
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total     0    0    0    12    0   56    38  355    0     0  523   21   1005

#18 Hearst Avenue / Gayley Road / LaLoma Avenue
Base    318  288   19     4  203   49    28   52  288    69  197   40   1555
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total   318  288   19     4  203   49    28   52  288    69  197   40   1555
```

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                              UC Berkeley LRDP EIR
                               Existing Conditions
                                 PM Peak Hour
--------------------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#19 Berkeley Way / Oxford Street
Base     48 1039    3     4  890   22    72    2   51    29   18   42   2220
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total    48 1039    3     4  890   22    72    2   51    29   18   42   2220

#20 University Avenue / Sixth Street
Base    343  353   48   101  239  465   163  827  212    42 1205   33   4031
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total   343  353   48   101  239  465   163  827  212    42 1205   33   4031

#21 University Avenue / San Pablo Avenue
Base    233  945   93   141  681   84    87  986  105    71  906  125   4457
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total   233  945   93   141  681   84    87  986  105    71  906  125   4457

#22 University Avenue / Martin Luther King Way
Base    282  902   78    46  702   77    80  679  134    71  727   81   3859
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total   282  902   78    46  702   77    80  679  134    71  727   81   3859

#23 University Avenue / Milvia Street
Base    127  218   44    13  102   74    47  649  108    22  651   33   2088
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total   127  218   44    13  102   74    47  649  108    22  651   33   2088

#24 University Avenue / SB Shattuck Avenue
Base      0    0    0    55  576  146   131  374  254    74  642  640   2892
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total     0    0    0    55  576  146   131  374  254    74  642  640   2892

#25 University Avenue / NB Shattuck Avenue
Base    938    0  208     0    0    0     0  454    0     0  433    0   2033
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total   938    0  208     0    0    0     0  454    0     0  433    0   2033

#26 University Avenue / Oxford Street
Base    278  771   16    32  835  106   306   39  330     9   37   40   2799
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total   278  771   16    32  835  106   306   39  330     9   37   40   2799

#27 Univeristy Drive (East Gate)  / Gayley Road
Base     59  552    0     0  505   52    41    0   81     0    0    0   1290
Added     0    0    0     0    0    0     0    0    0     0    0    0      0
Total    59  552    0     0  505   52    41    0   81     0    0    0   1290
```

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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour
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Volume   Northbound      Southbound       Eastbound       Westbound     Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#28 Addison Street / Oxford Street
Base    32 1006    0    0  952   28   10    0  114    0    0    0   2142
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   32 1006    0    0  952   28   10    0  114    0    0    0   2142

#29 Center Street / SB Shattuck Avenue
Base     0    0    0   41  790  126    0  104  179   29  160    0   1429
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0    0    0   41  790  126    0  104  179   29  160    0   1429

#30 Center Street / NB Shattuck Avenue
Base    50  982   86    0    0    0   81   55    0    0  139   58   1451
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   50  982   86    0    0    0   81   55    0    0  139   58   1451

#31 Center Street / Oxford Street
Base    87  998   24   19  980   67   33    6   84   37    9   16   2360
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   87  998   24   19  980   67   33    6   84   37    9   16   2360

#32 Stadium Rim Road / Gayley Road
Base     0  359   19  135  459    0   20    7   15   47    0  232   1293
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0  359   19  135  459    0   20    7   15   47    0  232   1293

#33 Allston Way / Oxford Street
Base    46 1002    0   26 1082   75   23    0  110    0    0    0   2364
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   46 1002    0   26 1082   75   23    0  110    0    0    0   2364

#34 Kittridge Street / Oxford Street / Fulton Street
Base    45  995    0    0 1108   96   51    0   69    0    0    0   2364
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   45  995    0    0 1108   96   51    0   69    0    0    0   2364

#35 Stadium Rim Road / Centennial Drive
Base     0   99  140  102   57    0    0    0    0  204    0  146    748
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0   99  140  102   57    0    0    0    0  204    0  146    748

#36 Bancroft Way / Shattuck Avenue
Base    30 1186    0    0  949   23    1    0   38  258   97  111   2693
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   30 1186    0    0  949   23    1    0   38  258   97  111   2693
```

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                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
Volume   Northbound      Southbound       Eastbound       Westbound     Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#37 Bancroft Way / Fulton Street
Base    18  164    0    0 1066  165    0    0    0   12  287  898   2610
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   18  164    0    0 1066  165    0    0    0   12  287  898   2610

#38 Bancroft Way / Ellsworth Street
Base   348   11    0    0    0  100    0    0    0    0  877    6   1342
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total  348   11    0    0    0  100    0    0    0    0  877    6   1342

#39 Bancroft Way / Dana Street
Base     0    0    0    0    0    0    0    0    0  282  873    0   1155
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0    0    0    0    0    0    0    0    0  282  873    0   1155

#40 Bancroft Way / Telegraph Avenue
Base   495    0    0    0    0    0    0    0    0    0  675    0   1170
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total  495    0    0    0    0    0    0    0    0    0  675    0   1170

#41 Bancroft Way / Bowditch Street
Base   191    0    0    0    0    0    0    0    0   99  494    0    784
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total  191    0    0    0    0    0    0    0    0   99  494    0    784

#42 Bancroft Way / College Avenue
Base   371    0    0    0    0    0    0    0    0   83  226    0    680
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total  371    0    0    0    0    0    0    0    0   83  226    0    680

#43 Bancroft Way / Piedmont Avenue
Base   152  439    0    0  357  159    0    0    0    0    0    0   1107
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total  152  439    0    0  357  159    0    0    0    0    0    0   1107

#44 Durant Avenue / Shattuck Avenue
Base    69 1216  120   88 1099   51    9   72   55    0    0    0   2779
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total   69 1216  120   88 1099   51    9   72   55    0    0    0   2779

#45 Durant Avenue / Fulton Street
Base     0    0    0  527  760    0  137  219   33    0    0    0   1676
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0    0    0  527  760    0  137  219   33    0    0    0   1676
```

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
```

| Volume | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total |
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#46 Durant Avenue / Telegraph Avenue													
Base	0	362	119	0	0	0	202	690	0	0	0	0	1373
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	362	119	0	0	0	202	690	0	0	0	0	1373
#47 Durant Avenue / College Avenue													
Base	0	189	62	16	56	0	127	268	202	0	0	0	920
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	189	62	16	56	0	127	268	202	0	0	0	920
#48 Durant Avenue / Piedmont Avenue													
Base	0	398	0	0	427	0	179	0	197	0	0	0	1201
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	398	0	0	427	0	179	0	197	0	0	0	1201
#49 Channing Way / Shattuck Avenue													
Base	83	1279	94	19	1089	49	18	76	81	144	97	106	3135
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	83	1279	94	19	1089	49	18	76	81	144	97	106	3135
#50 Channing Way / Fulton Street													
Base	0	0	0	48	686	61	0	133	38	15	257	0	1238
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	48	686	61	0	133	38	15	257	0	1238
#51 Channing Way / Telegraph Avenue													
Base	86	410	41	0	0	0	23	144	0	0	227	46	977
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	86	410	41	0	0	0	23	144	0	0	227	46	977
#52 Channing Way / College Avenue													
Base	31	189	41	7	206	24	5	95	58	124	141	47	968
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	31	189	41	7	206	24	5	95	58	124	141	47	968
#53 Haste Street / Shattuck Avenue													
Base	104	1277	0	0	1208	88	0	0	0	268	336	152	3433
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	104	1277	0	0	1208	88	0	0	0	268	336	152	3433
#54 Haste Street / Fulton Street													
Base	0	0	0	0	580	154	0	0	0	50	604	0	1388
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	580	154	0	0	0	50	604	0	1388

| Volume | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total |
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#55 Haste Street / Telegraph Avenue													
Base	186	476	0	0	0	0	0	0	0	0	470	57	1189
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	186	476	0	0	0	0	0	0	0	0	470	57	1189
#56 Haste Street / College Avenue													
Base	88	236	0	0	337	56	0	0	0	90	244	29	1080
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	88	236	0	0	337	56	0	0	0	90	244	29	1080
#57 Dwight Way / Martin Luther King Way													
Base	71	821	60	113	860	272	49	444	111	0	0	0	2801
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	71	821	60	113	860	272	49	444	111	0	0	0	2801
#58 Dwight Way / Shattuck Avenue													
Base	0	1273	123	133	1390	0	77	426	200	0	0	0	3622
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1273	123	133	1390	0	77	426	200	0	0	0	3622
#59 Dwight Way / Fulton Street													
Base	0	0	62	631	0	0	0	664	15	0	0	0	1372
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	62	631	0	0	0	664	15	0	0	0	1372
#60 Dwight Way / Telegraph Avenue													
Base	0	590	149	0	0	0	130	671	813	0	0	0	2353
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	590	149	0	0	0	130	671	813	0	0	0	2353
#61 Dwight Way / College Avenue													
Base	0	294	52	49	374	0	34	483	129	0	0	0	1415
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	294	52	49	374	0	34	483	129	0	0	0	1415
#62 Dwight Way / Piedmont Avenue / Warring Street													
Base	0	527	1	8	353	0	132	162	307	53	0	112	1655
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	527	1	8	353	0	132	162	307	53	0	112	1655
#63 Dwight Avenue / Prospect Street													
Base	0	0	0	27	0	165	187	128	0	0	93	16	616
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	27	0	165	187	128	0	0	93	16	616

UC Berkeley LRDP EIR
Existing Conditions
PM Peak Hour

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#64 Adeline Street / Ward Avenue / Shattuck Avenue

Base	0	690	5	0	957	825	903	0	2	0	0	0	3382
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	690	5	0	957	825	903	0	2	0	0	0	3382

#65 Derby Street / Warring Street

Base	0	0	0	765	0	30	7	62	0	0	75	780	1719
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	765	0	30	7	62	0	0	75	780	1719

#66 Derby Street / Claremont Blvd.

Base	4	0	225	0	0	0	0	872	11	31	741	0	1884
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	0	225	0	0	0	0	872	11	31	741	0	1884

#67 Ashby Avenue / Seventh Street

Base	134	404	68	107	270	476	263	546	113	98	774	31	3284
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	134	404	68	107	270	476	263	546	113	98	774	31	3284

#68 Ashby Avenue / San Pablo Avenue

Base	162	999	79	185	873	113	86	592	170	20	612	143	4034
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	162	999	79	185	873	113	86	592	170	20	612	143	4034

#69 Ashby Avenue / Adeline Street

Base	92	693	85	31	700	169	135	491	39	68	547	39	3089
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	92	693	85	31	700	169	135	491	39	68	547	39	3089

#70 Ashby Avenue / Shattuck Avenue

Base	52	556	30	200	585	56	33	536	40	32	541	176	2837
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	52	556	30	200	585	56	33	536	40	32	541	176	2837

#71 Ashby Avenue / Telegraph Avenue

Base	210	675	75	176	902	63	68	531	184	148	642	99	3773
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	210	675	75	176	902	63	68	531	184	148	642	99	3773

#72 Ashby Avenue / College Avenue

Base	75	293	68	159	279	58	15	683	87	10	466	151	2344
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	75	293	68	159	279	58	15	683	87	10	466	151	2344

UC Berkeley LRDP EIR
Existing Conditions
PM Peak Hour

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#73 Ashby Avenue / Claremont Avenue

Base	45	373	189	432	285	49	47	592	5	66	504	232	2819
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	45	373	189	432	285	49	47	592	5	66	504	232	2819

#74 Tunnel Road / SR 13

Base	0	1130	256	534	1095	0	0	0	0	128	0	155	3298
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1130	256	534	1095	0	0	0	0	128	0	155	3298

UC Berkeley LRDP EIR
Existing Conditions
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base Del/ Veh	V/ C LOS	Future Del/ Veh	V/ C LOS	Change in
# 1 Marin Avenue / San Pablo Avenu	D 50.3	0.940	D 50.3	0.940	+ 0.000 D/V
# 2 Marin Avenue / The Alameda	B 14.9	0.640	B 14.9	0.640	+ 0.000 D/V
# 3 Gilman Street / Sixth Street	E 74.8	0.934	E 74.8	0.934	+ 0.000 D/V
# 4 Gilman Street / San Pablo Aven	D 42.2	0.778	D 42.2	0.778	+ 0.000 D/V
# 5 Rose Street / Shattuck Avenue	B 11.5	0.554	B 11.5	0.554	+ 0.000 D/V
# 6 Cedar Street / Martin Luther K	C 25.1	0.844	C 25.1	0.844	+ 0.000 D/V
# 7 Cedar Street / Shattuck Avenue	B 13.9	0.649	B 13.9	0.649	+ 0.000 D/V
# 8 Cedar Street / Oxford Street	C 21.8	0.791	C 21.8	0.791	+ 0.000 D/V
# 9 Cedar Street / Euclid Avenue	B 11.8	0.479	B 11.8	0.479	+ 0.000 D/V
# 10 Grizzly Peak Blvd / Centennial	C 17.7	0.796	C 17.7	0.796	+ 0.000 V/C
# 11 Hearst Avenue / Shattuck Avenu	B 14.5	0.555	B 14.5	0.555	+ 0.000 D/V
# 12 Hearst Avenue / Oxford Avenue	D 52.8	0.973	D 52.8	0.973	+ 0.000 D/V
# 13 Hearst Avenue / Spruce Street	C 2.4	0.000	C 2.4	0.000	+ 0.000 V/C
# 14 Hearst Avenue / Arch Street /	B 1.6	0.000	B 1.6	0.000	+ 0.000 V/C
# 15 Hearst Avenue / Scenic Avenue	B 0.7	0.000	B 0.7	0.000	+ 0.000 V/C
# 16 Hearst Avenue / Euclid Avenue	B 16.9	0.572	B 16.9	0.572	+ 0.000 D/V
# 17 Hearst Avenue / Le Roy Avenue	C 2.4	0.000	C 2.4	0.000	+ 0.000 V/C
# 18 Hearst Avenue / Gayley Road /	C 24.3	0.871	C 24.3	0.871	+ 0.000 D/V
# 19 Berkeley Way / Oxford Street	A 7.4	0.447	A 7.4	0.447	+ 0.000 D/V
# 20 University Avenue / Sixth Stre	F 91.2	1.072	F 91.2	1.072	+ 0.000 D/V
# 21 University Avenue / San Pablo	F 152.6	0.880	F 152.6	0.880	+ 0.000 D/V
# 22 University Avenue / Martin Lut	C 31.8	0.776	C 31.8	0.776	+ 0.000 D/V
# 23 University Avenue / Milvia Str	B 16.6	0.474	B 16.6	0.474	+ 0.000 D/V

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UC Berkeley LRDP EIR
Existing Conditions
PM Peak Hour

Intersection	Base Del/ Veh	V/ C LOS	Future Del/ Veh	V/ C LOS	Change in
# 24 University Avenue / SB Shattuc	B 18.2	0.711	B 18.2	0.711	+ 0.000 D/V
# 25 University Avenue / NB Shattuc	B 17.1	0.478	B 17.1	0.478	+ 0.000 D/V
# 26 University Avenue / Oxford Str	B 18.2	0.693	B 18.2	0.693	+ 0.000 D/V
# 27 Univeristy Drive (East Gate)	C 1.6	0.000	C 1.6	0.000	+ 0.000 V/C
# 28 Addison Street / Oxford Street	C 0.8	0.000	C 0.8	0.000	+ 0.000 V/C
# 29 Center Street / SB Shattuck Av	B 14.4	0.494	B 14.4	0.494	+ 0.000 D/V
# 30 Center Street / NB Shattuck Av	A 7.6	0.440	A 7.6	0.440	+ 0.000 D/V
# 31 Center Street / Oxford Street	A 7.5	0.441	A 7.5	0.441	+ 0.000 D/V
# 32 Stadium Rim Road / Gayley Road	D 34.7	0.986	D 34.7	0.986	+ 0.000 V/C
# 33 Allston Way / Oxford Street	D 5.0	0.000	D 5.0	0.000	+ 0.000 V/C
# 34 Kittridge Street / Oxford Stre	F 6.1	0.000	F 6.1	0.000	+ 0.000 V/C
# 35 Stadium Rim Road / Centennial	B 12.2	0.579	B 12.2	0.579	+ 0.000 V/C
# 36 Bancroft Way / Shattuck Avenue	B 12.7	0.670	B 12.7	0.670	+ 0.000 D/V
# 37 Bancroft Way / Fulton Street	A 6.7	0.409	A 6.7	0.409	+ 0.000 D/V
# 38 Bancroft Way / Ellsworth Stree	C 4.0	0.000	C 4.0	0.000	+ 0.000 V/C
# 39 Bancroft Way / Dana Street	A 0.0	0.000	A 0.0	0.000	+ 0.000 V/C
# 40 Bancroft Way / Telegraph Avenu	B 17.8	0.344	B 17.8	0.344	+ 0.000 D/V
# 41 Bancroft Way / Bowditch Street	B 11.5	0.456	B 11.5	0.456	+ 0.000 V/C
# 42 Bancroft Way / College Avenue	B 12.3	0.569	B 12.3	0.569	+ 0.000 V/C
# 43 Bancroft Way / Piedmont Avenue	C 20.9	0.825	C 20.9	0.825	+ 0.000 V/C
# 44 Durant Avenue / Shattuck Avenu	B 14.0	0.643	B 14.0	0.643	+ 0.000 D/V
# 45 Durant Avenue / Fulton Street	A 7.0	0.372	A 7.0	0.372	+ 0.000 D/V
# 46 Durant Avenue / Telegraph Aven	B 13.1	0.361	B 13.1	0.361	+ 0.000 D/V
# 47 Durant Avenue / College Avenue	B 13.4	0.335	B 13.4	0.335	+ 0.000 D/V
# 48 Durant Avenue / Piedmont Avenu	C 17.6	0.714	C 17.6	0.714	+ 0.000 V/C

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-------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                         Existing Conditions
                          PM Peak Hour
-------------------------------------------------------------------
Intersection                        Base          Future       Change
                                  Del/   V/     Del/   V/        in
                              LOS Veh    C   LOS Veh   C

# 49 Channing Way / Shattuck Avenue  A   6.0 0.759   A   6.0 0.759  + 0.000 D/V

# 50 Channing Way / Fulton Street    C  18.0 0.710   C  18.0 0.710  + 0.000 V/C

# 51 Channing Way / Telegraph Avenu  B  12.7 0.384   B  12.7 0.384  + 0.000 D/V

# 52 Channing Way / College Avenue   B  10.4 0.464   B  10.4 0.464  + 0.000 D/V

# 53 Haste Street / Shattuck Avenue  A  10.0 0.704   A  10.0 0.704  + 0.000 D/V

# 54 Haste Street / Fulton Street    B  18.9 0.494   B  18.9 0.494  + 0.000 D/V

# 55 Haste Street / Telegraph Avenu  B  12.5 0.416   B  12.5 0.416  + 0.000 D/V

# 56 Haste Street / College Avenue   A   9.3 0.405   A   9.3 0.405  + 0.000 D/V

# 57 Dwight Way / Martin Luther Kin  B  17.6 0.871   B  17.6 0.871  + 0.000 D/V

# 58 Dwight Way / Shattuck Avenue    B  12.9 0.841   B  12.9 0.841  + 0.000 D/V

# 59 Dwight Way / Fulton Street      B  14.0 0.554   B  14.0 0.554  + 0.000 D/V

# 60 Dwight Way / Telegraph Avenue   C  20.2 0.851   C  20.2 0.851  + 0.000 D/V

# 61 Dwight Way / College Avenue     B  15.2 0.535   B  15.2 0.535  + 0.000 D/V

# 62 Dwight Way / Piedmont Avenue /  B  13.1 0.417   B  13.1 0.417  + 0.000 D/V

# 63 Dwight Avenue / Prospect Stree  B   5.7 0.000   B   5.7 0.000  + 0.000 V/C

# 64 Adeline Street / Ward Avenue /  C  24.4 0.907   C  24.4 0.907  + 0.000 D/V

# 65 Derby Street / Warring Street   F 185.8 1.399   F 185.8 1.399  + 0.000 V/C

# 66 Derby Street / Claremont Blvd.  B  15.8 0.718   B  15.8 0.718  + 0.000 D/V

# 67 Ashby Avenue / Seventh Street   D  51.8 0.958   D  51.8 0.958  + 0.000 D/V

# 68 Ashby Avenue / San Pablo Avenu  C  31.4 0.739   C  31.4 0.739  + 0.000 D/V

# 69 Ashby Avenue / Adeline Street   D  36.7 0.522   D  36.7 0.522  + 0.000 D/V

# 70 Ashby Avenue / Shattuck Avenue  C  30.1 0.746   C  30.1 0.746  + 0.000 D/V

# 71 Ashby Avenue / Telegraph Avenu  C  25.6 0.925   C  25.6 0.925  + 0.000 D/V

# 72 Ashby Avenue / College Avenue   C  28.9 0.960   C  28.9 0.960  + 0.000 D/V
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-------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                         Existing Conditions
                          PM Peak Hour
-------------------------------------------------------------------
Intersection                        Base          Future       Change
                                  Del/   V/     Del/   V/        in
                              LOS Veh    C   LOS Veh   C
# 73 Ashby Avenue / Claremont Avenu  C  22.2 0.658   C  22.2 0.658  + 0.000 D/V

# 74 Tunnel Road / SR 13             B  13.6 0.785   B  13.6 0.785  + 0.000 D/V
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-----------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour
-----------------------------------------------------------------------------
                 Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
*****************************************************************************
Intersection #1 Marin Avenue / San Pablo Avenue
*****************************************************************************
Cycle (sec):        90          Critical Vol./Cap. (X):      0.940
Loss Time (sec):    16 (Y+R =  4 sec) Average Delay (sec/veh):  50.3
Optimal Cycle:     125          Level Of Service:              D
*****************************************************************************
Approach:     North Bound    South Bound     East Bound     West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Protected       Protected       Protected       Protected
Rights:         Include         Include         Include         Include
Min. Green:  0    0    0     0    0    0     0    0    0     0    0    0
Lanes:       1 0  1  1 0     1 0  1  1 0     1 0  1  1 0     1 0  1  1 0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:    227 1022  114   169  659   18    18  656  137   145  736  154
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 227 1022  114   169  659   18    18  656  137   145  736  154
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:  244 1099  123   182  709   19    19  705  147   156  791  166
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 244 1099  123   182  709   19    19  705  147   156  791  166
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  244 1099  123   182  709   19    19  705  147   156  791  166
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.94 0.94  0.95 0.95 0.95  0.95 0.93 0.93  0.95 0.93 0.93
Lanes:      1.00 1.80 0.20  1.00 1.95 0.05  1.00 1.65 0.35  1.00 1.65 0.35
Final Sat.: 1805 3199  357  1805 3500   96  1805 2909  607  1805 2908  608
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.14 0.34 0.34  0.10 0.20 0.20  0.01 0.24 0.24  0.09 0.27 0.27
Crit Moves:       ****           ****                ****       ****
Green/Cycle: 0.17 0.33 0.33  0.09 0.33 0.33  0.10 0.30 0.30  0.10 0.30 0.30
Volume/Cap: 0.80 1.04 1.04  1.09 0.61 0.61  0.11 0.81 0.81  0.86 0.91 0.91
Delay/Veh:  49.8 67.7 67.7 137.2 26.3 26.3  37.1 33.8 33.8  72.3 41.5 41.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 49.8 67.7 67.7 137.2 26.3 26.3  37.1 33.8 33.8  72.3 41.5 41.5
DesignQueue:  10   39    4     8   25    1     1   26    5     7   29    6
*****************************************************************************
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-----------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour
-----------------------------------------------------------------------------
                 Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
*****************************************************************************
Intersection #2 Marin Avenue / The Alameda
*****************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):      0.640
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):  14.9
Optimal Cycle:      56          Level Of Service:              B
*****************************************************************************
Approach:     North Bound    South Bound     East Bound     West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  25   25   25    25   25   25    23   23   23    23   23   23
Lanes:       0 1  0  1 0     0 1  0  1 0     0 1  0  1 0     0 1  0  1 0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    316  322    1    43  178   77    50  534  193    17  480   69
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 316  322    1    43  178   77    50  534  193    17  480   69
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:  347  354    1    47  196   85    55  587  212    19  527   76
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 347  354    1    47  196   85    55  587  212    19  527   76
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  347  354    1    47  196   85    55  587  212    19  527   76
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.64 0.64 0.64  0.74 0.74 0.74  0.81 0.81 0.81  0.86 0.86 0.86
Lanes:      0.99 1.00 0.01  0.29 1.19 0.52  0.13 1.37 0.50  0.06 1.70 0.24
Final Sat.: 1205 1228    4   408 1689  731   197 2103  760    98 2772  398
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.29 0.29 0.29  0.12 0.12 0.12  0.28 0.28 0.28  0.19 0.19 0.19
Crit Moves:       ****           ****           ****
Green/Cycle: 0.42 0.42 0.42  0.42 0.42 0.42  0.50 0.50 0.50  0.50 0.50 0.50
Volume/Cap: 0.68 0.68 0.68  0.27 0.27 0.27  0.56 0.56 0.56  0.38 0.38 0.38
Delay/Veh:  20.2 20.2 20.2  13.8 13.8 13.8  13.6 13.6 13.6  11.5 11.5 11.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 20.2 20.2 20.2  13.8 13.8 13.8  13.6 13.6 13.6  11.5 11.5 11.5
DesignQueue:   8    8    0     1    4    2     1   12    4     0   11    2
*****************************************************************************
```

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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                         Existing Conditions
                          PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #3 Gilman Street / Sixth Street
********************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):        0.934
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   74.8
Optimal Cycle:      99          Level Of Service:                 E
********************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  19   19   19    19   19   19    19   19   19    19   19   19
Lanes:        0  0  1! 0  0   0  1  0  1  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:     346   46  159    24   47   52    28  497  109    53  489   11
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  346   46  159    24   47   52    28  497  109    53  489   11
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:   372   49  171    26   51   56    30  534  117    57  526   12
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  372   49  171    26   51   56    30  534  117    57  526   12
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   372   49  171    26   51   56    30  534  117    57  526   12
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.70 0.70 0.70  0.78 0.78 0.78  0.94 0.94 0.94  0.90 0.90 0.90
Lanes:       0.63 0.08 0.29  0.39 0.76 0.85  0.04 0.79 0.17  0.10 0.88 0.02
Final Sat.:   832  111  383   575 1126 1246    79 1406  308   164 1509   34
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.45 0.45 0.45  0.04 0.04 0.04  0.38 0.38 0.38  0.35 0.35 0.35
Crit Moves:       ****                            ****
Green/Cycle: 0.31 0.31 0.31  0.31 0.31 0.31  0.63 0.63 0.63  0.63 0.63 0.63
Volume/Cap:  1.42 1.42 1.42  0.14 0.14 0.14  0.60 0.60 0.60  0.55 0.55 0.55
Delay/Veh:  227.5  228 227.5 17.6 17.6 17.6  10.2 10.2 10.2   9.5  9.5  9.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 227.5  228 227.5 17.6 17.6 17.6  10.2 10.2 10.2   9.5  9.5  9.5
DesignQueue:   11    1    5     1    1    2     0    8    2     1    8    0
********************************************************************************
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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                         Existing Conditions
                          PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #4 Gilman Street / San Pablo Avenue
********************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):        0.778
Loss Time (sec):    12 (Y+R =  5 sec) Average Delay (sec/veh):   42.2
Optimal Cycle:      82          Level Of Service:                 D
********************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   4   35   35     4   35   35    31   31   31    31   31   31
Lanes:        1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:     140 1057   87   126  830  112   174  345  155    40  233   82
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  140 1057   87   126  830  112   174  345  155    40  233   82
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:   149 1124   93   134  883  119   185  367  165    43  248   87
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  149 1124   93   134  883  119   185  367  165    43  248   87
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   149 1124   93   134  883  119   185  367  165    43  248   87
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.94 0.94  0.95 0.93 0.93  0.59 0.59 0.59  0.80 0.80 0.80
Lanes:       1.00 1.85 0.15  1.00 1.76 0.24  0.52 1.02 0.46  0.11 0.66 0.23
Final Sat.:  1805 3299  272  1805 3124  421   580 1150  516   172  999  352
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.34 0.34  0.07 0.28 0.28  0.32 0.32 0.32  0.25 0.25 0.25
Crit Moves: ****                 ****             ****
Green/Cycle: 0.15 0.35 0.35  0.15 0.37 0.37  0.37 0.37 0.37  0.37 0.37 0.37
Volume/Cap:  0.55 0.97 0.97  0.50 0.77 0.77  0.87 0.87 0.87  0.68 0.68 0.68
Delay/Veh:   47.2 52.0 52.0  45.4 32.7 32.7  42.2 42.2 42.2  33.4 33.4 33.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  47.2 52.0 52.0  45.4 32.7 32.7  42.2 42.2 42.2  33.4 33.4 33.4
DesignQueue:    7   44    4     6   33    4     7   13    6     2    9    3
********************************************************************************
```

                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour

                     Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #5 Rose Street / Shattuck Avenue
****
Cycle (sec):   70   Critical Vol./Cap. (X):   0.554
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   11.5
Optimal Cycle: 52   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 17   17   17   17   17   17   27   27   27   27   27   27
Lanes: 1 0 1 1 0   1 0 1 1 0   0 1 0 0 1   0 0 1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 159 641   14   112 444   26   69 253   49   29 214 228
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 159 641   14   112 444   26   69 253   49   29 214 228
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 171 689   15   120 477   28   74 272   53   31 230 245
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 171 689   15   120 477   28   74 272   53   31 230 245
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 171 689   15   120 477   28   74 272   53   31 230 245
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.45 0.95 0.95 0.34 0.94 0.94 0.81 0.81 0.85 0.90 0.90 0.90
Lanes: 1.00 1.96 0.04 1.00 1.89 0.11 0.21 0.79 1.00 0.06 0.45 0.49
Final Sat.: 853 3522   77   652 3383 198   328 1203 1615   106 780 831
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.20 0.20 0.20 0.18 0.14 0.14 0.23 0.23 0.03 0.30 0.30 0.30
Crit Moves: ****   ****
Green/Cycle: 0.58 0.58 0.58 0.58 0.58 0.58 0.42 0.42 0.42 0.42 0.42 0.42
Volume/Cap: 0.35 0.34 0.34 0.32 0.24 0.24 0.54 0.54 0.08 0.70 0.70 0.70
Delay/Veh: 8.2 7.8 7.8   8.1 7.3 7.3 16.0 16.0 12.2 19.7 19.7 19.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.2 7.8 7.8   8.1 7.3 7.3 16.0 16.0 12.2 19.7 19.7 19.7
DesignQueue: 3   12   0   2   8   0   2   6   1   1   5   6
****

                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour

                     Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #6 Cedar Street / Martin Luther King Way
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.844
Loss Time (sec):   8 (Y+R = 5 sec) Average Delay (sec/veh):   25.1
Optimal Cycle: 66   Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 20   20   20   20   20   20   20   20   20   20   20   20
Lanes: 0 0 1! 0 0   0 0 1! 0 0   0 0 1! 0 0   0 0 1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 53 614   65   30 541   12   20 297   57   68 296   65
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 53 614   65   30 541   12   20 297   57   68 296   65
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 56 646   68   32 569   13   21 313   60   72 312   68
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 56 646   68   32 569   13   21 313   60   72 312   68
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   56 646   68   32 569   13   21 313   60   72 312   68
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.94 0.94 0.94 0.94 0.94 0.94 0.80 0.80 0.80
Lanes: 0.07 0.84 0.09 0.05 0.93 0.02 0.05 0.80 0.15 0.16 0.69 0.15
Final Sat.: 126 1464 155   92 1663   37   96 1425 274   240 1043 229
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.44 0.44 0.44 0.34 0.34 0.34 0.22 0.22 0.22 0.30 0.30 0.30
Crit Moves: ****   ****
Green/Cycle: 0.54 0.54 0.54 0.54 0.54 0.54 0.31 0.31 0.31 0.31 0.31 0.31
Volume/Cap: 0.82 0.82 0.82 0.64 0.64 0.64 0.71 0.71 0.71 0.97 0.97 0.97
Delay/Veh: 16.6 16.6 16.6 10.6 10.6 10.6 27.6 27.6 27.6 57.2 57.2 57.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.6 16.6 16.6 10.6 10.6 10.6 27.6 27.6 27.6 57.2 57.2 57.2
DesignQueue: 1   12   1   1   10   0   1   8   2   2   8   2
****

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #7 Cedar Street / Shattuck Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.649
Loss Time (sec):      8 (Y+R =  5 sec) Average Delay (sec/veh):    13.9
Optimal Cycle:       50          Level Of Service:                   B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   20   20   20    20   20   20    22   22   22    22   22   22
Lanes:         1 0  1  1 0    1 0  1  1 0    1 0  0  1 0    1 0  0  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      138  795   56   144  619   72    86  275   67    59  341  150
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   138  795   56   144  619   72    86  275   67    59  341  150
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:    152  874   62   158  680   79    95  302   74    65  375  165
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   152  874   62   158  680   79    95  302   74    65  375  165
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    152  874   62   158  680   79    95  302   74    65  375  165
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.36 0.94 0.94  0.31 0.93 0.93  0.18 0.97 0.97  0.36 0.95 0.95
Lanes:        1.00 1.87 0.13  1.00 1.79 0.21  1.00 0.80 0.20  1.00 0.69 0.31
Final Sat.:    678 3339  235   583 3182  370   346 1483  361   678 1259  554
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.22 0.26 0.26  0.27 0.21 0.21  0.27 0.20 0.20  0.10 0.30 0.30
Crit Moves:             ****            ****            ****            ****
Green/Cycle:  0.53 0.53 0.53  0.53 0.53 0.53  0.34 0.34 0.34  0.34 0.34 0.34
Volume/Cap:   0.42 0.49 0.49  0.51 0.40 0.40  0.81 0.60 0.60  0.28 0.88 0.88
Delay/Veh:     5.9  3.3  3.3   8.3  2.9  2.9  62.6 22.1 22.1  18.8 36.7 36.7
User DelAdj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:    5.9  3.3  3.3   8.3  2.9  2.9  62.6 22.1 22.1  18.8 36.7 36.7
DesignQueue:     3   16    1     3   12    1     2    8    2     2   10    4
********************************************************************************
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                              UC Berkeley LRDP EIR
                              Existing Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #8 Cedar Street / Oxford Street
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.791
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    21.8
Optimal Cycle:       56          Level Of Service:                   C
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   16   16   16    16   16   16    16   16   16    16   16   16
Lanes:         0 0  0  1! 0    0 0  0  1! 0    0 0  0  1! 0    0 0  0  1! 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       91  464   81    17  196   17    18  307   57    61  340   31
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    91  464   81    17  196   17    18  307   57    61  340   31
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:    100  510   89    19  215   19    20  337   63    67  374   34
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   100  510   89    19  215   19    20  337   63    67  374   34
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    100  510   89    19  215   19    20  337   63    67  374   34
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.90 0.90 0.90  0.93 0.93 0.93  0.95 0.95 0.95  0.88 0.88 0.88
Lanes:        0.14 0.73 0.13  0.07 0.86 0.07  0.05 0.80 0.15  0.14 0.79 0.07
Final Sat.:    244 1244  217   131 1513  131    85 1453  270   236 1318  120
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.41 0.41 0.41  0.14 0.14 0.14  0.23 0.23 0.23  0.28 0.28 0.28
Crit Moves:     ****            ****            ****            ****
Green/Cycle:  0.49 0.49 0.49  0.49 0.49 0.49  0.38 0.38 0.38  0.38 0.38 0.38
Volume/Cap:   0.84 0.84 0.84  0.29 0.29 0.29  0.61 0.61 0.61  0.75 0.75 0.75
Delay/Veh:    24.5 24.5 24.5  10.8 10.8 10.8  20.3 20.3 20.3  25.2 25.2 25.2
User DelAdj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   24.5 24.5 24.5  10.8 10.8 10.8  20.3 20.3 20.3  25.2 25.2 25.2
DesignQueue:     2   10    2     0    4    0     0    8    1     2    9    1
********************************************************************************
```

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 PM Peak Hour
--------------------------------------------------------------------------------
                        Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #9 Cedar Street / Euclid Avenue
********************************************************************************
Cycle (sec):          60          Critical Vol./Cap. (X):          0.479
Loss Time (sec):       8 (Y+R =  5 sec) Average Delay (sec/veh):    11.8
Optimal Cycle:        42          Level Of Service:                   B
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           -----------|---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   17   17   17    17   17   17    17   17   17    17   17    0
Lanes:         0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  0
           -----------|---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      90  226   29     7  127   44    51  180   49    18   91    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   90  226   29     7  127   44    51  180   49    18   91    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90
PHF Volume:   100  251   32     8  141   49    57  200   54    20  101    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  100  251   32     8  141   49    57  200   54    20  101    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   100  251   32     8  141   49    57  200   54    20  101    0
           -----------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.86 0.86 0.86  0.95 0.95 0.95  0.90 0.90 0.90  0.93 0.93 1.00
Lanes:       0.26 0.66 0.08  0.04 0.71 0.25  0.18 0.65 0.17  0.17 0.83 0.00
Final Sat.:   427 1072  138    71 1291  447   313 1105  301   291 1470    0
           -----------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.23 0.23 0.23  0.11 0.11 0.11  0.18 0.18 0.18  0.07 0.07 0.00
Crit Moves:       ****                             ****
Green/Cycle: 0.49 0.49 0.49  0.49 0.49 0.49  0.38 0.38 0.38  0.38 0.38 0.00
Volume/Cap:  0.48 0.48 0.48  0.22 0.22 0.22  0.48 0.48 0.48  0.18 0.18 0.00
Delay/Veh:   10.7 10.7 10.7   8.9  8.9  8.9  14.7 14.7 14.7  12.6 12.6  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  10.7 10.7 10.7   8.9  8.9  8.9  14.7 14.7 14.7  12.6 12.6  0.0
DesignQueue:    2    4    1     0    2    1     1    4    1     0    2    0
********************************************************************************
```

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                 PM Peak Hour
--------------------------------------------------------------------------------
                        Level Of Service Computation Report
               2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #10 Grizzly Peak Blvd / Centennial Drive
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):          0.796
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    17.7
Optimal Cycle:         0          Level Of Service:                   C
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           -----------|---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
           -----------|---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:     162   65  250    33   30    8     3  159   45    22  111   25
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  162   65  250    33   30    8     3  159   45    22  111   25
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.85 0.85 0.85  0.85 0.85 0.85  0.85 0.85 0.85  0.85 0.85 0.85
PHF Volume:   191   76  294    39   35    9     4  187   53    26  131   29
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  191   76  294    39   35    9     4  187   53    26  131   29
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   191   76  294    39   35    9     4  187   53    26  131   29
           -----------|---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:       0.34 0.14 0.52  0.47 0.42 0.11  0.01 0.77 0.22  0.14 0.70 0.16
Final Sat.:   239   96  370   248  226   60     8  445  126    77  389   88
           -----------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.80 0.80 0.80  0.16 0.16 0.16  0.42 0.42 0.42  0.34 0.34 0.34
Crit Moves:       **** ****                 ****                      ****
Delay/Veh:   23.3 23.3 23.3   9.9  9.9  9.9  12.3 12.3 12.3  11.5 11.5 11.5
Delay Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  23.3 23.3 23.3   9.9  9.9  9.9  12.3 12.3 12.3  11.5 11.5 11.5
LOS by Move:   C    C    C     A    A    A     B    B    B     B    B    B
ApproachDel:      23.3             9.9            12.3             11.5
Delay Adj:        1.00             1.00           1.00             1.00
ApprAdjDel:       23.3             9.9            12.3             11.5
LOS by Appr:       C                A              B                B
********************************************************************************
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-------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
-------------------------------------------------------------------------------
                        Level Of Service Computation Report
                   2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #11 Hearst Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):         0.555
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   14.5
Optimal Cycle:       52          Level Of Service:                  B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   22   22   22    22   22   22    22   22   22    22   22   22
Lanes:       1  0  1  1  0    1  0  1  1  0    0  1  0  1  0    0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      34  715   63   117  537   54    67  232   20   122  321  136
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   34  715   63   117  537   54    67  232   20   122  321  136
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:    37  786   69   129  590   59    74  255   22   134  353  149
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   37  786   69   129  590   59    74  255   22   134  353  149
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    37  786   69   129  590   59    74  255   22   134  353  149
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.36 0.94 0.94  0.26 0.94 0.94  0.69 0.69 0.69  0.71 0.71 0.71
Lanes:       1.00 1.84 0.16  1.00 1.82 0.18  0.42 1.45 0.13  0.42 1.11 0.47
Final Sat.:   692 3278  289   496 3234  325   553 1915  165   567 1491  632
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.24 0.24  0.26 0.18 0.18  0.13 0.13 0.13  0.24 0.24 0.24
Crit Moves:            ****             ****             ****             ****
Green/Cycle: 0.41 0.41 0.41  0.41 0.41 0.41  0.39 0.39 0.39  0.39 0.39 0.39
Volume/Cap:  0.13 0.59 0.59  0.64 0.45 0.45  0.34 0.34 0.34  0.61 0.61 0.61
Delay/Veh:    8.5 11.1 11.1  23.9  9.7  9.7  17.1 17.1 17.1  21.1 21.1 21.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   8.5 11.1 11.1  23.9  9.7  9.7  17.1 17.1 17.1  21.1 21.1 21.1
DesignQueue:    1   20    2     3   15    2     2    7    1     4    9    4
********************************************************************************
```

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-------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
-------------------------------------------------------------------------------
                        Level Of Service Computation Report
                   2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #12 Hearst Avenue / Oxford Avenue
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):         0.973
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   52.8
Optimal Cycle:      131          Level Of Service:                  D
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   19   19   19    19   19   19    22   22   22    22   22   22
Lanes:       1  0  1  1  0    0  1  0  1  0    0  1  0  1  0    1  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      80  743  315    30  458   25    23  267  115   313  478   52
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   80  743  315    30  458   25    23  267  115   313  478   52
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:    85  790  335    32  487   27    24  284  122   333  509   55
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   85  790  335    32  487   27    24  284  122   333  509   55
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    85  790  335    32  487   27    24  284  122   333  509   55
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.38 0.91 0.91  0.68 0.68 0.68  0.83 0.83 0.83  0.29 0.29 0.29
Lanes:       1.00 1.40 0.60  0.12 1.78 0.10  0.11 1.32 0.57  1.11 1.70 0.19
Final Sat.:   713 2421 1026   151 2307  126   179 2077  895   614  937  102
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.12 0.33 0.33  0.21 0.21 0.21  0.14 0.14 0.14  0.54 0.54 0.54
Crit Moves:       ****                  ****             ****             ****
Green/Cycle: 0.35 0.35 0.35  0.35 0.35 0.35  0.46 0.46 0.46  0.46 0.46 0.46
Volume/Cap:  0.34 0.93 0.93  0.60 0.60 0.60  0.30 0.30 0.30  1.18 1.18 1.18
Delay/Veh:   20.7 36.3 36.3  21.9 21.9 21.9  13.2 13.2 13.2 114.4  114 114.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  20.7 36.3 36.3  21.9 21.9 21.9  13.2 13.2 13.2 114.4  114 114.4
DesignQueue:    2   23   10     1   14    1     1    7    3     8   12    1
********************************************************************************
```

                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour

                   Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #13 Hearst Avenue / Spruce Street
****
Average Delay (sec/veh):   2.4   Worst Case Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|--------------||---------------||---------------||--------------|
Control: Stop Sign   Stop Sign   Uncontrolled   Uncontrolled
Rights: Include   Include   Include   Include
Lanes: 0 0 0 0 0   0 0 1! 0 0   0 1 1 0 0   0 0 1 1 0
-----------|--------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0   0   0   11   0   48   34 579   0   0 792   13
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   0   0   11   0   48   34 579   0   0 792   13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 0   0   0   12   0   51   36 616   0   0 843   14
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.:   0   0   0   12   0   51   36 616   0   0 843   14
-----------|--------------||---------------||---------------||--------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.8 xxxx   6.9 4.1 xxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 xxxx   3.3 2.2 xxxx xxxxx xxxx xxxxx
-----------|--------------||---------------||---------------||--------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1230 xxxx   428 856 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 173 xxxx   581 793 xxxx xxxxx xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx 167 xxxx   581 793 xxxx xxxxx xxxx xxxx xxxxx
-----------|--------------||---------------||---------------||--------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 9.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: *   *   *   *   *   *   A   *   *   *   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 397 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 15.8 xxxxx 9.8 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: *   *   *   *   C   *   A   *   *   *   *   *
ApproachDel: xxxxxx   15.8   xxxxxx   xxxxxx
ApproachLOS: *   C   *   *

                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour

                   Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #14 Hearst Avenue / Arch Street / Le Conte Avenue
****
Average Delay (sec/veh):   1.6   Worst Case Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|--------------||---------------||---------------||--------------|
Control: Stop Sign   Stop Sign   Uncontrolled   Uncontrolled
Rights: Include   Include   Include   Include
Lanes: 0 0 0 0 0   0 0 1! 0 0   1 0 2 0 0   0 0 1 1 0
-----------|--------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0   0   0   6   0   135   146 439   0   0 668   6
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   0   0   6   0   135   146 439   0   0 668   6
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 0   0   0   6   0   145   157 472   0   0 718   6
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.:   0   0   0   6   0   145   157 472   0   0 718   6
-----------|--------------||---------------||---------------||--------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.8 xxxx   6.9 4.1 xxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 xxxx   3.3 2.2 xxxx xxxxx xxxx xxxxx
-----------|--------------||---------------||---------------||--------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1272 xxxx   362 725 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 162 xxxx   640 887 xxxx xxxxx xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx 140 xxxx   640 887 xxxx xxxxx xxxx xxxx xxxxx
-----------|--------------||---------------||---------------||--------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 9.9 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: *   *   *   *   *   *   A   *   *   *   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 556 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 13.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: *   *   *   *   B   *   *   *   *   *   *   *
ApproachDel: xxxxxx   13.9   xxxxxx   xxxxxx
ApproachLOS: *   B   *   *

```
EXISTING PM              Thu Jun 19, 2003 17:23:23          Page 19-1      EXISTING PM              Thu Jun 19, 2003 17:23:23          Page 20-1
--------------------------------------------------------------------------  --------------------------------------------------------------------------
                          UC Berkeley LRDP EIR                                                        UC Berkeley LRDP EIR
                          Existing Conditions                                                         Existing Conditions
                            PM Peak Hour                                                                 PM Peak Hour
--------------------------------------------------------------------------  --------------------------------------------------------------------------
                 Level Of Service Computation Report                                         Level Of Service Computation Report
        2000 HCM Unsignalized Method (Base Volume Alternative)                      2000 HCM Operations Method (Base Volume Alternative)
****************************************************************************  ****************************************************************************
Intersection #15 Hearst Avenue / Scenic Avenue                              Intersection #16 Hearst Avenue / Euclid Avenue
****************************************************************************  ****************************************************************************
Average Delay (sec/veh):     0.7      Worst Case Level Of Service:     B    Cycle (sec):       70           Critical Vol./Cap. (X):       0.572
**************************************************************************    Loss Time (sec):   12 (Y+R =  3 sec) Average Delay (sec/veh):    16.9
Approach:    North Bound    South Bound     East Bound     West Bound       Optimal Cycle:     58           Level Of Service:             B
Movement:    L - T - R    L - T - R    L - T - R    L - T - R               ****************************************************************************
-----------|---------------||---------------||---------------||---------------|  Approach:     North Bound     South Bound      East Bound      West Bound
Control:       Stop Sign      Stop Sign      Uncontrolled   Uncontrolled     Movement:    L - T - R     L - T - R     L - T - R     L - T - R
Rights:        Include        Include        Include        Include          -----------|---------------||---------------||---------------||---------------|
Lanes:       0 0 0 0 0    0 0 0 0 1    0 0 2 0 0    0 0 1 1 0                Control:       Permitted      Permitted      Prot+Permit    Permitted
-----------|---------------||---------------||---------------||---------------|  Rights:        Include        Include        Include        Include
Volume Module: >> Count Date: 12 Nov 2002 << 4:00-6:00 PM                   Min. Green:  0   0   0    25   0   25    5  16   0    16  16  16
Base Vol:    0    0    0    0    0  109    0  437    0    0  566   54        Lanes:       0 0 1! 0 0    0 0 1! 0 0    1 0 1 0 0    0 0 1! 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     -----------|---------------||---------------||---------------||---------------|
Initial Bse: 0    0    0    0    0  109    0  437    0    0  566   54        Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     Base Vol:    4   0   1    57   0  115   120 307   0    2 503  23
PHF Adj:    0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93     Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  0    0    0    0    0  117    0  470    0    0  609   58        Initial Bse: 4   0   1    57   0  115   120 307   0    2 503  23
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0        User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  0    0    0    0    0  117    0  470    0    0  609   58        PHF Adj:    0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
-----------|---------------||---------------||---------------||---------------|  PHF Volume:  4   0   1    59   0  120   125 320   0    2 524  24
Critical Gap Module:                                                        Reduct Vol:  0   0   0     0   0    0     0   0   0    0   0   0
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx  Reduced Vol: 4   0   1    59   0  120   125 320   0    2 524  24
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx  PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
-----------|---------------||---------------||---------------||---------------|  MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Capacity Module:                                                            Final Vol.:  4   0   1    59   0  120   125 320   0    2 524  24
Cnflct Vol: xxxx xxxx xxxxx  xxxx xxxx   333 xxxx xxxx xxxxx  xxxx xxxx xxxxx  -----------|---------------||---------------||---------------||---------------|
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx   668 xxxx xxxx xxxxx  xxxx xxxx xxxxx  Saturation Flow Module:
Move Cap.:  xxxx xxxx xxxxx  xxxx xxxx   668 xxxx xxxx xxxxx  xxxx xxxx xxxxx  Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
-----------|---------------||---------------||---------------||---------------|  Adjustment: 0.88 1.00 0.88 0.83 1.00 0.83 0.95 1.00 1.00 0.99 0.99 0.99
Level Of Service Module:                                                    Lanes:      0.80 0.00 0.20 0.33 0.00 0.67 1.00 1.00 0.00 0.01 0.95 0.04
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx  11.5 xxxxx xxxx xxxxx xxxxx xxxx xxxxx  Final Sat.: 1338   0  335  523   0 1055  1805 1900   0    7 1799  82
LOS by Move: *    *    *    *    *    B    *    *    *    *    *    *        -----------|---------------||---------------||---------------||---------------|
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT  Capacity Analysis Module:
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  Vol/Sat:    0.00 0.00 0.00 0.11 0.00 0.11 0.07 0.17 0.00 0.29 0.29 0.29
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  Crit Moves:               ****           ****                      ****
Shared LOS:  *    *    *    *    *    *    *    *    *    *    *    *        Green/Cycle: 0.41 0.00 0.41 0.41 0.00 0.41 0.54 0.54 0.54 0.40 0.40 0.40
ApproachDel:   xxxxxx          11.5          xxxxxx          xxxxxx          Volume/Cap: 0.01 0.00 0.01 0.28 0.00 0.28 0.13 0.31 0.00 0.73 0.73 0.73
ApproachLOS:     *              B              *              *              Delay/Veh:  12.2  0.0 12.2 14.8  0.0 14.8  8.2  9.7  0.0 23.9 23.9 23.9
                                                                            User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
                                                                            AdjDel/Veh: 12.2  0.0 12.2 14.8  0.0 14.8  8.2  9.7  0.0 23.9 23.9 23.9
                                                                            DesignQueue: 0   0   0     1   0    3     2   6   0    0  13   1
                                                                            ****************************************************************************




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```
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #17 Hearst Avenue / Le Roy Avenue
********************************************************************************
Average Delay (sec/veh):     2.4        Worst Case Level Of Service:       C
********************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:     0    0    0   12    0   56   38  355    0    0  523   21
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0    0   12    0   56   38  355    0    0  523   21
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume:   0    0    0   13    0   61   41  386    0    0  568   23
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:   0    0    0   13    0   61   41  386    0    0  568   23
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx  6.2  4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1048 xxxx  580  591 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  254 xxxx  518  994 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  246 xxxx  518  994 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  8.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *     *     *     *     *     *   A     *     *     *     *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  434 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 15.0 xxxxx   8.8 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *     *     *     *     C     *    A     *     *     *     *     *
ApproachDel:     xxxxxx            15.0            xxxxxx            xxxxxx
ApproachLOS:       *                C                *                *
```

```
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #18 Hearst Avenue / Gayley Road / LaLoma Avenue
********************************************************************************
Cycle (sec):        70         Critical Vol./Cap. (X):        0.871
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):      24.3
Optimal Cycle:      75                 Level Of Service:           C
********************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   18   18   18   18   18   18   17   17   17   17   17   17
Lanes:      0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:   318  288   19    4  203   49   28   52  288   69  197   40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:318  288   19    4  203   49   28   52  288   69  197   40
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 349  316   21    4  223   54   31   57  316   76  216   44
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:349  316   21    4  223   54   31   57  316   76  216   44
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 349  316   21    4  223   54   31   57  316   76  216   44
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.69 0.69 0.69 0.97 0.97 0.97 0.86 0.86 0.86 0.82 0.82 0.85
Lanes:      0.51 0.46 0.03 0.02 0.79 0.19 0.08 0.14 0.78 0.26 0.74 1.00
Final Sat.:  667  604   40   29 1457  352  124  231 1277  403 1151 1615
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.52 0.52 0.52 0.15 0.15 0.15 0.25 0.25 0.25 0.19 0.19 0.03
Crit Moves:      ****                                ****
Green/Cycle:0.54 0.54 0.54 0.54 0.54 0.54 0.46 0.46 0.46 0.46 0.46 0.46
Volume/Cap: 0.97 0.97 0.97 0.28 0.28 0.28 0.54 0.54 0.54 0.41 0.41 0.06
Delay/Veh:  42.8 42.8 42.8  9.5  9.5  9.5 13.9 13.9 13.9 12.1 12.1  8.8
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 42.8 42.8 42.8  9.5  9.5  9.5 13.9 13.9 13.9 12.1 12.1  8.8
DesignQueue:   7    6    0    0    4    1    1    1    7    2    5    1
********************************************************************************
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--------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                        Existing Conditions
                          PM Peak Hour
--------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)
**************************************************************************
Intersection #19 Berkeley Way / Oxford Street
**************************************************************************
Cycle (sec):       75        Critical Vol./Cap. (X):        0.447
Loss Time (sec):    8 (Y+R =  4 sec) Average Delay (sec/veh):    7.4
Optimal Cycle:     46        Level Of Service:              A
**************************************************************************
Approach:     North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Permitted        Permitted        Permitted        Permitted
Rights:        Include          Include          Include          Include
Min. Green:  18  18  18    18  18  18    20  20  20    20  20  20
Lanes:        1  0  1  1  0   1  0  1  1  0   0  0  1!0  0   1  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     48 1039    3    4  890   22   72    2   51   29   18   42
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  48 1039    3    4  890   22   72    2   51   29   18   42
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:   51 1105    3    4  947   23   77    2   54   31   19   45
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  51 1105    3    4  947   23   77    2   54   31   19   45
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   51 1105    3    4  947   23   77    2   54   31   19   45
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.26 0.95 0.95  0.22 0.95 0.95  0.76 0.76 0.76  0.78 0.90 0.90
Lanes:      1.00 1.99 0.01  1.00 1.95 0.05  0.57 0.02 0.41  1.00 0.30 0.70
Final Sat.:  496 3600   10   410 3509   87   833   23  590  1482  510 1190
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.10 0.31 0.31  0.01 0.27 0.27  0.09 0.09 0.09  0.02 0.04 0.04
Crit Moves:      ****                            ****
Green/Cycle: 0.67 0.67 0.67  0.67 0.67 0.67  0.29 0.29 0.29  0.29 0.29 0.29
Volume/Cap: 0.15 0.46 0.46  0.02 0.40 0.40  0.32 0.32 0.32  0.07 0.13 0.13
Delay/Veh:   4.9  6.2  6.2   4.2  5.8  5.8  21.5 21.5 21.5  19.6 19.9 19.9
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  4.9  6.2  6.2   4.2  5.8  5.8  21.5 21.5 21.5  19.6 19.9 19.9
DesignQueue:   1   16    0     0   14    0    2    0    2    1    1    1
**************************************************************************
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--------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                        Existing Conditions
                          PM Peak Hour
--------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)
**************************************************************************
Intersection #20 University Avenue / Sixth Street
**************************************************************************
Cycle (sec):      128        Critical Vol./Cap. (X):        1.072
Loss Time (sec):   16 (Y+R =  5 sec) Average Delay (sec/veh):   91.2
Optimal Cycle:    180        Level Of Service:              F
**************************************************************************
Approach:     North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:     Prot+Permit       Permitted        Protected        Protected
Rights:        Include          Include          Include          Include
Min. Green:   6  23  23     0  23  23     6  15  15     6  15  15
Lanes:        1  0  1  0  1   1  0  1  0  1   1  0  1  1  0   1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:    343  353   48   101  239  465   163  827  212    42 1205   33
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 343  353   48   101  239  465   163  827  212    42 1205   33
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:  357  368   50   105  249  484   170  861  221    44 1255   34
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 357  368   50   105  249  484   170  861  221    44 1255   34
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  357  368   50   105  249  484   170  861  221    44 1255   34
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 1.00 0.85  0.19 1.00 0.85  0.95 0.92 0.92  0.95 0.95 0.95
Lanes:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.59 0.41  1.00 1.95 0.05
Final Sat.: 1805 1900 1615   367 1900 1615  1805 2784  714  1805 3500   96
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.20 0.19 0.03  0.29 0.13 0.30  0.09 0.31 0.31  0.02 0.36 0.36
Crit Moves: ****                  ****  ****                  ****
Green/Cycle: 0.35 0.35 0.35  0.21 0.21 0.21  0.09 0.34 0.34  0.05 0.34 0.34
Volume/Cap: 0.56 0.55 0.09  1.36 0.62 1.42  1.10 0.90 0.90  0.52 1.04 1.04
Delay/Veh:  37.1 36.6 28.1 275.9 52.9 256.8 158.5 50.8 50.8  80.3 79.6 79.6
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 37.1 36.6 28.1 275.9 52.9 256.8 158.5 50.8 50.8  80.3 79.6 79.6
DesignQueue:  17   18    2     6   14   29    11   43   11     3   63    2
**************************************************************************
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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #21 University Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):        128          Critical Vol./Cap. (X):         0.880
Loss Time (sec):     16 (Y+R =  4 sec) Average Delay (sec/veh):  152.6
Optimal Cycle:      124          Level Of Service:                   F
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
          ------------|--------------||--------------||--------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:    5   21   21     5   21   21     5   22   22     5   22   22
Lanes:       1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
          ------------|--------------||--------------||--------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:      233  945   93   141  681   84    87  986  105    71  906  125
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   233  945   93   141  681   84    87  986  105    71  906  125
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      0.92 0.92 0.92  0.92 0.92 0.92  0.92 0.92 0.92  0.92 0.92 0.92
PHF Volume:    253 1027  101   153  740   91    95 1072  114    77  985  136
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   253 1027  101   153  740   91    95 1072  114    77  985  136
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    253 1027  101   153  740   91    95 1072  114    77  985  136
          ------------|--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.95 0.94 0.94  0.95 0.93 0.93  0.95 0.94 0.94  0.95 0.93 0.93
Lanes:        1.00 1.82 0.18  1.00 1.78 0.22  1.00 1.81 0.19  1.00 1.76 0.24
Final Sat.:   1805 3244  319  1805 3162  390  1805 3217  343  1805 3115  430
          ------------|--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:      0.14 0.32 0.32  0.08 0.23 0.23  0.05 0.33 0.33  0.04 0.32 0.32
Crit Moves:        ****            ****            ****            ****
Green/Cycle:  0.09 0.34 0.34  0.09 0.34 0.34  0.12 0.23 0.23  0.05 0.23 0.23
Volume/Cap:   1.50 0.94 0.94  0.91 0.70 0.70  0.45 1.42 1.42  0.91 1.35 1.35
Delay/Veh:   309.6 56.8 56.8 105.3 40.2 40.2  59.3  246 245.6 136.3  214 213.9
User DelAdj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  309.6 56.8 56.8 105.3 40.2 40.2  59.3  246 245.6 136.3  214 213.9
DesignQueue:    17   52    5    10   37    5     6   62    7     5   57    8
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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #22 University Avenue / Martin Luther King Way
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):         0.776
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):   31.8
Optimal Cycle:       66          Level Of Service:                   C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
          ------------|--------------||--------------||--------------|
Control:        Protected        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    5   23   23    23   23   23    17   17   17    17   17   17
Lanes:       1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
          ------------|--------------||--------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      282  902   78    46  702   77    80  679  134    71  727   81
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   282  902   78    46  702   77    80  679  134    71  727   81
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:    294  940   81    48  731   80    83  707  140    74  757   84
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   294  940   81    48  731   80    83  707  140    74  757   84
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    294  940   81    48  731   80    83  707  140    74  757   84
          ------------|--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.95 0.94 0.94  0.21 0.94 0.94  0.17 0.93 0.93  0.17 0.94 0.94
Lanes:        1.00 1.84 0.16  1.00 1.80 0.20  1.00 1.67 0.33  1.00 1.80 0.20
Final Sat.:   1805 3283  284   397 3204  351   319 2940  580   315 3199  356
          ------------|--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:      0.16 0.29 0.29  0.12 0.23 0.23  0.26 0.24 0.24  0.23 0.24 0.24
Crit Moves:   ****                 ****            ****
Green/Cycle:  0.13 0.52 0.52  0.39 0.39 0.39  0.33 0.33 0.33  0.33 0.33 0.33
Volume/Cap:   1.22 0.55 0.55  0.31 0.59 0.59  0.78 0.72 0.72  0.70 0.71 0.71
Delay/Veh:   166.3 10.1 10.1  19.8 18.5 18.5  65.1 25.8 25.8  54.4 25.5 25.5
User DelAdj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  166.3 10.1 10.1  19.8 18.5 18.5  65.1 25.8 25.8  54.4 25.5 25.5
DesignQueue:    11   20    2     1   20    2     2   21    4     2   22    2
********************************************************************************
```

                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour

                      Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #23 University Avenue / Milvia Street
****
Cycle (sec):   75   Critical Vol./Cap. (X):   0.474
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   16.6
Optimal Cycle: 49   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 21   21   21   21   21   21   20   20   20   20   20   20
Lanes: 1   0   0 1 0   0   0 1! 0   0   0   1   0 1 0   0   0 1   0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 127 218   44   13 102   74   47 649 108   22 651   33
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 127 218   44   13 102   74   47 649 108   22 651   33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 134 229   46   14 107   78   49 683 114   23 685   35
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 134 229   46   14 107   78   49 683 114   23 685   35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   134 229   46   14 107   78   49 683 114   23 685   35
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.70 0.98 0.98 0.92 0.92 0.92 0.81 0.81 0.81 0.87 0.87 0.87
Lanes: 1.00 0.83 0.17 0.07 0.54 0.39 0.12 1.61 0.27 0.06 1.85 0.09
Final Sat.:   1334 1541 311   120 945 685   180 2490 414   103 3034 154
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.10 0.15 0.15 0.11 0.11 0.11 0.27 0.27 0.27 0.23 0.23 0.23
Crit Moves: ****   ****
Green/Cycle: 0.35 0.35 0.35 0.35 0.35 0.35 0.47 0.47 0.47 0.47 0.47 0.47
Volume/Cap: 0.29 0.43 0.43 0.33 0.33 0.33 0.58 0.58 0.58 0.48 0.48 0.48
Delay/Veh: 19.4 20.9 20.9 19.5 19.5 19.5 16.0 16.0 16.0 14.5 14.5 14.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 19.4 20.9 20.9 19.5 19.5 19.5 16.0 16.0 16.0 14.5 14.5 14.5
DesignQueue: 4   6   1   0   3   2   1   16   3   1   16   1
****

                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour

                      Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #24 University Avenue / SB Shattuck Avenue
****
Cycle (sec):   75   Critical Vol./Cap. (X):   0.711
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   18.2
Optimal Cycle: 56   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Protected   Permitted
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   16   16   16   16   16   16   16   16   16
Lanes: 0   0   0 0 0   0   1   1 1 0   1   0 1 1   0   0 1 0   1   1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0   0   0   55 576 146   131 374 254   74 642 640
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   0   0   55 576 146   131 374 254   74 642 640
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0   0   0   58 606 154   138 394 267   78 676 674
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0   0   0   58 606 154   138 394 267   78 676 674
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0   0   0   58 606 154   138 394 267   78 676 674
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 0.77 0.86 0.80 0.80 0.69 0.69 0.69
Lanes: 0.00 0.00 0.00 0.21 2.23 0.56 1.00 1.19 0.81 0.16 1.42 1.42
Final Sat.:   0   0   0   312 3270 829 1625 1817 1234   213 1852 1846
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.19 0.19 0.19 0.08 0.22 0.22 0.36 0.36 0.36
Crit Moves: ****   ****   ****
Green/Cycle: 0.00 0.00 0.00 0.23 0.23 0.23 0.36 0.36 0.36 0.67 0.67 0.67
Volume/Cap: 0.00 0.00 0.00 0.81 0.81 0.81 0.24 0.60 0.60 0.54 0.54 0.54
Delay/Veh: 0.0 0.0 0.0 34.1 34.1 34.1 17.7 22.1 22.1   7.2 7.2 7.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 34.1 34.1 34.1 17.7 22.1 22.1   7.2 7.2 7.2
DesignQueue: 0   0   0   2   20   5   4   11   7   1   10   10
****

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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                         Existing Conditions
                          PM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #25 University Avenue / NB Shattuck Avenue
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):          0.478
Loss Time (sec):     15 (Y+R =  4 sec) Average Delay (sec/veh):    17.1
Optimal Cycle:       47          Level Of Service:                  B
********************************************************************************
Approach:        North Bound       South Bound       East Bound       West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Protected          Protected         Protected        Protected
Rights:           Include            Include           Include          Include
Min. Green:   19    0   19     0    0    0     0   13    0     0   13    0
Lanes:        2  0  1! 0  1    0  0  0  0  0    0  0  2  0  0    0  0  2  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      938    0  208     0    0    0     0  454    0     0  433    0
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   938    0  208     0    0    0     0  454    0     0  433    0
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:    998    0  221     0    0    0     0  483    0     0  461    0
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   998    0  221     0    0    0     0  483    0     0  461    0
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    998    0  221     0    0    0     0  483    0     0  461    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.82 1.00 0.84  1.00 1.00 1.00  1.00 0.86 1.00  1.00 0.86 1.00
Lanes:        2.76 0.00 1.24  0.00 0.00 0.00  0.00 2.00 0.00  0.00 2.00 0.00
Final Sat.:   4275    0 1989     0    0    0     0 3249    0     0 3249    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.23 0.00 0.11  0.00 0.00 0.00  0.00 0.15 0.00  0.00 0.14 0.00
Crit Moves:   ****                              ****             ****
Green/Cycle:  0.48 0.00 0.48  0.00 0.00 0.00  0.00 0.32 0.00  0.00 0.32 0.00
Volume/Cap:   0.49 0.00 0.23  0.00 0.00 0.00  0.00 0.46 0.00  0.00 0.44 0.00
Delay/Veh:    13.9  0.0 11.5   0.0  0.0  0.0   0.0 21.9  0.0   0.0 21.6  0.0
User DelAdj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   13.9  0.0 11.5   0.0  0.0  0.0   0.0 21.9  0.0   0.0 21.6  0.0
DesignQueue:    23    0    5     0    0    0     0   14    0     0   13    0
********************************************************************************
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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                         Existing Conditions
                          PM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #26 University Avenue / Oxford Street
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):          0.693
Loss Time (sec):      4 (Y+R =  4 sec) Average Delay (sec/veh):    18.2
Optimal Cycle:       58          Level Of Service:                  B
********************************************************************************
Approach:        North Bound       South Bound       East Bound       West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Prot+Permit        Permitted         Permitted        Permitted
Rights:           Include            Include           Include          Include
Min. Green:   18   18   18    18   18   18    18   18   18    18   18   18
Lanes:        1  0  1  1  0    1  0  1  1  0    1  1  0  0  1    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      278  771   16    32  835  106   306   39  330     9   37   40
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   278  771   16    32  835  106   306   39  330     9   37   40
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:    296  820   17    34  888  113   326   41  351    10   39   43
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   296  820   17    34  888  113   326   41  351    10   39   43
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    296  820   17    34  888  113   326   41  351    10   39   43
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.86 0.85 0.85  0.27 0.84 0.84  0.60 0.60 0.77  0.83 0.83 0.83
Lanes:        1.00 1.96 0.04  1.00 1.77 0.23  1.77 0.23 1.00  0.10 0.43 0.47
Final Sat.:   1625 3173   66   520 2834  360  2029  259 1454   164  676  730
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.18 0.26 0.26  0.07 0.31 0.31  0.16 0.16 0.24  0.06 0.06 0.06
Crit Moves:   ****                   ****                ****
Green/Cycle:  0.64 0.64 0.64  0.45 0.45 0.45  0.29 0.29 0.29  0.29 0.29 0.29
Volume/Cap:   0.28 0.40 0.40  0.14 0.69 0.69  0.56 0.56 0.84  0.20 0.20 0.20
Delay/Veh:     6.6  7.1  7.1  13.3 19.1 19.1  26.2 26.2 43.5  21.3 21.3 21.3
User DelAdj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:    6.6  7.1  7.1  13.3 19.1 19.1  26.2 26.2 43.5  21.3 21.3 21.3
DesignQueue:     5   13    0     1   21    3    10    1   11     0    1    1
********************************************************************************
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                              UC Berkeley LRDP EIR
                              Existing Conditions
                               PM Peak Hour

                       Level Of Service Computation Report
              2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #27 Univeristy Drive (East Gate) / Gayley Road
****
Average Delay (sec/veh):   1.6   Worst Case Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Uncontrolled   Uncontrolled   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Lanes: 1 0 1 0 0   0 0 0 1 0   1 0 0 0 1   0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol: 59 552   0   0 505   52   41   0   81   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 59 552   0   0 505   52   41   0   81   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 63 587   0   0 537   55   44   0   86   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.:   63 587   0   0 537   55   44   0   86   0   0   0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 593 xxxx xxxxx xxxx xxxx xxxxx 1278 xxxx   565 xxxx xxxx xxxxx
Potent Cap.: 993 xxxx xxxxx xxxx xxxx xxxxx   185 xxxx   528 xxxx xxxx xxxxx
Move Cap.:   993 xxxx xxxxx xxxx xxxx xxxxx   176 xxxx   528 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 8.9 xxxx xxxxx xxxxx xxxx xxxxx 32.0 xxxx   13.1 xxxxx xxxx xxxxx
LOS by Move: A   *   *   *   *   *   D   *   B   *   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: *   *   *   *   *   *   *   *   *   *   *   *
ApproachDel: xxxxxx   xxxxxx   19.5   xxxxxx
ApproachLOS: *   *   C   *

                              UC Berkeley LRDP EIR
                              Existing Conditions
                               PM Peak Hour

                       Level Of Service Computation Report
              2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #28 Addison Street / Oxford Street
****
Average Delay (sec/veh):   0.8   Worst Case Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Uncontrolled   Uncontrolled   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Lanes: 1 0 2 0 0   0 0 1 1 0   0 0 1! 0 0   0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 32 1006   0   0 952   28   10   0 114   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 32 1006   0   0 952   28   10   0 114   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 34 1070   0   0 1013   30   11   0 121   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.:   34 1070   0   0 1013   30   11   0 121   0   0   0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8 xxxx   6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 890 xxxx xxxxx xxxx xxxx xxxxx 1497 xxxx   325 xxxx xxxx xxxxx
Potent Cap.: 709 xxxx xxxxx xxxx xxxx xxxxx   106 xxxx   624 xxxx xxxx xxxxx
Move Cap.:   709 xxxx xxxxx xxxx xxxx xxxxx   103 xxxx   624 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 10.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: B   *   *   *   *   *   *   *   *   *   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 443 xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 16.6 xxxxx xxxxx xxxx xxxxx
Shared LOS: *   *   *   *   *   *   *   C   *   *   *   *
ApproachDel: xxxxxx   xxxxxx   16.6   xxxxxx
ApproachLOS: *   *   C   *

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #29 Center Street / SB Shattuck Avenue
********************************************************************************
Cycle (sec):         75           Critical Vol./Cap. (X):         0.494
Loss Time (sec):     12 (Y+R = 10 sec) Average Delay (sec/veh):    14.4
Optimal Cycle:       67           Level Of Service:                 B
********************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted       Permitted        Permitted       Permitted
Rights:           Include         Include          Include         Include
Min. Green:    0    0    0   30   30   30    0   17   17   25   25    0
Lanes:         0  0  0  0    0  1  1  0    0  0  0  1  0    0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0   41  790  126    0  104  179   29  160    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0   41  790  126    0  104  179   29  160    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:    0    0    0   43  832  133    0  109  188   31  168    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0    0    0   43  832  133    0  109  188   31  168    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0    0    0   43  832  133    0  109  188   31  168    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.79 0.79 0.79 1.00 0.82 0.82 0.82 0.82 1.00
Lanes:      0.00 0.00 0.00 0.13 2.48 0.39 0.00 0.37 0.63 0.15 0.85 0.00
Final Sat.:    0    0    0  192 3701  590    0  575  990  239 1320    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.22 0.22 0.22 0.00 0.19 0.19 0.13 0.13 0.00
Crit Moves:                 ****                ****
Green/Cycle: 0.00 0.00 0.00 0.40 0.40 0.40 0.00 0.29 0.29 0.43 0.43 0.00
Volume/Cap: 0.00 0.00 0.00 0.56 0.56 0.56 0.00 0.65 0.65 0.30 0.30 0.00
Delay/Veh:   0.0  0.0  0.0 11.0 11.0 11.0  0.0 30.1 30.1  8.3  8.3  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 11.0 11.0 11.0  0.0 30.1 30.1  8.3  8.3  0.0
DesignQueue:   0    0    0    1   22    3    0    3    6    1    4    0
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                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #30 Center Street / NB Shattuck Avenue
********************************************************************************
Cycle (sec):         75           Critical Vol./Cap. (X):         0.440
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     7.6
Optimal Cycle:       65           Level Of Service:                 A
********************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted       Permitted        Permitted       Permitted
Rights:           Include         Include          Include         Include
Min. Green:   40   40   40    0    0    0   17   17    0    0   17   17
Lanes:         0  1  1  1  0    0  0  0  0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     50  982   86    0    0    0   81   55    0    0  139   58
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  50  982   86    0    0    0   81   55    0    0  139   58
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume:   54 1056   92    0    0    0   87   59    0    0  149   62
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  54 1056   92    0    0    0   87   59    0    0  149   62
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   54 1056   92    0    0    0   87   59    0    0  149   62
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.80 0.80 0.80 1.00 1.00 1.00 0.71 0.71 1.00 1.00 0.86 0.86
Lanes:      0.13 2.64 0.23 0.00 0.00 0.00 0.60 0.40 0.00 0.00 0.71 0.29
Final Sat.:  204 4003  351    0    0    0  804  546    0    0 1158  483
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.26 0.26 0.26 0.00 0.00 0.00 0.11 0.11 0.00 0.00 0.13 0.13
Crit Moves:  ****                                             ****
Green/Cycle: 0.53 0.53 0.53 0.00 0.00 0.00 0.29 0.29 0.00 0.00 0.29 0.29
Volume/Cap: 0.49 0.49 0.49 0.00 0.00 0.00 0.37 0.37 0.00 0.00 0.44 0.44
Delay/Veh:   3.4  3.4  3.4  0.0  0.0  0.0 17.8 17.8  0.0  0.0 24.4 24.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  3.4  3.4  3.4  0.0  0.0  0.0 17.8 17.8  0.0  0.0 24.4 24.4
DesignQueue:   1   21    2    0    0    0    3    2    0    0    5    2
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EXISTING PM              Thu Jun 19, 2003 17:23:24          Page 35-1
-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                          PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*************************************************************************
Intersection #31 Center Street / Oxford Street
*************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):      0.441
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    7.5
Optimal Cycle:      46          Level Of Service:              A
*************************************************************************
Approach:      North Bound     South Bound     East Bound     West Bound
Movement:     L  -  T  -  R    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   19   19   19    19   19   19    19   19   19    19   19   19
Lanes:      1  0  1  1  0    1  0  1  1  0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 13 Nov 2000 << 4:00 - 6:00 PM
Base Vol:      87  998   24    19  980   67    33    6   84    37    9   16
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   87  998   24    19  980   67    33    6   84    37    9   16
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:    93 1062   26    20 1043   71    35    6   89    39   10   17
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   93 1062   26    20 1043   71    35    6   89    39   10   17
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    93 1062   26    20 1043   71    35    6   89    39   10   17
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.26 0.95 0.95  0.26 0.94 0.94  0.83 0.83 0.83  0.78 0.78 0.78
Lanes:       1.00 1.95 0.05  1.00 1.87 0.13  0.27 0.05 0.68  0.60 0.14 0.26
Final Sat.:   486 3515   85   500 3345  229   424   77 1080   884  215  382
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.30 0.30  0.04 0.31 0.31  0.08 0.08 0.08  0.04 0.04 0.04
Crit Moves:          ****              ****         ****
Green/Cycle: 0.68 0.68 0.68  0.68 0.68 0.68  0.27 0.27 0.27  0.27 0.27 0.27
Volume/Cap:  0.28 0.44 0.44  0.06 0.46 0.46  0.31 0.31 0.31  0.17 0.17 0.17
Delay/Veh:    6.8  6.1  6.1   4.3  6.2  6.2  23.9 23.9 23.9  22.0 22.0 22.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   6.8  6.1  6.1   4.3  6.2  6.2  23.9 23.9 23.9  22.0 22.0 22.0
DesignQueue:    1   15    0     0   15    1     1    0    3     1    0    1
*************************************************************************




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EXISTING PM              Thu Jun 19, 2003 17:23:24          Page 36-1
-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                          PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
*************************************************************************
Intersection #32 Stadium Rim Road / Gayley Road
*************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):      0.986
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):   34.7
Optimal Cycle:       0          Level Of Service:              D
*************************************************************************
Approach:      North Bound     South Bound     East Bound     West Bound
Movement:     L  -  T  -  R    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:      0  0  0  1  0    0  1  0  0  0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       0  359   19   135  459    0    20    7   15    47    0  232
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  359   19   135  459    0    20    7   15    47    0  232
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:     0  378   20   142  483    0    21    7   16    49    0  244
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0  378   20   142  483    0    21    7   16    49    0  244
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:     0  378   20   142  483    0    21    7   16    49    0  244
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:       0.00 0.95 0.05  0.23 0.77 0.00  0.47 0.17 0.36  0.17 0.00 0.83
Final Sat.:     0  566   30   144  490    0   210   73  157    95    0  471
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:     xxxx 0.67 0.67  0.99 0.99 xxxx  0.10 0.10 0.10  0.52 xxxx 0.52
Crit Moves:        ****              ****         ****              ****
Delay/Veh:    0.0 19.4 19.4  55.3 55.3  0.0  11.0 11.0 11.0  15.2  0.0 15.2
Delay Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 19.4 19.4  55.3 55.3  0.0  11.0 11.0 11.0  15.2  0.0 15.2
LOS by Move:    *    C    C     F    F    *     B    B    B     C    *    C
ApproachDel:       19.4             55.3             11.0             15.2
Delay Adj:         1.00             1.00             1.00             1.00
ApprAdjDel:        19.4             55.3             11.0             15.2
LOS by Appr:         C                F                B                C
*************************************************************************




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```

                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour

                       Level Of Service Computation Report
              2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #33 Allston Way / Oxford Street
****
Average Delay (sec/veh):   5.0   Worst Case Level Of Service: D
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Uncontrolled   Uncontrolled   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Lanes: 0 1 1 0 0   0 1 0 1 0   1 0 0 0 1   0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 46 1002   0   26 1082   75   23   0 110   0   0   0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 46 1002   0   26 1082   75   23   0 110   0   0   0
User Adj: 1.00 1.00 1.00   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.96 0.96 0.96   0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
PHF Volume: 48 1044   0   27 1127   78   24   0 115   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.:   48 1044   0   27 1127   78   24   0 115   0   0   0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx   4.1 xxxx xxxxx   6.8 xxxx   6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1205 xxxx xxxxx   1044 xxxx xxxxx 1838 xxxx   603 xxxx xxxx xxxxx
Potent Cap.: 586 xxxx xxxxx   674 xxxx xxxxx   69 xxxx   447 xxxx xxxx xxxxx
Move Cap.:   586 xxxx xxxxx   674 xxxx xxxxx   62 xxxx   447 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 11.7 xxxx xxxxx   10.6 xxxx xxxxx 95.5 xxxx 15.8 xxxxx xxxx xxxxx
LOS by Move: B   *   *   B   *   *   F   *   C   *   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel: 11.7 xxxx xxxxx   10.6 xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: B   *   *   B   *   *   *   *   *   *   *   *
ApproachDel: xxxxxx   xxxxxx   29.6   xxxxxx
ApproachLOS: *   *   D   *

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour

                       Level Of Service Computation Report
              2000 HCM Unsignalized Method (Base Volume Alternative)
****
Intersection #34 Kittridge Street / Oxford Street / Fulton Street
****
Average Delay (sec/veh):   6.1   Worst Case Level Of Service: F
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Uncontrolled   Uncontrolled   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Lanes: 0 1 1 0 0   0 0 1 1 0   0 0 1! 0 0   0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 45 995   0   0 1108   96   51   0   69   0   0   0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 45 995   0   0 1108   96   51   0   69   0   0   0
User Adj: 1.00 1.00 1.00   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97   0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume: 46 1026   0   0 1142   99   53   0   71   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Final Vol.:   46 1026   0   0 1142   99   53   0   71   0   0   0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx   xxxxx xxxx xxxxx 6.8 xxxx   6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx   xxxxx xxxx xxxxx 3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1241 xxxx xxxxx   xxxx xxxx xxxxx 1797 xxxx   621 xxxx xxxx xxxxx
Potent Cap.: 568 xxxx xxxxx   xxxx xxxx xxxxx   73 xxxx   435 xxxx xxxx xxxxx
Move Cap.:   568 xxxx xxxxx   xxxx xxxx xxxxx   68 xxxx   435 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 11.9 xxxx xxxxx   xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: B   *   *   *   *   *   *   *   *   *   *   *
Movement: LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   xxxx xxxx xxxxx xxxx 133 xxxxx xxxx xxxx xxxxx
Shrd StpDel: 11.9 xxxx xxxxx   xxxxx xxxx xxxxx xxxxx 125 xxxxx xxxxx xxxx xxxxx
Shared LOS: B   *   *   *   *   *   *   F   *   *   *   *
ApproachDel: xxxxxx   xxxxxx   124.9   xxxxxx
ApproachLOS: *   *   F   *

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-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #35 Stadium Rim Road / Centennial Drive
*******************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):          0.579
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):   12.2
Optimal Cycle:         0          Level Of Service:                   B
*******************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0      0    0    0      0    0    0      0    0    0
Lanes:        0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0   99  140   102   57    0     0    0    0   204    0  146
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0   99  140   102   57    0     0    0    0   204    0  146
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.85 0.85 0.85  0.85 0.85 0.85  0.85 0.85 0.85  0.85 0.85 0.85
PHF Volume:   0  116  165   120   67    0     0    0    0   240    0  172
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0  116  165   120   67    0     0    0    0   240    0  172
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0  116  165   120   67    0     0    0    0   240    0  172
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.41 0.59  0.64 0.36 0.00  0.00 0.00 0.00  0.58 0.00 0.42
Final Sat.:   0  291  411   401  224    0     0    0    0   415    0  297
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx 0.40 0.40  0.30 0.30 xxxx  xxxx xxxx xxxx  0.58 xxxx 0.58
Crit Moves:      ****             ****                          ****
Delay/Veh:   0.0 10.8 10.8  10.5 10.5  0.0   0.0  0.0  0.0  13.9  0.0 13.9
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 10.8 10.8  10.5 10.5  0.0   0.0  0.0  0.0  13.9  0.0 13.9
LOS by Move:  *   B    B     B    B    *     *    *    *     B    *    B
ApproachDel:     10.8             10.5            xxxxxx           13.9
Delay Adj:       1.00             1.00            xxxxx            1.00
ApprAdjDel:      10.8             10.5            xxxxxx           13.9
LOS by Appr:      B                B                *               B
*******************************************************************************
```

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-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #36 Bancroft Way / Shattuck Avenue
*******************************************************************************
Cycle (sec):          75          Critical Vol./Cap. (X):          0.670
Loss Time (sec):       8 (Y+R =  5 sec) Average Delay (sec/veh):   12.7
Optimal Cycle:        43          Level Of Service:                   B
*******************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18    0      0   18   18      0    0    0     16   16   16
Lanes:        1  0  2  0  0    0  0  1  1  0    0  0  1! 0  0    1  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    30 1186    0     0  949   23     1    0   38   258   97  111
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 30 1186    0     0  949   23     1    0   38   258   97  111
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:  32 1248    0     0  999   24     1    0   40   272  102  117
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 32 1248    0     0  999   24     1    0   40   272  102  117
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  32 1248    0     0  999   24     1    0   40   272  102  117
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.25 0.86 1.00  1.00 0.85 0.85  0.78 1.00 0.78  0.67 0.83 0.83
Lanes:      1.00 2.00 0.00  0.00 1.95 0.05  0.03 0.00 0.97  1.00 0.47 0.53
Final Sat.:  479 3249    0     0 3159   77    38    0 1448  1265  734  840
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.07 0.38 0.00  0.00 0.32 0.32  0.03 0.00 0.03  0.21 0.14 0.14
Crit Moves:      ****                  ****                      ****
Green/Cycle: 0.67 0.67 0.00  0.00 0.67 0.67  0.00 0.00 0.00  0.26 0.26 0.26
Volume/Cap: 0.10 0.58 0.00  0.00 0.47 0.47  xxxx 0.00 xxxx  0.83 0.54 0.54
Delay/Veh:   5.1  7.9  0.0   0.0  6.8  6.8   0.0  0.0  0.0  46.7 28.8 28.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  5.1  7.9  0.0   0.0  6.8  6.8   0.0  0.0  0.0  46.7 28.8 28.8
DesignQueue:  0   19    0     0   15    0     0    0    0     2    9    3    4
*******************************************************************************
```

```
                              UC Berkeley LRDP EIR
                              Existing Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #37 Bancroft Way / Fulton Street
********************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):         0.409
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     6.7
Optimal Cycle:      49          Level Of Service:                 A
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted         Permitted         Permitted         Permitted
Rights:          Include           Include           Include            Ignore
Min. Green:   17   17    0     0   17   17     0    0    0    24   24   24
Lanes:         0    1    1     0    0    0    2    1    0     0    0    0    0     0    1    1    0    1
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     18  164    0     0 1066  165     0    0    0    12  287  898
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  18  164    0     0 1066  165     0    0    0    12  287  898
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:     0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.00
PHF Volume:   19  176    0     0 1146  177     0    0    0    13  309    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  19  176    0     0 1146  177     0    0    0    13  309    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
Final Vol.:   19  176    0     0 1146  177     0    0    0    13  309    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.80 0.80 1.00  1.00 0.89 0.89  1.00 1.00 1.00  0.81 0.81 1.00
Lanes:      0.20 1.80 0.00  0.00 2.60 0.40  0.00 0.00 0.00  0.08 1.92 1.00
Final Sat.:  299 2726    0     0 4402  681     0    0    0   123 2945 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.06 0.06 0.00  0.00 0.26 0.26  0.00 0.00 0.00  0.10 0.10 0.00
Crit Moves:                  ****                              ****
Green/Cycle: 0.63 0.63 0.00  0.00 0.63 0.63  0.00 0.00 0.00  0.32 0.32 0.32
Volume/Cap: 0.10 0.10 0.00  0.00 0.42 0.42  0.00 0.00 0.00  0.33 0.33 0.00
Delay/Veh:   2.9  2.9  0.0   0.0  4.0  4.0   0.0  0.0  0.0  20.3 20.3  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  2.9  2.9  0.0   0.0  4.0  4.0   0.0  0.0  0.0  20.3 20.3  0.0
DesignQueue:   0    3    0     0   19    3     0    0    0     0    9    0
********************************************************************************
```

```
                              UC Berkeley LRDP EIR
                              Existing Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #38 Bancroft Way / Ellsworth Street
********************************************************************************
Average Delay (sec/veh):      4.0          Worst Case Level Of Service:      C
********************************************************************************
Approach:    North Bound      South Bound       East Bound       West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign         Stop Sign        Uncontrolled     Uncontrolled
Rights:          Include           Include           Include           Include
Lanes:       1  1  0  0  0    0  0  0  0  1    0  0  0  0  0    0  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    348   11    0     0    0  100     0    0    0     0  877    6
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 348   11    0     0    0  100     0    0    0     0  877    6
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:  366   12    0     0    0  105     0    0    0     0  923    6
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:  366   12    0     0    0  105     0    0    0     0  923    6
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp: 7.1  6.5 xxxxx xxxxx xxxx   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim: 3.5  4.0 xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 462  929 xxxxx  xxxx xxxx   465 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: 514  269 xxxxx  xxxx xxxx   602 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   424  269 xxxxx  xxxx xxxx   602 xxxx xxxx xxxxx  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 19.8 xxxx xxxxx xxxxx xxxx  12.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  C    *     *     *     *    B     *    *     *     *    *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: 410 xxxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxxx xxxxx  xxxx xxxxx xxxxx
Shrd StpDel: 21.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   C    *     *     *     *     *     *    *     *     *    *     *
ApproachDel:      20.7            12.2           xxxxxx           xxxxxx
ApproachLOS:       C               B               *                *
```

```
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #39 Bancroft Way / Dana Street
********************************************************************************
Average Delay (sec/veh):      0.0        Worst Case Level Of Service:       A
********************************************************************************
Approach:    North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign      Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:       0  0  0  0  0    0  0  0  0  0    0  0  0  0  0    0  1  2  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    0    0    0    0    0    0    0    0    0  282  873    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0    0    0    0    0    0    0    0    0  282  873    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume:  0    0    0    0    0    0    0    0    0  300  929    0
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:  0    0    0    0    0    0    0    0    0  300  929    0
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     *    *    *     A    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Shared LOS:   *    *    *     *    *    *     *    *    *     A    *    *
ApproachDel:    xxxxxx          xxxxxx          xxxxxx          xxxxxx
ApproachLOS:       *               *               *               *
```

```
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #40 Bancroft Way / Telegraph Avenue
********************************************************************************
Cycle (sec):        70            Critical Vol./Cap. (X):       0.344
Loss Time (sec):     8 (Y+R = 22 sec) Average Delay (sec/veh):      17.8
Optimal Cycle:      58            Level Of Service:             B
********************************************************************************
Approach:    North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:   29   0    0    0    0    0    0    0    0    0   21    0
Lanes:       2  0  0  0  0    0  0  0  0  0    0  0  0  0  0    0  0  3  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:   495    0    0    0    0    0    0    0    0    0  675    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:495    0    0    0    0    0    0    0    0    0  675    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89
PHF Volume: 556    0    0    0    0    0    0    0    0    0  758    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:556    0    0    0    0    0    0    0    0    0  758    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 556    0    0    0    0    0    0    0    0    0  758    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.91 1.00
Lanes:      2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.00 0.00
Final Sat.: 3502    0    0    0    0    0    0    0    0    0 5187    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.15 0.00
Crit Moves: ****                                             ****
Green/Cycle:0.42 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.30 0.00
Volume/Cap: 0.38 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.49 0.00
Delay/Veh:  13.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 21.2  0.0
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 13.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 21.2  0.0
DesignQueue: 13    0    0    0    0    0    0    0    0    0   21    0
********************************************************************************
```

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
--------------------------------------------------------------------------------
                        Level Of Service Computation Report
                  2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #41 Bancroft Way / Bowditch Street
********************************************************************************
Cycle (sec):       100         Critical Vol./Cap. (X):         0.456
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):     11.5
Optimal Cycle:       0         Level Of Service:                  B
********************************************************************************
Approach:     North Bound     South Bound     East Bound     West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:  0    0    0     0    0    0     0    0    0     0    0    0
Lanes:       1    0  0 0 0   0  0 0 0 0   0  0 0 0 0   0  1  1 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    191    0    0     0    0    0     0    0    0    99  494    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 191    0    0     0    0    0     0    0    0    99  494    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:  201    0    0     0    0    0     0    0    0   104  520    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 201    0    0     0    0    0     0    0    0   104  520    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  201    0    0     0    0    0     0    0    0   104  520    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      1.00 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.33 1.67 0.00
Final Sat.:  650    0    0     0    0    0     0    0    0   229 1163    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.31 xxxx xxxx  xxxx xxxx xxxx  xxxx xxxx xxxx  0.46 0.45 xxxx
Crit Moves: ****                                           ****
Delay/Veh:  10.6  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0  12.1 11.8  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 10.6  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0  12.1 11.8  0.0
LOS by Move:  B    *    *     *    *    *     *    *    *     B    B    *
ApproachDel:     10.6          xxxxxx          xxxxxx          11.8
Delay Adj:       1.00          xxxxx           xxxxx           1.00
ApprAdjDel:      10.6          xxxxxx          xxxxxx          11.8
LOS by Appr:      B              *               *              B
********************************************************************************
```

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                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
--------------------------------------------------------------------------------
                        Level Of Service Computation Report
                  2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #42 Bancroft Way / College Avenue
********************************************************************************
Cycle (sec):       100         Critical Vol./Cap. (X):         0.569
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):     12.3
Optimal Cycle:       0         Level Of Service:                  B
********************************************************************************
Approach:     North Bound     South Bound     East Bound     West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:  0    0    0     0    0    0     0    0    0     0    0    0
Lanes:       1    0  0 0 0   0  0 0 0 0   0  0 0 0 0   0  1  1 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    371    0    0     0    0    0     0    0    0    83  226    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 371    0    0     0    0    0     0    0    0    83  226    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:  408    0    0     0    0    0     0    0    0    91  248    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 408    0    0     0    0    0     0    0    0    91  248    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  408    0    0     0    0    0     0    0    0    91  248    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      1.00 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.54 1.46 0.00
Final Sat.:  716    0    0     0    0    0     0    0    0   324  911    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.57 xxxx xxxx  xxxx xxxx xxxx  xxxx xxxx xxxx  0.28 0.27 xxxx
Crit Moves: ****                                           ****
Delay/Veh:  14.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0  10.6 10.3  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 14.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0  10.6 10.3  0.0
LOS by Move:  B    *    *     *    *    *     *    *    *     B    B    *
ApproachDel:     14.0          xxxxxx          xxxxxx          10.4
Delay Adj:       1.00          xxxxx           xxxxx           1.00
ApprAdjDel:      14.0          xxxxxx          xxxxxx          10.4
LOS by Appr:      B              *               *              B
********************************************************************************
```

```
-------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #43 Bancroft Way / Piedmont Avenue
********************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):          0.825
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      20.9
Optimal Cycle:        0          Level Of Service:                   C
********************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0 1  0  0 0     0  0  0 1 0     0  0  0 0 0     0  0  0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    152  439    0     0  357  159     0    0    0     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 152  439    0     0  357  159     0    0    0     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90
PHF Volume:  169  488    0     0  397  177     0    0    0     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 169  488    0     0  397  177     0    0    0     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  169  488    0     0  397  177     0    0    0     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.26 0.74 0.00  0.00 0.69 0.31  0.00 0.00 0.00  0.00 0.00 0.00
Final Sat.:  205  592    0     0  567  252     0    0    0     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.82 0.82 xxxx  xxxx 0.70 0.70  xxxx xxxx xxxx  xxxx xxxx xxxx
Crit Moves: ****               ****
Delay/Veh:  24.6 24.6  0.0   0.0 16.7 16.7   0.0  0.0  0.0   0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 24.6 24.6  0.0   0.0 16.7 16.7   0.0  0.0  0.0   0.0  0.0  0.0
LOS by Move:  C    C    *     *    C    C     *    *    *     *    *    *
ApproachDel:    24.6             16.7           xxxxxx         xxxxxx
Delay Adj:      1.00             1.00           xxxxx          xxxxx
ApprAdjDel:     24.6             16.7           xxxxxx         xxxxxx
LOS by Appr:     C                C               *              *
********************************************************************************
```

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-------------------------------------------------------------------------------
                              UC Berkeley LRDP EIR
                              Existing Conditions
                                PM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #44 Durant Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):          0.643
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):      14.0
Optimal Cycle:       67          Level Of Service:                   B
********************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted      Prot+Permit        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  19   19   19    19   19   19    17   17   17     0    0    0
Lanes:        1 0  1  1 0     1  0  1 1 0     0  1  0 1 0     0  0  0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     69 1216  120    88 1099   51     9   72   55     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  69 1216  120    88 1099   51     9   72   55     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:   72 1267  125    92 1145   53     9   75   57     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  72 1267  125    92 1145   53     9   75   57     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   72 1267  125    92 1145   53     9   75   57     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.21 0.84 0.84  0.86 0.85 0.85  0.75 0.75 0.75  1.00 1.00 1.00
Lanes:      1.00 1.82 0.18  1.00 1.91 0.09  0.13 1.06 0.81  0.00 0.00 0.00
Final Sat.:  402 2919  288  1625 3083  143   190 1517 1159     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.18 0.43 0.43  0.06 0.37 0.37  0.05 0.05 0.05  0.00 0.00 0.00
Crit Moves:      ****            ****             ****
Green/Cycle: 0.45 0.45 0.45  0.60 0.60 0.60  0.23 0.23 0.23  0.00 0.00 0.00
Volume/Cap: 0.39 0.96 0.96  0.09 0.62 0.62  0.21 0.21 0.21  0.00 0.00 0.00
Delay/Veh:  12.4 24.3 24.3   6.6  1.5  1.5  23.9 23.9 23.9   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 12.4 24.3 24.3   6.6  1.5  1.5  23.9 23.9 23.9   0.0  0.0  0.0
DesignQueue:   2   31    3     2   20    1     0    2    2     0    0    0
********************************************************************************
```

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-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #45 Durant Avenue / Fulton Street
*******************************************************************************
Cycle (sec):          75           Critical Vol./Cap. (X):         0.372
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):      7.0
Optimal Cycle:        51           Level Of Service:                 A
*******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted         Permitted        Permitted
Rights:          Include          Include           Include          Include
Min. Green:    0    0    0   21   21    0   22   22   22    0    0    0
Lanes:         0  0  0  0  0  1  1  1  0  0  1  0  1  1  0  0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0  527  760    0  137  219   33    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0  527  760    0  137  219   33    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume:    0    0    0  567  817    0  147  235   35    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0    0    0  567  817    0  147  235   35    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0    0    0  567  817    0  147  235   35    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 0.95 1.00 0.98 0.93 0.93 1.00 1.00 1.00
Lanes:      0.00 0.00 0.00 1.23 1.77 0.00 1.00 1.74 0.26 0.00 0.00 0.00
Final Sat.:    0    0    0 2217 3198    0 1862 3075  463    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.26 0.26 0.00 0.08 0.08 0.08 0.00 0.00 0.00
Crit Moves:               ****               ****
Green/Cycle: 0.00 0.00 0.00 0.65 0.65 0.00 0.30 0.30 0.30 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.39 0.39 0.00 0.26 0.26 0.26 0.00 0.00 0.00
Delay/Veh:   0.0  0.0  0.0  2.9  2.9  0.0 21.1 20.5 20.5  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  2.9  2.9  0.0 21.1 20.5 20.5  0.0  0.0  0.0
DesignQueue:   0    0    0    9   12    0    4    7    1    0    0    0
*******************************************************************************
```

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-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #46 Durant Avenue / Telegraph Avenue
*******************************************************************************
Cycle (sec):          70           Critical Vol./Cap. (X):         0.361
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):     13.1
Optimal Cycle:        43           Level Of Service:                 B
*******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted         Permitted        Permitted
Rights:          Include          Include           Include          Include
Min. Green:    0   18   18    0    0    0   17   17    0    0    0    0
Lanes:         0  0  1  1  0  0  0  0  0  0  0  1  2  0  0  0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0  362  119    0    0    0  202  690    0    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0  362  119    0    0    0  202  690    0    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume:    0  373  123    0    0    0  208  711    0    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0  373  123    0    0    0  208  711    0    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0  373  123    0    0    0  208  711    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 1.00
Lanes:      0.00 1.51 0.49 0.00 0.00 0.00 0.68 2.32 0.00 0.00 0.00 0.00
Final Sat.:    0 2616  860    0    0    0 1175 4012    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.14 0.14 0.00 0.00 0.00 0.18 0.18 0.00 0.00 0.00 0.00
Crit Moves:       ****                        ****
Green/Cycle: 0.00 0.56 0.56 0.00 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.25 0.25 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.00 0.00
Delay/Veh:   0.0  5.5  5.5  0.0  0.0  0.0 17.2 17.2  0.0  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  5.5  5.5  0.0  0.0  0.0 17.2 17.2  0.0  0.0  0.0  0.0
DesignQueue:   0    7    2    0    0    0    5   18    0    0    0    0
*******************************************************************************
```

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #47 Durant Avenue / College Avenue
********************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):         0.335
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):  13.4
Optimal Cycle:      42          Level Of Service:               B
********************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0   18   18     0    0    0    16   16   16     0    0    0
Lanes:        0   0   0   1   0   1   0   0   0   1   0   1   1   0   0   0   0   0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0   189   62    16   56    0    127  268  202    0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0   189   62    16   56    0    127  268  202    0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:   0   203   67    17   60    0    137  288  217    0    0    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0   203   67    17   60    0    137  288  217    0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0   203   67    17   60    0    137  288  217    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.97 0.97  0.93 0.93 1.00  0.94 0.89 0.89  1.00 1.00 1.00
Lanes:      0.00 0.75 0.25  0.22 0.78 0.00  1.00 1.14 0.86  0.00 0.00 0.00
Final Sat.:   0  1383  454   391 1367   0   1778 1927 1452    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.15 0.15  0.04 0.04 0.00  0.08 0.15 0.15  0.00 0.00 0.00
Crit Moves:       ****                            ****
Green/Cycle: 0.00 0.46 0.46  0.46 0.46 0.00  0.43 0.43 0.43  0.00 0.00 0.00
Volume/Cap: 0.00 0.32 0.32  0.10 0.10 0.00  0.18 0.35 0.35  0.00 0.00 0.00
Delay/Veh:   0.0 13.1 13.1  11.0 11.0  0.0  12.9 14.1 14.1   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 13.1 13.1  11.0 11.0  0.0  12.9 14.1 14.1   0.0  0.0  0.0
DesignQueue:  0    4    1     0    1    0     3    7    5     0    0    0
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #48 Durant Avenue / Piedmont Avenue
********************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):         0.714
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):  17.6
Optimal Cycle:       0          Level Of Service:               C
********************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0   0   1   0   0   0   0   1   0   0   1   0   0   0   1   0   0   0   0   0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0   398    0     0   427    0    179    0   197    0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0   398    0     0   427    0    179    0   197    0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:   0   419    0     0   449    0    188    0   207    0    0    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0   419    0     0   449    0    188    0   207    0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0   419    0     0   449    0    188    0   207    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 1.00 0.00  0.00 1.00 0.00  1.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:   0   622    0     0   629    0    488    0   580    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx 0.67 xxxx  xxxx 0.71 xxxx  0.39 xxxx 0.36  xxxx xxxx  xxxx
Crit Moves:       ****             ****          ****
Delay/Veh:   0.0 18.9  0.0   0.0 20.8  0.0  13.9  0.0 11.6   0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 18.9  0.0   0.0 20.8  0.0  13.9  0.0 11.6   0.0  0.0  0.0
LOS by Move:  *    C    *     *    C    *     B    *    B     *    *    *
ApproachDel:      18.9             20.8          12.7        xxxxxx
Delay Adj:        1.00             1.00          1.00        xxxxx
ApprAdjDel:       18.9             20.8          12.7        xxxxxx
LOS by Appr:       C                C             B            *
********************************************************************************
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------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
******************************************************************************
Intersection #49 Channing Way / Shattuck Avenue
******************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):        0.759
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    6.0
Optimal Cycle:      53          Level Of Service:              A
******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16  16  16     16  16  16     22  22  22     22  22  22
Lanes:        1  0  1  1 0    1  0  1  1 0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     83 1279   94     19 1089   49     18   76   81    144   97  106
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  83 1279   94     19 1089   49     18   76   81    144   97  106
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93   0.93 0.93 0.93   0.93 0.93 0.93   0.93 0.93 0.93
PHF Volume:   89 1375  101     20 1171   53     19   82   87    155  104  114
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  89 1375  101     20 1171   53     19   82   87    155  104  114
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   89 1375  101     20 1171   53     19   82   87    155  104  114
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.23 0.94 0.94  0.18 0.94 0.94  0.89 0.89 0.89  0.74 0.74 0.74
Lanes:      1.00 1.86 0.14  1.00 1.91 0.09  0.10 0.43 0.47  0.41 0.28 0.31
Final Sat.:  435 3329  245    338 3434  155    174  733  781    584  393  430
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.21 0.41 0.41  0.06 0.34 0.34  0.11 0.11 0.11  0.27 0.27 0.27
Crit Moves:      ****                                           ****
Green/Cycle:0.59 0.59 0.59  0.59 0.59 0.59  0.36 0.36 0.36  0.36 0.36 0.36
Volume/Cap: 0.35 0.70 0.70  0.10 0.57 0.57  0.31 0.31 0.31  0.74 0.74 0.74
Delay/Veh:   3.9  2.2  2.2   1.2  1.4  1.4  18.6 18.6 18.6   30.1 30.1 30.1
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  3.9  2.2  2.2   1.2  1.4  1.4  18.6 18.6 18.6   30.1 30.1 30.1
DesignQueue:   2   25    2      0   21    1      1    2    2      4    3    3
******************************************************************************
```

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------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Base Volume Alternative)
******************************************************************************
Intersection #50 Channing Way / Fulton Street
******************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):        0.710
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):   18.0
Optimal Cycle:       0          Level Of Service:              C
******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:   0   0   0      0   0   0      0   0   0      0   0   0
Lanes:        0  0  0  0 0    0  1  0  1 0    0  0  0  1  0    0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0     48  686   61      0  133   38     15  257    0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   0    0    0     48  686   61      0  133   38     15  257    0
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    0.92 0.92 0.92   0.92 0.92 0.92   0.92 0.92 0.92   0.92 0.92 0.92
PHF Volume:    0    0    0     52  746   66      0  145   41     16  279    0
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   0    0    0     52  746   66      0  145   41     16  279    0
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    0    0    0     52  746   66      0  145   41     16  279    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:      0.00 0.00 0.00   0.12 1.73 0.15   0.00 0.78 0.22   0.06 0.94 0.00
Final Sat.:    0    0    0     73 1065   96      0  454  130     33  562    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx xxxx xxxx  0.71 0.70 0.69  xxxx 0.32 0.32  0.50 0.50 xxxx
Crit Moves:                      ****                ****           ****
Delay/Veh:   0.0  0.0  0.0  21.4 20.6 19.9   0.0 11.6 11.6  14.4 14.4  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  21.4 20.6 19.9   0.0 11.6 11.6  14.4 14.4  0.0
LOS by Move:  *    *    *     C    C    C     *    B    B     B    B    *
ApproachDel: xxxxxx          20.6            11.6            14.4
Delay Adj:    xxxxx          1.00            1.00            1.00
ApprAdjDel:  xxxxxx          20.6            11.6            14.4
LOS by Appr:    *              C               B               B
******************************************************************************
```

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #51 Channing Way / Telegraph Avenue
*******************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):        0.384
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   12.7
Optimal Cycle:       43          Level Of Service:                  B
*******************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  18   18   18     0    0    0    17   17    0     0   17   17
Lanes:        0    1    0 1    0    0    0 0    0    1    0 0    0    0    1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 1 Sep 1997 << 4:00 - 6:00 PM
Base Vol:     86  410   41     0    0    0    23  144    0     0  227   46
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  86  410   41     0    0    0    23  144    0     0  227   46
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.88 0.88 0.88  0.88 0.88 0.88  0.88 0.88 0.88  0.88 0.88 0.88
PHF Volume:   98  466   47     0    0    0    26  164    0     0  258   52
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  98  466   47     0    0    0    26  164    0     0  258   52
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.98 0.98
Final Vol.:   98  466   47     0    0    0    26  164    0     0  258   52
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.93 0.93 0.93  1.00 1.00 1.00  0.93 0.93 1.00  1.00 0.98 0.98
Lanes:      0.32 1.53 0.15  0.00 0.00 0.00  0.14 0.86 0.00  0.00 0.83 0.17
Final Sat.:  565 2696  270     0    0    0   244 1527    0     0 1544  313
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.17 0.17 0.17  0.00 0.00 0.00  0.11 0.11 0.00  0.00 0.17 0.17
Crit Moves:      ****                                            ****
Green/Cycle: 0.56 0.56 0.56  0.00 0.00 0.00  0.33 0.33 0.00  0.00 0.33 0.33
Volume/Cap: 0.31 0.31 0.31  0.00 0.00 0.00  0.33 0.33 0.00  0.00 0.51 0.51
Delay/Veh:   5.8  5.8  5.8   0.0  0.0  0.0  19.4 19.4  0.0   0.0 22.3 22.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  5.8  5.8  5.8   0.0  0.0  0.0  19.4 19.4  0.0   0.0 22.3 22.3
DesignQueue:   2    8    1     0    0    0     1    4    0     0    7    1
*******************************************************************************
```

```
                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #52 Channing Way / College Avenue
*******************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.464
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   10.4
Optimal Cycle:       43          Level Of Service:                  B
*******************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    17   17   17    17   17   17
Lanes:        0    0    1!0   0    0    1!0   0    0    1!0   0    0    1!0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     31  189   41     7  206   24     5   95   58   124  141   47
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  31  189   41     7  206   24     5   95   58   124  141   47
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.87 0.87 0.87  0.87 0.87 0.87  0.87 0.87 0.87  0.87 0.87 0.87
PHF Volume:   36  217   47     8  237   28     6  109   67   143  162   54
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  36  217   47     8  237   28     6  109   67   143  162   54
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   36  217   47     8  237   28     6  109   67   143  162   54
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.93 0.93 0.93  0.98 0.98 0.98  0.94 0.94 0.94  0.80 0.80 0.80
Lanes:      0.12 0.72 0.16  0.03 0.87 0.10  0.03 0.60 0.37  0.40 0.45 0.15
Final Sat.:  209 1276  277    55 1614  188    56 1073  655   602  684  228
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.17 0.17 0.17  0.15 0.15 0.15  0.10 0.10 0.10  0.24 0.24 0.24
Crit Moves:      ****                                            ****
Green/Cycle: 0.60 0.60 0.60  0.60 0.60 0.60  0.41 0.41 0.41  0.41 0.41 0.41
Volume/Cap: 0.28 0.28 0.28  0.24 0.24 0.24  0.25 0.25 0.25  0.58 0.58 0.58
Delay/Veh:   4.1  4.1  4.1   3.9  3.9  3.9  13.5 13.5 13.5  18.9 18.9 18.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  4.1  4.1  4.1   3.9  3.9  3.9  13.5 13.5 13.5  18.9 18.9 18.9
DesignQueue:   1    3    1     0    3    0     0    2    1     3    4    1
*******************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #53 Haste Street / Shattuck Avenue
*******************************************************************************
Cycle (sec):         75         Critical Vol./Cap. (X):          0.704
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    10.0
Optimal Cycle:       57         Level Of Service:                   A
*******************************************************************************
Approach:      North Bound    South Bound     East Bound     West Bound
Movement:      L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:  22   22    0     0   22   22     0    0    0    27   27   27
Lanes:        1  0  2  0  0   0  0  1  1  0   0  0  0  0  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    104 1277    0     0 1208   88     0    0    0   268  336  152
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 104 1277    0     0 1208   88     0    0    0   268  336  152
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume:  112 1373    0     0 1299   95     0    0    0   288  361  163
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 112 1373    0     0 1299   95     0    0    0   288  361  163
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  112 1373    0     0 1299   95     0    0    0   288  361  163
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900 1900 1900 1900
Adjustment: 0.16 0.95 1.00  1.00 0.94 0.94  1.00 1.00 1.00 0.89 0.89 0.89
Lanes:      1.00 2.00 0.00  0.00 1.86 0.14  0.00 0.00 0.00 0.71 0.89 0.40
Final Sat.:  306 3610    0     0 3331  243     0    0    0  1204 1510  683
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.37 0.38 0.00  0.00 0.39 0.39  0.00 0.00 0.00 0.24 0.24 0.24
Crit Moves:            ****                       ****
Green/Cycle: 0.53 0.53 0.00  0.00 0.53 0.53  0.00 0.00 0.00 0.36 0.36 0.36
Volume/Cap: 0.69 0.71 0.00  0.00 0.73 0.73  0.00 0.00 0.00 0.66 0.66 0.66
Delay/Veh:  24.0  5.4  0.0   0.0  5.7  5.7   0.0  0.0  0.0 23.1 23.1 23.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 24.0  5.4  0.0   0.0  5.7  5.7   0.0  0.0  0.0 23.1 23.1 23.1
DesignQueue:   2   29    0     0   27    2     0    0    0     8   10    5
*******************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #54 Haste Street / Fulton Street
*******************************************************************************
Cycle (sec):         80         Critical Vol./Cap. (X):          0.494
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    18.9
Optimal Cycle:       53         Level Of Service:                   B
*******************************************************************************
Approach:      North Bound    South Bound     East Bound     West Bound
Movement:      L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:   0    0    0     0   25   25     0    0    0    20   20    0
Lanes:        0  0  0  0  0   0  0  1  1  0   0  0  0  0  0   0  1  1  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0     0  580  154     0    0    0    50  604    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0     0  580  154     0    0    0    50  604    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.88 0.88 0.88  0.88 0.88 0.88  0.88 0.88 0.88 0.88 0.88 0.88
PHF Volume:    0    0    0     0  659  175     0    0    0    57  686    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0    0     0  659  175     0    0    0    57  686    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0    0    0     0  659  175     0    0    0    57  686    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00  1.00 0.92 0.92  1.00 1.00 1.00 0.95 0.95 1.00
Lanes:      0.00 0.00 0.00  0.00 1.58 0.42  0.00 0.00 0.00 0.15 1.85 0.00
Final Sat.:    0    0    0     0 2764  734     0    0    0   276 3334    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00  0.00 0.24 0.24  0.00 0.00 0.00 0.21 0.21 0.00
Crit Moves:            ****                       ****
Green/Cycle: 0.00 0.00 0.00  0.00 0.69 0.69  0.00 0.00 0.00 0.26 0.26 0.00
Volume/Cap: 0.00 0.00 0.00  0.00 0.35 0.35  0.00 0.00 0.00 0.78 0.78 0.00
Delay/Veh:   0.0  0.0  0.0   0.0  5.5  5.5   0.0  0.0  0.0 33.9 33.9  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0   0.0  5.5  5.5   0.0  0.0  0.0 33.9 33.9  0.0
DesignQueue:   0    0    0     0   10    3     0    0    0     2   23    0
*******************************************************************************
```

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                             UC Berkeley LRDP EIR
                             Existing Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #55 Haste Street / Telegraph Avenue
********************************************************************************
Cycle (sec):        70           Critical Vol./Cap. (X):        0.416
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    12.5
Optimal Cycle:      40           Level Of Service:                 B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   16   16    0    0    0    0    0    0    0    0   16   16
Lanes:         0    1    1  0  0    0    0  0  0    0    0  0  0    0    1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     186  476    0    0    0    0    0    0    0    0  470   57
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  186  476    0    0    0    0    0    0    0    0  470   57
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume:   207  529    0    0    0    0    0    0    0    0  522   63
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  207  529    0    0    0    0    0    0    0    0  522   63
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   207  529    0    0    0    0    0    0    0    0  522   63
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.95 0.95 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.93 0.93
Lanes:       0.56 1.44 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.78 0.22
Final Sat.:  1014 2596    0    0    0    0    0    0    0    0 3168  384
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.20 0.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.16 0.16
Crit Moves:       ****                                            ****
Green/Cycle: 0.40 0.40 0.40 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.55 0.55
Volume/Cap:  0.51 0.51 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.30 0.30
Delay/Veh:   15.4 15.4  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  8.9  8.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  15.4 15.4  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  8.9  8.9
DesignQueue:    5   13    0    0    0    0    0    0    0    0    9    1
********************************************************************************
```

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                             UC Berkeley LRDP EIR
                             Existing Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #56 Haste Street / College Avenue
********************************************************************************
Cycle (sec):        70           Critical Vol./Cap. (X):        0.405
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     9.3
Optimal Cycle:      40           Level Of Service:                 A
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   16   16    0    0   16   16    0    0    0   16   16   16
Lanes:         0    1    0  0  0    0    0  0  1    0    0  0  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      88  236    0    0  337   56    0    0    0   90  244   29
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   88  236    0    0  337   56    0    0    0   90  244   29
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
PHF Volume:   100  268    0    0  383   64    0    0    0  102  277   33
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  100  268    0    0  383   64    0    0    0  102  277   33
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   100  268    0    0  383   64    0    0    0  102  277   33
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.80 0.80 1.00 1.00 0.98 0.98 1.00 1.00 1.00 0.93 0.93 0.93
Lanes:       0.27 0.73 0.00 0.00 0.86 0.14 0.00 0.00 0.00 0.50 1.34 0.16
Final Sat.:   413 1109    0    0 1598  266    0    0    0  874 2369  282
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.24 0.24 0.00 0.00 0.24 0.24 0.00 0.00 0.00 0.12 0.12 0.12
Crit Moves:       ****                                            ****
Green/Cycle: 0.70 0.70 0.00 0.00 0.70 0.70 0.00 0.00 0.00 0.25 0.25 0.25
Volume/Cap:  0.35 0.35 0.00 0.00 0.34 0.34 0.00 0.00 0.00 0.47 0.47 0.47
Delay/Veh:    2.0  2.0  0.0  0.0  1.8  1.8  0.0  0.0  0.0 24.1 24.1 24.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   2.0  2.0  0.0  0.0  1.8  1.8  0.0  0.0  0.0 24.1 24.1 24.1
DesignQueue:    1    3    0    0    5    1    0    0    0    3    8    1
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #57 Dwight Way / Martin Luther King Way
********************************************************************************
Cycle (sec):       75          Critical Vol./Cap. (X):        0.871
Loss Time (sec):   12 (Y+R =  4 sec) Average Delay (sec/veh):    17.6
Optimal Cycle:     85          Level Of Service:                  B
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R   L  -  T  -  R    L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted       Permitted
Rights:          Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    21   21   21     0    0    0
Lanes:        0   1    0  1   0   1    0  1   0   1    0  1   0    0   0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:      71  821   60   113  860  272    49  444  111     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   71  821   60   113  860  272    49  444  111     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:    76  873   64   120  915  289    52  472  118     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   76  873   64   120  915  289    52  472  118     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    76  873   64   120  915  289    52  472  118     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.69 0.69 0.69  0.64 0.64 0.64  0.90 0.90 0.90  1.00 1.00 1.00
Lanes:       0.15 1.72 0.13  0.18 1.38 0.44  0.16 1.47 0.37  0.00 0.00 0.00
Final Sat.:   195 2258  165   221 1683  532   277 2507  627     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.39 0.39 0.39  0.54 0.54 0.54  0.19 0.19 0.19  0.00 0.00 0.00
Crit Moves:            ****            ****            ****
Green/Cycle: 0.49 0.49 0.49  0.61 0.61 0.61  0.31 0.31 0.31  0.00 0.00 0.00
Volume/Cap:  0.78 0.78 0.78  0.89 0.89 0.89  0.60 0.60 0.60  0.00 0.00 0.00
Delay/Veh:   17.0 17.0 17.0  14.8 14.8 14.8  24.3 24.3 24.3   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  17.0 17.0 17.0  14.8 14.8 14.8  24.3 24.3 24.3   0.0  0.0  0.0
DesignQueue:    2   20    1     2   16    5     2   14    4     0    0    0
********************************************************************************
```

```
                            UC Berkeley LRDP EIR
                            Existing Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #58 Dwight Way / Shattuck Avenue
********************************************************************************
Cycle (sec):       75          Critical Vol./Cap. (X):        0.841
Loss Time (sec):   12 (Y+R =  5 sec) Average Delay (sec/veh):    12.9
Optimal Cycle:     78          Level Of Service:                  B
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R   L  -  T  -  R    L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Prot+Permit       Permitted       Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0   0    1  1   1   0    1  1   0   1    0  1   0    0   0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       0 1273  123   133 1390    0    77  426  200     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0 1273  123   133 1390    0    77  426  200     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:     0 1326  128   139 1448    0    80  444  208     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0 1326  128   139 1448    0    80  444  208     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:     0 1326  128   139 1448    0    80  444  208     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 0.94 0.94  0.24 0.95 0.95  0.87 0.87 0.87  1.00 1.00 1.00
Lanes:       0.00 1.82 0.18  1.00 2.00 0.00  0.22 1.21 0.57  0.00 0.00 0.00
Final Sat.:     0 3249  314   462 3610    0   362 2003  941     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.41 0.41  0.30 0.40 0.00  0.22 0.22 0.22  0.00 0.00 0.00
Crit Moves:            ****   ****                   ****
Green/Cycle: 0.00 0.49 0.49  0.58 0.58 0.00  0.26 0.26 0.26  0.00 0.00 0.00
Volume/Cap:  0.00 0.84 0.84  0.52 0.70 0.00  0.84 0.84 0.84  0.00 0.00 0.00
Delay/Veh:    0.0 11.4 11.4  10.9  3.0  0.0  35.8 35.8 35.8   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 11.4 11.4  10.9  3.0  0.0  35.8 35.8 35.8   0.0  0.0  0.0
DesignQueue:    0   31    3     5   28    0     3   14    7     0    0    0
********************************************************************************
```

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                             UC Berkeley LRDP EIR
                             Existing Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #59 Dwight Way / Fulton Street
********************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):        0.554
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     14.0
Optimal Cycle:      45          Level Of Service:                 B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0    0   21   21    0    0    0   16   16    0    0    0
Lanes:        0  0  0  0  1    2  0  0  0  0    0  0  1  1  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0    0   62  631    0    0    0  664   15    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0   62  631    0    0    0  664   15    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:   0    0   65  664    0    0    0  699   16    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0    0   65  664    0    0    0  699   16    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0    0   65  664    0    0    0  699   16    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.87 0.59 1.00 1.00 1.00 0.95 0.95 1.00 1.00 1.00
Lanes:      0.00 0.00 1.00 2.00 0.00 0.00 0.00 1.96 0.04 0.00 0.00 0.00
Final Sat.:   0    0 1644 2241    0    0    0 3520   80    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.04 0.30 0.00 0.00 0.00 0.20 0.20 0.00 0.00 0.00
Crit Moves:           ****                        ****
Green/Cycle: 0.00 0.00 0.55 0.55 0.00 0.00 0.00 0.41 0.41 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.07 0.54 0.00 0.00 0.00 0.49 0.49 0.00 0.00 0.00
Delay/Veh:   0.0  0.0  8.2 12.7  0.0  0.0  0.0 15.8 15.8  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  8.2 12.7  0.0  0.0  0.0 15.8 15.8  0.0  0.0  0.0
DesignQueue:  0    0    1   13    0    0    0   18    0    0    0    0
********************************************************************************
```

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                             UC Berkeley LRDP EIR
                             Existing Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #60 Dwight Way / Telegraph Avenue
********************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):        0.851
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     20.2
Optimal Cycle:      70          Level Of Service:                 C
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0   15   15    0    0    0   17   17   17    0    0    0
Lanes:        0  0  1  1  0    0  0  0  0  0    0  1  0  1  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0  590  149    0    0    0  130  671  813    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  590  149    0    0    0  130  671  813    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:   0  602  152    0    0    0  133  685  830    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  602  152    0    0    0  133  685  830    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  602  152    0    0    0  133  685  830    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 1.00 1.00 1.00 0.81 0.81 0.81 1.00 1.00 1.00
Lanes:      0.00 1.60 0.40 0.00 0.00 0.00 0.16 0.84 1.00 0.00 0.00 0.00
Final Sat.:   0 2796  706    0    0    0  250 1291 1541    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.22 0.22 0.00 0.00 0.00 0.53 0.53 0.54 0.00 0.00 0.00
Crit Moves:      ****                        ****
Green/Cycle: 0.00 0.25 0.39 0.00 0.00 0.00 0.63 0.63 0.63 0.00 0.00 0.00
Volume/Cap: 0.00 0.85 0.56 0.00 0.00 0.00 0.84 0.84 0.85 0.00 0.00 0.00
Delay/Veh:   0.0 35.5 17.0  0.0  0.0  0.0 14.5 14.5 15.2  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 35.5 17.0  0.0  0.0  0.0 14.5 14.5 15.2  0.0  0.0  0.0
DesignQueue:  0   18    4    0    0    0    2   11   13    0    0    0
********************************************************************************
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                              UC Berkeley LRDP EIR
                              Existing Conditions
                              PM Peak Hour

                      Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #61 Dwight Way / College Avenue
****
Cycle (sec):   70   Critical Vol./Cap. (X):   0.535
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   15.2
Optimal Cycle: 39   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 0   16   16   16   16   0   15   15   15   0   0   0
Lanes: 0   0   1   0   0   1   0   0   0   1   0   1   0   0   0   0   0   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0 294   52   49 374   0   34 483 129   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 294   52   49 374   0   34 483 129   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 323   57   54 411   0   37 531 142   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0 323   57   54 411   0   37 531 142   0   0   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0 323   57   54 411   0   37 531 142   0   0   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.98 0.98 0.93 0.93 1.00 0.89 0.89 0.89 1.00 1.00 1.00
Lanes: 0.00 0.85 0.15 0.12 0.88 0.00 0.10 1.50 0.40 0.00 0.00 0.00
Final Sat.:   0 1582   280   204 1554   0   179 2540 678   0   0   0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.20 0.20 0.26 0.26 0.00 0.21 0.21 0.21 0.00 0.00 0.00
Crit Moves: ****   ****
Green/Cycle: 0.00 0.59 0.59 0.59 0.59 0.00 0.29 0.29 0.29 0.00 0.00 0.00
Volume/Cap: 0.00 0.34 0.34 0.45 0.45 0.00 0.72 0.72 0.72 0.00 0.00 0.00
Delay/Veh: 0.0 5.1   5.1   6.0 6.0   0.0 26.6 26.6 26.6   0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 5.1   5.1   6.0 6.0   0.0 26.6 26.6 26.6   0.0 0.0 0.0
DesignQueue: 0   5   1   1   7   0   1   15   4   0   0   0
****

                              UC Berkeley LRDP EIR
                              Existing Conditions
                              PM Peak Hour

                      Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
****
Intersection #62 Dwight Way / Piedmont Avenue / Warring Street
****
Cycle (sec):   70   Critical Vol./Cap. (X):   0.417
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   13.1
Optimal Cycle: 61   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 0   29   29   29   29   0   24   24   24   24   0   24
Lanes: 0   0   1   1   0   0   1   1   0   0   1   0   1   0   1   0   0   1! 0   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0 527   1   8 353   0   132 162 307   53   0 112
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 527   1   8 353   0   132 162 307   53   0 112
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 579   1   9 388   0   145 178 337   58   0 123
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0 579   1   9 388   0   145 178 337   58   0 123
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0 579   1   9 388   0   145 178 337   58   0 123
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.95 0.90 0.90 1.00 0.68 1.00 0.85 0.79 1.00 0.79
Lanes: 0.00 1.99 0.01 0.04 1.96 0.00 1.00 1.00 1.00 0.32 0.00 0.68
Final Sat.:   0 3603   7   75 3329   0 1288 1900 1615   482   0 1018
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.16 0.12 0.12 0.00 0.11 0.09 0.21 0.12 0.00 0.12
Crit Moves: ****   ****
Green/Cycle: 0.00 0.46 0.46 0.46 0.46 0.00 0.41 0.41 0.41 0.41 0.00 0.41
Volume/Cap: 0.00 0.35 0.35 0.25 0.25 0.00 0.27 0.23 0.50 0.29 0.00 0.29
Delay/Veh: 0.0 12.1 12.1 11.5 11.5   0.0 13.8 13.4 15.8 13.9 0.0 13.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 12.1 12.1 11.5 11.5   0.0 13.8 13.4 15.8 13.9 0.0 13.9
DesignQueue: 0   12   0   0   8   0   3   4   8   1   0   3
****

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-------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                             Existing Conditions
                               PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #63 Dwight Avenue / Prospect Street
*******************************************************************************
Average Delay (sec/veh):      5.7        Worst Case Level Of Service:      B
*******************************************************************************
Approach:     North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:       0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    0    0    0     27    0   165    187  128    0     0   93   16
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 0    0    0     27    0   165    187  128    0     0   93   16
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.85 0.85 0.85  0.85 0.85 0.85   0.85 0.85 0.85  0.85 0.85 0.85
PHF Volume:  0    0    0     32    0   194    220  151    0     0  109   19
Reduct Vol:  0    0    0      0    0     0      0    0    0     0    0    0
Final Vol.:  0    0    0     32    0   194    220  151    0     0  109   19
-----------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4 xxxx   6.2   4.1 xxxx xxxxx  xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5 xxxx   3.3   2.2 xxxx xxxxx  xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   709 xxxx   119   128 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   403 xxxx   938  1470 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   351 xxxx   938  1470 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   7.9 xxxx xxxxx  xxxxx xxxx xxxxx
LOS by Move:   *    *    *     *    *    *      A    *    *      *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  759 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 11.7 xxxxx   7.9 xxxx xxxxx  xxxxx xxxx xxxxx
Shared LOS:   *    *    *     *     B    *      A    *    *      *    *    *
ApproachDel:      xxxxxx            11.7            xxxxxx            xxxxxx
ApproachLOS:        *                 B               *                 *
```

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-------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                             Existing Conditions
                               PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #64 Adeline Street / Ward Avenue / Shattuck Avenue
*******************************************************************************
Cycle (sec):         90         Critical Vol./Cap. (X):        0.907
Loss Time (sec):      8 (Y+R =  6 sec) Average Delay (sec/veh):      24.4
Optimal Cycle:       99         Level Of Service:              C
*******************************************************************************
Approach:     North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Protected        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  0   25   25     0   25   25     19    0   19     0    0    0
Lanes:       0  0  0  1  0    0  0  2  0  1    2  0  0  0  1    0  0  0  0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    0  690    5      0  957  825    903    0    2     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 0  690    5      0  957  825    903    0    2     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93   0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:  0  742    5      0 1029  887    971    0    2     0    0    0
Reduct Vol:  0    0    0      0    0    0      0    0    0     0    0    0
Reduced Vol: 0  742    5      0 1029  887    971    0    2     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  0  742    5      0 1029  887    971    0    2     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900   1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  1.00 0.95 0.85   0.92 1.00 0.85  1.00 1.00 1.00
Lanes:      0.00 0.99 0.01  0.00 2.00 1.00   2.00 0.00 1.00  0.00 0.00 1.00
Final Sat.:  0 1884   14      0 3610 1615   3502    0 1615     0    0 1900
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.39 0.39  0.00 0.29 0.55   0.28 0.00 0.00  0.00 0.00 0.00
Crit Moves:                           ****   ****
Green/Cycle: 0.00 0.61 0.61  0.00 0.61 0.61   0.31 0.00 0.31  0.00 0.00 0.00
Volume/Cap: 0.00 0.65 0.65  0.00 0.47 0.91   0.91 0.00 0.00  0.00 0.00 0.00
Delay/Veh:   0.0 14.4 14.4   0.0 10.5 29.1   42.7  0.0 21.7   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 14.4 14.4   0.0 10.5 29.1   42.7  0.0 21.7   0.0  0.0  0.0
DesignQueue: 0   16    0      0   22   19     36    0    0     0    0    0
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                           UC Berkeley LRDP EIR
                           Existing Conditions
                             PM Peak Hour
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                   Level Of Service Computation Report
           2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #65 Derby Street / Warring Street
********************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):          1.399
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):   185.8
Optimal Cycle:        0          Level Of Service:                  F
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0  0  0  0  0   0  0  1! 0  0   0  1  0  0  0   0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0    0    0   765    0   30     7   62    0     0   75  780
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0    0   765    0   30     7   62    0     0   75  780
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:   0    0    0   805    0   32     7   65    0     0   79  821
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0    0    0   805    0   32     7   65    0     0   79  821
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0    0    0   805    0   32     7   65    0     0   79  821
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.00 0.00 0.00 0.96 0.00 0.04 0.10 0.90 0.00 0.00 0.09 0.91
Final Sat.:   0    0    0   576    0   23    53  471    0     0   59  613
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   xxxx xxxx xxxx 1.40 xxxx 1.40 0.14 0.14 xxxx xxxx 1.34 1.34
Crit Moves:                 ****           ****           ****
Delay/Veh:   0.0  0.0  0.0 207.6 0.0 207.6 11.0 11.0  0.0  0.0 180 179.7
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 207.6 0.0 207.6 11.0 11.0  0.0  0.0 180 179.7
LOS by Move:  *    *    *    F    *    F    B    B    *    *    F    F
ApproachDel:  xxxxxx           207.6           11.0           179.7
Delay Adj:    xxxxx            1.00            1.00            1.00
ApprAdjDel:   xxxxxx           207.6           11.0           179.7
LOS by Appr:    *                F               B               F
********************************************************************************
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                           UC Berkeley LRDP EIR
                           Existing Conditions
                             PM Peak Hour
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                   Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #66 Derby Street / Claremont Blvd.
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.718
Loss Time (sec):      8 (Y+R =  5 sec) Average Delay (sec/veh):    15.8
Optimal Cycle:       61          Level Of Service:                  B
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18    0   18     0    0    0     0   35   35    35   35    0
Lanes:        0  0  1! 0  0   0  0  0  0  0   0  0  0  1  0   0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     4    0  225     0    0    0     0  872   11    31  741    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  4    0  225     0    0    0     0  872   11    31  741    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
PHF Volume:   4    0  234     0    0    0     0  908   11    32  772    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  4    0  234     0    0    0     0  908   11    32  772    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   4    0  234     0    0    0     0  908   11    32  772    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 1.00 0.87 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.02 0.00 0.98 0.00 0.00 0.00 0.00 0.99 0.01 0.04 0.96 0.00
Final Sat.:  29    0 1618     0    0    0     0 1873   24    76 1824    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.14 0.00 0.14 0.00 0.00 0.00 0.00 0.49 0.49 0.42 0.42 0.00
Crit Moves: ****                               ****
Green/Cycle: 0.28 0.00 0.28 0.00 0.00 0.00 0.00 0.60 0.60 0.60 0.60 0.00
Volume/Cap: 0.52 0.00 0.52 0.00 0.00 0.00 0.00 0.81 0.81 0.71 0.71 0.00
Delay/Veh:  24.1  0.0 24.1  0.0  0.0  0.0  0.0 16.3 16.3 12.7 12.7  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 24.1  0.0 24.1  0.0  0.0  0.0  0.0 16.3 16.3 12.7 12.7  0.0
DesignQueue:  0    0    6     0    0    0     0   15    0     1   12
********************************************************************************
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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #67 Ashby Avenue / Seventh Street
********************************************************************************
Cycle (sec):        110           Critical Vol./Cap. (X):        0.958
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):   51.8
Optimal Cycle:      155           Level Of Service:                 D
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted      Split Phase     Split Phase
Rights:          Include          Include          Include         Include
Min. Green:  19   19   19    19   19   19    22   22   22    20   20   20
Lanes:        0  1  0  1  0   0  1  0  1  0   1  0  1  1  0   1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:    134  404   68   107  270  476   263  546  113    98  774   31
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 134  404   68   107  270  476   263  546  113    98  774   31
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:  140  421   71   111  281  496   274  569  118   102  806   32
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 140  421   71   111  281  496   274  569  118   102  806   32
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  140  421   71   111  281  496   274  569  118   102  806   32
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.51 0.51 0.51  0.62 0.62 0.62  0.95 0.93 0.93  0.95 0.94 0.94
Lanes:      0.44 1.34 0.22  0.28 0.72 1.00  1.00 1.66 0.34  1.00 1.92 0.08
Final Sat.:  427 1287  217   332  837 1169  1805 2913  603  1805 3450  138
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.33 0.33 0.33  0.34 0.34 0.42  0.15 0.20 0.20  0.06 0.23 0.23
Crit Moves:                      ****            ****            ****
Green/Cycle: 0.44 0.44 0.44  0.44 0.44 0.44  0.20 0.20 0.20  0.24 0.24 0.24
Volume/Cap: 0.74 0.74 0.74  0.76 0.76 0.96  0.74 0.96 0.96  0.23 0.96 0.96
Delay/Veh:  31.0 31.0 31.0  30.3 30.3 50.5  56.0 70.3 70.3  35.4 63.8 63.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 31.0 31.0 31.0  30.3 30.3 50.5  56.0 70.3 70.3  35.4 63.8 63.8
DesignQueue:   5   15    3     4   10   18    14   29    6     5   39    2
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #68 Ashby Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):        110           Critical Vol./Cap. (X):        0.739
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   31.4
Optimal Cycle:       55           Level Of Service:                 C
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Permitted       Permitted
Rights:          Include          Include          Include         Include
Min. Green:   4   17   17     4   19   19    18   18   18    18   18   18
Lanes:        1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:    162  999   79   185  873  113    86  592  170    20  612  143
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 162  999   79   185  873  113    86  592  170    20  612  143
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:  172 1063   84   197  929  120    91  630  181    21  651  152
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 172 1063   84   197  929  120    91  630  181    21  651  152
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  172 1063   84   197  929  120    91  630  181    21  651  152
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.94 0.94  0.95 0.93 0.93  0.19 0.92 0.92  0.85 0.85 0.85
Lanes:      1.00 1.85 0.15  1.00 1.77 0.23  1.00 1.55 0.45  0.05 1.58 0.37
Final Sat.: 1805 3309  262  1805 3142  407   363 2712  779    83 2555  597
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.10 0.32 0.32  0.11 0.30 0.30  0.25 0.23 0.23  0.25 0.25 0.25
Crit Moves:      ****            ****                            ****
Green/Cycle: 0.14 0.43 0.43  0.15 0.44 0.44  0.34 0.34 0.34  0.34 0.34 0.34
Volume/Cap: 0.67 0.74 0.74  0.74 0.67 0.67  0.73 0.67 0.67  0.74 0.74 0.74
Delay/Veh:  51.5 27.8 27.8  55.3 25.6 25.6  49.5 30.7 30.7  32.7 32.7 32.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 51.5 27.8 27.8  55.3 25.6 25.6  49.5 30.7 30.7  32.7 32.7 32.7
DesignQueue:   9   39    3    10   34    4     4   26    8     1   27    6
********************************************************************************
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--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                          PM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
**************************************************************************
Intersection #69 Ashby Avenue / Adeline Street
**************************************************************************
Cycle (sec):        140          Critical Vol./Cap. (X):      0.522
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   36.7
Optimal Cycle:       86          Level Of Service:               D
**************************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Protected       Protected       Protected       Protected
Rights:          Include         Include         Include         Include
Min. Green:   4   32   32    6   38   38    4   22   22    4   32   32
Lanes:      1 0  1  1 0   1 0  2  1 0   1 0  1  1 0   1 0  1  1 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      92  693   85   31  700  169  135  491   39   68  547   39
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   92  693   85   31  700  169  135  491   39   68  547   39
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume:    98  737   90   33  745  180  144  522   41   72  582   41
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   98  737   90   33  745  180  144  522   41   72  582   41
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    98  737   90   33  745  180  144  522   41   72  582   41
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.95 0.93 0.93 0.95 0.88 0.88 0.95 0.94 0.94 0.95 0.94 0.94
Lanes:       1.00 1.78 0.22 1.00 2.42 0.58 1.00 1.85 0.15 1.00 1.87 0.13
Final Sat.:  1805 3164  388 1805 4057  979 1805 3308  263 1805 3336  238
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.23 0.23 0.02 0.18 0.18 0.08 0.16 0.16 0.04 0.17 0.17
Crit Moves:  ****             ****             ****             ****
Green/Cycle: 0.10 0.41 0.41 0.04 0.35 0.35 0.15 0.39 0.39 0.10 0.33 0.33
Volume/Cap:  0.52 0.56 0.56 0.43 0.52 0.52 0.52 0.41 0.41 0.41 0.52 0.52
Delay/Veh:   62.1 32.0 32.0 69.1 36.3 36.3 60.8 28.4 28.4 67.2 36.4 36.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  62.1 32.0 32.0 69.1 36.3 36.3 60.8 28.4 28.4 67.2 36.4 36.4
DesignQueue:    7   35    4    2   39    9   10   26    2    5   31    2
**************************************************************************
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--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                          Existing Conditions
                          PM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
**************************************************************************
Intersection #70 Ashby Avenue / Shattuck Avenue
**************************************************************************
Cycle (sec):         80          Critical Vol./Cap. (X):      0.746
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):   30.1
Optimal Cycle:       62          Level Of Service:               C
**************************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:  21   21   21    6   21   21   20   20   20   20   20   20
Lanes:      0 1  0  1 0   0 1  0  1 0   0 1  0  1 0   0 1  0  1 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      52  556   30  200  585   56   33  536   40   32  541  176
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   52  556   30  200  585   56   33  536   40   32  541  176
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
PHF Volume:    54  579   31  208  609   58   34  558   42   33  564  183
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   54  579   31  208  609   58   34  558   42   33  564  183
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    54  579   31  208  609   58   34  558   42   33  564  183
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.68 0.68 0.68 0.58 0.58 0.58 0.90 0.90 0.90 0.88 0.88 0.88
Lanes:       0.16 1.75 0.09 0.48 1.39 0.13 0.11 1.76 0.13 0.09 1.44 0.47
Final Sat.:   211 2256  122  521 1524  146  185 3004  224  142 2403  782
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.26 0.26 0.26 0.40 0.40 0.40 0.19 0.19 0.19 0.23 0.23 0.23
Crit Moves:                  ****                              ****
Green/Cycle: 0.33 0.33 0.33 0.41 0.41 0.41 0.44 0.44 0.44 0.44 0.44 0.44
Volume/Cap:  0.79 0.79 0.79 0.98 0.98 0.98 0.42 0.42 0.42 0.53 0.53 0.53
Delay/Veh:   32.0 32.0 32.0 50.1 50.1 50.1 16.1 16.1 16.1 17.5 17.5 17.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  32.0 32.0 32.0 50.1 50.1 50.1 16.1 16.1 16.1 17.5 17.5 17.5
DesignQueue:    2   18    1    6   17    2    1   14    1    1   15    5
**************************************************************************
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                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
******************************************************************************
Intersection #71 Ashby Avenue / Telegraph Avenue
******************************************************************************
Cycle (sec):          80          Critical Vol./Cap. (X):          0.925
Loss Time (sec):      12 (Y+R =  6 sec) Average Delay (sec/veh):    25.6
Optimal Cycle:       104          Level Of Service:                   C
******************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected       Prot+Permit       Protected        Protected
Rights:         Include          Include          Include          Include
Min. Green:  21   21   21     6   21   21    25   25   25    25   25   25
Lanes:     1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      210  675     75   176  902     63    68  531    184   148  642     99
Growth Adj:  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
Initial Bse:   210  675     75   176  902     63    68  531    184   148  642     99
User Adj:    1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
PHF Adj:     0.94 0.94   0.94  0.94 0.94   0.94  0.94 0.94   0.94  0.94 0.94   0.94
PHF Volume:    223  718     80   187  960     67    72  565    196   157  683    105
Reduct Vol:      0    0      0     0    0      0     0    0      0     0    0      0
Reduced Vol:   223  718     80   187  960     67    72  565    196   157  683    105
PCE Adj:     1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
MLF Adj:     1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
Final Vol.:    223  718     80   187  960     67    72  565    196   157  683    105
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900   1900  1900 1900   1900  1900 1900   1900  1900 1900   1900
Adjustment:  0.95 0.94   0.94  0.57 0.94   0.94  0.95 0.91   0.91  0.95 0.93   0.93
Lanes:       1.00 1.80   0.20  1.00 1.87   0.13  1.00 1.49   0.51  1.00 1.73   0.27
Final Sat.:   1805 3200    356  1089 3341    233  1805 2576    893  1805 3065    473
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.12 0.22   0.22  0.17 0.29   0.29  0.04 0.22   0.22  0.09 0.22   0.22
Crit Moves:  ****                 ****              ****              ****
Green/Cycle: 0.35 0.35   0.35  0.94 0.46   0.46  0.35 0.35   0.35  0.35 0.35   0.35
Volume/Cap:  0.35 0.64   0.64  0.18 0.63   0.63  0.11 0.63   0.63  0.25 0.64   0.64
Delay/Veh:   25.2 29.3   29.3   2.7 19.7   19.7  23.3 30.6   30.6  25.0 30.8   30.8
User DelAdj: 1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
AdjDel/Veh:  25.2 29.3   29.3   2.7 19.7   19.7  23.3 30.6   30.6  25.0 30.8   30.8
DesignQueue:    9   28      3     6   32      2     3   22      8     6   27      4
******************************************************************************
```

```
                            UC Berkeley LRDP EIR
                            Existing Conditions
                              PM Peak Hour
------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
******************************************************************************
Intersection #72 Ashby Avenue / College Avenue
******************************************************************************
Cycle (sec):          80          Critical Vol./Cap. (X):          0.960
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):    28.9
Optimal Cycle:       126          Level Of Service:                   C
******************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    30   30   30    30   30   30
Lanes:     0  0  1  1  0   0  0  1  1  0   0  0  1  1  0   0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       75  293     68   159  279     58    15  683     87    10  466    151
Growth Adj:  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
Initial Bse:    75  293     68   159  279     58    15  683     87    10  466    151
User Adj:    1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
PHF Adj:     0.96 0.96   0.96  0.96 0.96   0.96  0.96 0.96   0.96  0.96 0.96   0.96
PHF Volume:     78  305     71   166  291     60    16  711     91    10  485    157
Reduct Vol:      0    0      0     0    0      0     0    0      0     0    0      0
Reduced Vol:    78  305     71   166  291     60    16  711     91    10  485    157
PCE Adj:     1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
MLF Adj:     1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
Final Vol.:     78  305     71   166  291     60    16  711     91    10  485    157
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900   1900  1900 1900   1900  1900 1900   1900  1900 1900   1900
Adjustment:  0.82 0.82   0.82  0.65 0.65   0.65  0.97 0.97   0.97  0.95 0.95   0.95
Lanes:       0.17 0.67   0.16  0.32 0.56   0.12  0.02 0.87   0.11  0.02 0.74   0.24
Final Sat.:    269 1050    244   394  691    144    35 1606    205    29 1348    437
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.29 0.29   0.29  0.42 0.42   0.42  0.44 0.44   0.44  0.36 0.36   0.36
Crit Moves:                     ****              ****
Green/Cycle: 0.38 0.38   0.38  0.45 0.45   0.45  0.53 0.53   0.53  0.53 0.53   0.53
Volume/Cap:  0.78 0.78   0.78  0.93 0.93   0.93  0.84 0.84   0.84  0.69 0.69   0.69
Delay/Veh:   31.7 31.7   31.7  46.0 46.0   46.0  25.1 25.1   25.1  18.1 18.1   18.1
User DelAdj: 1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00  1.00 1.00   1.00
AdjDel/Veh:  31.7 31.7   31.7  46.0 46.0   46.0  25.1 25.1   25.1  18.1 18.1   18.1
DesignQueue:    2    9      2     4    8      2     0   17      2     0   11      4
******************************************************************************
```

```
EXISTING PM              Thu Jun 19, 2003 17:23:25           Page 77-1
------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                           Existing Conditions
                             PM Peak Hour
------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #73 Ashby Avenue / Claremont Avenue
********************************************************************************
Cycle (sec):          70         Critical Vol./Cap. (X):          0.658
Loss Time (sec):      12 (Y+R = 12 sec) Average Delay (sec/veh):   22.2
Optimal Cycle:        72         Level Of Service:                   C
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase       Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   16   16   16    16   16   16    28   28   28    28   28   28
Lanes:         0  1  0  1  0   1  1  0  1  0   0  1  0  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      45  373  189   432  285   49    47  592    5    66  504  232
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   45  373  189   432  285   49    47  592    5    66  504  232
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.97 0.97 0.97  0.97 0.97 0.97  0.97 0.97 0.97  0.97 0.97 0.97
PHF Volume:    46  385  195   445  294   51    48  610    5    68  520  239
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   46  385  195   445  294   51    48  610    5    68  520  239
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    46  385  195   445  294   51    48  610    5    68  520  239
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
Lanes:       0.15 1.23 0.62  1.69 1.12 0.19  0.15 1.84 0.01  0.16 1.26 0.58
Final Sat.:   268 2218 1124  3054 2015  346   263 3319   28   297 2269 1044
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.17 0.17 0.17  0.15 0.15 0.15  0.18 0.18 0.18  0.23 0.23 0.23
Crit Moves:  ****              ****                            ****
Green/Cycle: 0.22 0.22 0.22  0.22 0.22 0.22  0.39 0.39 0.39  0.39 0.39 0.39
Volume/Cap:  0.78 0.78 0.78  0.66 0.66 0.66  0.47 0.47 0.47  0.59 0.59 0.59
Delay/Veh:   31.3 31.3 31.3  26.8 26.8 26.8  15.2 15.2 15.2  16.5 16.5 16.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  31.3 31.3 31.3  26.8 26.8 26.8  15.2 15.2 15.2  16.5 16.5 16.5
DesignQueue:    1   12    6    14    9    2     1   15    0     2   13    6
********************************************************************************




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EXISTING PM              Thu Jun 19, 2003 17:23:25           Page 78-1
------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                           Existing Conditions
                             PM Peak Hour
------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #74 Tunnel Road / SR 13
********************************************************************************
Cycle (sec):          65         Critical Vol./Cap. (X):          0.785
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):   13.6
Optimal Cycle:        55         Level Of Service:                   B
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected       Split Phase      Split Phase
Rights:          Include          Include          Include            Ovl
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0  0  2  0  1   2  0  1  0  0   0  0  0  0  0   1  0  0  0  2
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       0 1130  256   534 1095    0     0    0    0   128    0  155
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0 1130  256   534 1095    0     0    0    0   128    0  155
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:     0 1202  272   568 1165    0     0    0    0   136    0  165
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0 1202  272   568 1165    0     0    0    0   136    0  165
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:     0 1202  272   568 1165    0     0    0    0   136    0  165
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 0.95 0.85  0.92 1.00 1.00  1.00 1.00 1.00  0.95 1.00 0.75
Lanes:       0.00 2.00 1.00  2.00 1.00 0.00  0.00 0.00 0.00  1.00 0.00 2.00
Final Sat.:     0 3610 1615  3502 1900    0     0    0    0  1805    0 2842
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.33 0.17  0.16 0.61 0.00  0.00 0.00 0.00  0.08 0.00 0.06
Crit Moves:  ****              ****                            ****
Green/Cycle: 0.00 0.43 0.43  0.23 1.00 0.00  0.00 0.00 0.00  0.23 0.23 0.23
Volume/Cap:  0.00 0.78 0.39  0.71 0.61 0.00  0.00 0.00 0.00  0.33 0.00 0.25
Delay/Veh:    0.0 18.5 13.1  26.1  0.6  0.0   0.0  0.0  0.0  21.4  0.0 20.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 18.5 13.1  26.1  0.6  0.0   0.0  0.0  0.0  21.4  0.0 20.7
DesignQueue:    0   27    6    16    0    0     0    0    0     4    0    5
********************************************************************************




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                              UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                  AM Peak Hour

                               Scenario Report
Scenario: CUMULATIVE + LAB AM

Command: CUMULATIVE AM
Volume: CUMULATIVE AM
Geometry: CUMULATIVE AM
Impact Fee: Default Impact Fee
Trip Generation: AM LAB 2020
Trip Distribution: Cumulative With Lab AM
Paths: Default Paths
Routes: Default Routes
Configuration: CUMULATIVE LAB AM

                              UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                  AM Peak Hour

                            Trip Generation Report

                          Forecast for APPROVED AM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
3		-1.00	Negative Parki	0.00	0.00	0	0	0	0.0
3		1.00	Parking	0.00	0.00	0	0	0	0.0
13	Lower Hearst	1.00	Approved Parki	44.00	4.00	44	4	48	9.9
	Zone 13 Subtotal					44	4	48	9.9
14	Underhill	1.00	Approved Parki	276.00	28.00	276	28	304	62.9
	Zone 14 Subtotal					276	28	304	62.9

TOTAL 320   32   352 72.9

```
--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                         Trip Generation Report

                        Forecast for AM LAB 2020

Zone                              Rate   Rate   Trips Trips Total % Of
 #   Subzone      Amount  Units    In     Out    In    Out   Trips Total

---- ------------ ------- -------------- ------ ------ ----- ----- ----- -----

 101 Blackberry I   1.00 LBNL Blackberr 64.00   0.00     64     0    64  13.3
          Zone 101 Subtotal .........................     64     0    64  13.3

 102 Blackberry O   1.00 LBNL Blackberr  0.00  11.00      0    11    11   2.3
          Zone 102 Subtotal .........................      0    11    11   2.3

 103 Strawberry I   1.00 LBNL Strawberr 19.00   0.00     19     0    19   3.9
          Zone 103 Subtotal .........................     19     0    19   3.9

 104 Strawberry O   1.00 LBNL Strawberr  0.00   3.00      0     3     3   0.6
          Zone 104 Subtotal .........................      0     3     3   0.6

 105 Grizzly IN     1.00 LBNL Grizzly I 32.00   0.00     32     0    32   6.6
          Zone 105 Subtotal .........................     32     0    32   6.6

 106 Grizzly OUT    1.00 LBNL Grizzly O  0.00   2.00      0     2     2   0.4
          Zone 106 Subtotal .........................      0     2     2   0.4


--------------------------------------------------------------------------------
TOTAL ............................................. 115    16   131  27.1
```

```
--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                        Trip Distribution Report

                 Percent Of Trips CUMULATIVE AM WITH LAB
```

Zone	To Gates										
	1	2	3	4	5	6	7	8	9	10	11
1	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
2	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
3	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
4	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
5	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
6	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
7	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
8	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
9	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
10	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
11	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
12	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
13	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
14	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
101	5.6	0.0	5.6	0.0	10.3	11.6	19.5	22.5	11.9	0.0	3.0
102	6.0	0.0	14.0	0.0	8.0	10.0	18.0	20.0	10.0	0.0	2.0
103	5.7	0.0	8.9	0.0	10.0	11.1	17.8	23.3	12.2	0.0	2.2
104	9.1	0.0	27.2	0.0	9.1	9.1	9.1	18.2	18.2	0.0	0.0
105	5.3	0.0	14.7	0.0	9.3	10.0	16.7	20.7	12.0	0.0	2.0
106	11.1	0.0	11.1	0.0	11.1	11.1	22.2	22.2	11.2	0.0	0.0

Zone	To Gates					
	12	13	14	15	16	17
1	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0
101	3.0	1.3	1.3	2.3	1.0	1.1
102	2.0	2.0	2.0	2.0	2.0	2.0
103	2.2	1.1	1.1	2.2	1.1	1.1
104	0.0	0.0	0.0	0.0	0.0	0.0
105	2.0	1.3	1.3	2.0	1.3	1.4

                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             AM Peak Hour

                           To Gates
           12   13   14   15   16   17
Zone   ----- ----- ----- ----- ----- -----

 106   0.0   0.0   0.0   0.0   0.0   0.0

                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             AM Peak Hour

                        Turning Movement Report
                       APPROVED AM + AM LAB 2020

| Volume | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Total |
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Marin Avenue / San Pablo Avenue													
Base	102	363	59	106	891	15	38	672	235	147	768	90	3486
Added	0	3	0	1	43	0	0	3	0	0	0	2	52
Future	120	120	64	20	131	14	14	67	30	34	267	10	891
Total	222	486	123	127	1065	29	52	742	265	181	1035	102	4429
#2 Marin Avenue / The Alameda													
Base	173	189	7	38	279	23	33	494	291	20	420	48	2015
Added	1	1	0	0	4	0	0	4	0	0	0	0	10
Future	110	0	10	10	190	20	0	70	50	10	170	10	650
Total	284	190	17	48	473	43	33	568	341	30	590	58	2675
#3 Gilman Street / Sixth Street													
Base	122	24	56	11	45	28	21	416	114	47	430	20	1334
Added	0	0	0	0	0	0	0	0	3	0	0	0	3
Future	70	0	28	0	30	0	0	37	10	48	67	0	290
Total	192	24	84	11	75	28	21	453	127	95	497	20	1627
#4 Gilman Street / San Pablo Avenue													
Base	113	401	25	74	1055	125	75	189	96	62	318	42	2575
Added	0	3	0	0	43	0	0	0	0	0	0	0	46
Future	30	305	60	60	70	20	35	20	10	10	40	32	692
Total	143	709	85	134	1168	145	110	209	106	72	358	74	3313
#5 Rose Street / Shattuck Avenue													
Base	55	191	11	174	961	28	28	174	40	32	185	40	1919
Added	0	0	0	0	1	0	0	0	0	0	0	0	1
Future	40	140	20	10	170	10	10	10	20	20	10	10	470
Total	95	331	31	184	1132	38	38	184	60	52	195	50	2390
#6 Cedar Street / Martin Luther King Way													
Base	33	292	44	35	617	26	14	276	62	58	248	30	1735
Added	0	2	0	0	4	0	0	4	0	0	0	0	10
Future	10	40	20	20	220	10	10	50	30	30	90	20	550
Total	43	334	64	55	841	36	24	330	92	88	338	50	2295
#7 Cedar Street / Shattuck Avenue													
Base	48	256	41	127	933	52	44	257	86	94	268	56	2262
Added	0	0	0	0	1	0	0	4	0	0	0	0	5
Future	20	140	20	10	150	10	10	30	10	40	70	20	530
Total	68	396	61	137	1084	62	54	291	96	134	338	76	2797

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Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#8 Cedar Street / Oxford Street													
Base	45	186	56	34	531	19	18	314	75	144	343	19	1784
Added	0	0	0	0	0	0	0	3	1	0	0	0	4
Future	30	20	10	10	10	0	10	40	30	10	120	0	290
Total	75	206	66	44	541	19	28	357	106	154	463	19	2078
#9 Cedar Street / Euclid Avenue													
Base	30	85	29	23	295	141	50	143	117	28	209	8	1158
Added	0	0	0	0	3	3	0	0	0	0	0	0	6
Future	20	0	0	0	10	40	10	30	20	20	80	0	230
Total	50	85	29	23	308	184	60	173	137	48	289	8	1394
#10 Grizzly Peak Blvd / Centennial Drive													
Base	31	13	13	25	52	4	6	165	143	169	90	16	727
Added	0	0	2	0	0	0	0	0	5	18	0	0	25
Future	30	0	10	0	0	0	0	20	10	20	10	0	100
Total	61	13	25	25	52	4	6	185	158	207	100	16	852
#11 Hearst Avenue / Shattuck Avenue													
Base	19	291	43	199	810	57	31	278	24	11	225	51	2039
Added	0	0	1	1	0	0	0	13	0	6	2	0	23
Future	10	90	20	50	160	20	30	30	30	10	20	70	540
Total	29	381	64	250	970	77	61	321	54	27	247	121	2602
#12 Hearst Avenue / Oxford Avenue													
Base	46	328	374	48	841	38	10	399	114	207	281	27	2713
Added	0	0	55	1	0	0	0	15	0	5	8	0	84
Future	20	50	40	10	30	20	0	80	30	30	70	10	390
Total	66	378	469	59	871	58	10	494	144	242	359	37	3187
#13 Hearst Avenue / Spruce Street													
Base	0	0	0	9	0	63	11	843	0	0	430	7	1363
Added	0	0	0	4	0	0	0	71	0	0	13	1	89
Future	0	0	0	0	0	20	0	130	0	0	110	0	260
Total	0	0	0	13	0	83	11	1044	0	0	553	8	1712
#14 Hearst Avenue / Arch Street / Le Conte Avenue													
Base	0	0	0	2	0	130	276	566	0	0	307	4	1285
Added	0	0	0	0	0	0	24	51	0	0	14	0	89
Future	0	0	0	0	0	40	30	100	0	0	90	0	260
Total	0	0	0	2	0	170	330	717	0	0	411	4	1634
#15 Hearst Avenue / Scenic Avenue													
Base	0	0	0	0	0	37	0	531	0	0	290	55	913
Added	0	0	0	0	0	1	0	0	0	0	13	2	16
Future	0	0	0	0	0	20	0	100	0	0	90	10	220
Total	0	0	0	0	0	58	0	631	0	0	393	67	1149

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Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#16 Hearst Avenue / Euclid Avenue													
Base	2	0	2	47	1	151	75	448	1	1	276	10	1014
Added	0	0	0	0	0	3	0	51	0	0	20	0	74
Future	0	0	0	10	0	50	10	90	0	0	70	0	230
Total	2	0	2	57	1	204	85	589	1	1	366	10	1318
#17 Hearst Avenue / Le Roy Avenue													
Base	0	0	0	19	0	60	59	436	0	0	230	3	807
Added	0	0	0	0	0	0	0	51	0	0	20	0	71
Future	0	0	0	0	0	10	10	90	0	0	70	0	180
Total	0	0	0	19	0	70	69	577	0	0	320	3	1058
#18 Hearst Avenue / Gayley Road / LaLoma Avenue													
Base	274	212	95	12	274	21	28	161	304	21	33	5	1440
Added	11	4	32	0	37	0	0	32	19	2	9	0	146
Future	70	10	20	0	120	0	0	80	0	20	20	0	340
Total	355	226	147	12	431	21	28	273	323	43	62	5	1926
#19 Berkeley Way / Oxford Street													
Base	39	717	40	30	1132	11	20	18	72	10	2	12	2103
Added	0	55	0	0	5	0	0	0	0	0	0	0	60
Future	10	110	10	0	100	0	0	0	20	0	0	0	250
Total	49	882	50	30	1237	11	20	18	92	10	2	12	2413
#20 University Avenue / Sixth Street													
Base	211	111	19	73	290	325	89	932	333	40	931	21	3375
Added	0	0	6	0	0	1	6	47	0	0	6	0	66
Future	150	60	10	10	10	80	10	60	40	10	150	10	600
Total	361	171	35	83	300	406	105	1039	373	50	1087	31	4041
#21 University Avenue / San Pablo Avenue													
Base	100	457	75	190	837	83	56	957	49	63	644	93	3604
Added	0	0	1	11	28	0	0	53	0	0	6	3	102
Future	50	200	40	60	30	20	10	60	10	10	120	100	710
Total	150	657	116	261	895	103	66	1070	59	73	770	196	4416
#22 University Avenue / Martin Luther King Way													
Base	178	568	80	57	833	87	81	703	185	41	477	47	3337
Added	2	1	1	0	0	0	0	69	0	0	7	0	80
Future	70	0	0	0	230	30	10	130	20	20	160	80	750
Total	250	569	81	57	1063	117	91	902	205	61	644	127	4167
#23 University Avenue / Milvia Street													
Base	100	98	21	6	203	63	37	656	137	18	406	15	1760
Added	0	0	0	0	0	0	0	69	0	0	7	0	76
Future	10	10	10	10	10	10	20	80	20	20	240	20	460
Total	110	108	31	16	213	73	57	805	157	38	653	35	2296

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Volume   Northbound      Southbound      Eastbound       Westbound    Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#24 University Avenue / SB Shattuck Avenue
Base     0    0    0   49  767  105  115  401  162   26  356  314   2295
Added    0    0    0    0    6    0    1   69    0    0    7    0     83
Future   0    0    0   10  120   60   20   50   10   10  200   90    570
Total    0    0    0   59  893  165  136  520  172   36  563  404   2948

#25 University Avenue / NB Shattuck Avenue
Base   458    0  168    0    0    0    0  444    0    0  235    0   1305
Added    3    0   18    0    0    0    0   69    0    0    4    0     94
Future 220    0   20    0    0    0    0    0    0    0   80    0    320
Total  681    0  206    0    0    0    0  513    0    0  319    0   1719

#26 University Avenue / Oxford Street
Base   147  487    4   41 1101   77  300   38  217    6   12   23   2453
Added    0    0    0    0    1    4   55    0   32    0    0    0     92
Future  50   90    0   10   80   30   20   10   20    0   10   10    330
Total  197  577    4   51 1182  111  375   48  269    6   22   33   2875

#27 Univeristy Drive (East Gate)  / Gayley Road
Base    69  476    0    0  543   75   53    0   73    0    0    0   1289
Added    0   46    0    0   57    0    0    0    0    0    0    0    103
Future  20   70    0    0  110   10   10    0   20    0    0    0    240
Total   89  592    0    0  710   85   63    0   93    0    0    0   1632

#28 Addison Street / Oxford Street
Base    54  647    0    0 1165   61    4    0   31    0    0    0   1962
Added    0    0    0    0   32    0    0    0    0    0    0    0     32
Future  20  140    0    0   90   10    0    0   10    0    0    0    270
Total   74  787    0    0 1287   71    4    0   41    0    0    0   2264

#29 Center Street / SB Shattuck Avenue
Base     0    0    0   15  779   71    0   69   51   17  102    0   1104
Added    0    0    0    0    6    0    0    0    0    0    0    0      6
Future   0    0    0    0  130   20    0   50   30   30   40    0    300
Total    0    0    0   15  915   91    0  119   81   47  142    0   1410

#30 Center Street / NB Shattuck Avenue
Base    42  616   51    0    0    0   26   56    0    0   77   26    894
Added    0   21    0    0    0    0    0    0    0    0    0    0     21
Future  30  200   60    0    0    0   10   40    0    0   40   30    410
Total   72  837  111    0    0    0   36   96    0    0  117   56   1325

#31 Center Street / Oxford Street
Base    50  663   42   11 1145   39   26   10   43   19    6    8   2062
Added    0    0    0    0   32    0    0    0    0    0    0    0     32
Future  30   90   10    0   70   30   60    0   30    0    0    0    320
Total   80  753   52   11 1247   69   86   10   73   19    6    8   2414
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                          AM Peak Hour
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Volume   Northbound      Southbound      Eastbound       Westbound    Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#32 Stadium Rim Road / Gayley Road
Base     0  386   19  128  471    0   12    5   14   18    1  118   1172
Added    0   43   16   19   38    0    0    0    0    8    0    3    127
Future   0   60   10   20  100    0    0    0    0   10    0   20    220
Total    0  489   45  167  609    0   12    5   14   36    1  141   1519

#33 Allston Way / Oxford Street
Base    17  798    0   59 1111   34   16    0   33    0    0    0   2068
Added    0    0    0    0   32    0    0    0    0    0    0    0     32
Future  10  130    0   10   80   10    0    0   30    0    0    0    270
Total   27  928    0   69 1223   44   16    0   63    0    0    0   2370

#34 Kittridge Street / Oxford Street / Fulton Street
Base    13  801    0    0 1122   18    6    0   23    0    0    0   1983
Added    0    0    0    0   32    0    0    0    0    0    0    0     32
Future   0  120    0    0   70   30   10    0   10    0    0    0    240
Total   13  921    0    0 1224   48   16    0   33    0    0    0   2255

#35 Stadium Rim Road / Centennial Drive
Base     0   70  160   94   22    0    0    0    0  114    0   71    531
Added    0    0    0   35    0    0    0    0    0    0    0   11     46
Future   0   20   20   20   10    0    0    0    0   20    0   10    100
Total    0   90  180  149   32    0    0    0    0  134    0   92    677

#36 Bancroft Way / Shattuck Avenue
Base    29  912    0    0  788   12    1    0   62  116   51   71   2042
Added    0   21    0    0    6    0    0    0    0    1    0    0     28
Future  10  280    0    0  190   10    0    0    0   30   10   10    540
Total   39 1213    0    0  984   22    1    0   62  147   61   81   2610

#37 Bancroft Way / Fulton Street
Base    13  146    0    0 1071   79    0    0    0   84  173  650   2216
Added    0    0    0    0   32    1    0    0    0    0    0    0     33
Future  10   10    0    0   60   10    0    0    0   10   20  110    230
Total   23  156    0    0 1163   90    0    0    0   94  193  760   2479

#38 Bancroft Way / Ellsworth Street
Base   241   60    0    0    0   11    0    0    0    0  674   39   1025
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Future  10    0    0    0    0    0    0    0    0    0  130    0    140
Total  251   60    0    0    0   11    0    0    0    0  804   39   1165

#39 Bancroft Way / Dana Street
Base     0    0    0    0    0    0    0    0    0  145  721    0    866
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Future   0    0    0    0    0    0    0    0    0   50  130    0    180
Total    0    0    0    0    0    0    0    0    0  195  851    0   1046
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Volume   Northbound      Southbound      Eastbound       Westbound     Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#40 Bancroft Way / Telegraph Avenue
Base    427   0    0    0    0    0    0    0    0    0  460    0    887
Added     0   0    0    0    0    0    0    0    0    0    0    0      0
Future  100   0    0    0    0    0    0    0    0    0   70    0    170
Total   527   0    0    0    0    0    0    0    0    0  530    0   1057

#41 Bancroft Way / Bowditch Street
Base    191   0    0    0    0    0    0    0    0   99  494    0    784
Added     0   0    0    0    0    0    0    0    0    0    0    0      0
Future   10   0    0    0    0    0    0    0    0   20   60    0     90
Total   201   0    0    0    0    0    0    0    0  119  554    0    874

#42 Bancroft Way / College Avenue
Base    343   0    0    0    0    0    0    0    0   34  203    0    580
Added     0   0    0    0    0    0    0    0    0    1    0    0      1
Future   10   0    0    0    0    0    0    0    0   20   60    0     90
Total   353   0    0    0    0    0    0    0    0   55  263    0    671

#43 Bancroft Way / Piedmont Avenue
Base    131 553    0    0  344  123    0    0    0    0    0    0   1151
Added     0  59    0    0   44    1    0    0    0    0    0    0    104
Future   10  60    0    0   40   60    0    0    0    0    0    0    170
Total   141 672    0    0  428  184    0    0    0    0    0    0   1425

#44 Durant Avenue / Shattuck Avenue
Base     55 943  136   67  886    8    9   70   35    0    0    0   2209
Added     0  21    2    0    7    0    0    0    0    0    0    0     30
Future   10  90   70   40  180   10  200   40    0    0    0    0    640
Total    65 1054 208  107 1073   18  209  110   35    0    0    0   2879

#45 Durant Avenue / Fulton Street
Base      0   0    0  459  656    0  123  262   27    0    0    0   1527
Added     0   0    0    0    0   32    0    0    2    0    0    0     34
Future    0   0    0   30   40    0   20   90   30    0    0    0    210
Total     0   0    0  489  728    0  143  354   57    0    0    0   1771

#46 Durant Avenue / Telegraph Avenue
Base      0 362   86    0    0    0   73  387    0    0    0    0    908
Added     0   0    0    0    0    0    0    2    0    0    0    0      2
Future    0 110   40    0    0    0    0  130    0    0    0    0    280
Total     0 472  126    0    0    0   73  519    0    0    0    0   1190

#47 Durant Avenue / College Avenue
Base      0 213   66   13   23    0   64  228   87    0    0    0    694
Added     0   0   27    0    1    0    0    5    0    0    0    0     33
Future    0  10   90    0   20    0   20   90   40    0    0    0    270
Total     0 223  183   13   44    0   84  323  127    0    0    0    997
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-----------------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound     Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#48 Durant Avenue / Piedmont Avenue
Base      0 489    0    0  345    0  158    0   86    0    0    0   1078
Added     0  27    0    0   44    0   32    0    0    0    0    0    103
Future    0  50    0    0   40    0   30    0   60    0    0    0    180
Total     0 566    0    0  429    0  220    0  146    0    0    0   1361

#49 Channing Way / Shattuck Avenue
Base     42 1070  96   19  868   19   12   59   42   62   28   39   2356
Added     0  20   44    0    7    0    0    0    0    3    0    3     77
Future   20 130   20   40   90   70   30   40   20   30   10   10    510
Total    62 1220 160   59  965   89   42   99   62   95   38   52   2943

#50 Channing Way / Fulton Street
Base      0   0    0   86  543   51    0  132   20    7   72    0    911
Added     0   0    0   32    0    0    0   44    0    0    6    0     82
Future    0   0    0   30    0   30    0   90    0   10   40    0    170
Total     0   0    0  118  573   51    0  266   20   17  118    0   1163

#51 Channing Way / Telegraph Avenue
Base     56 423   79    0    0    0   16  179    0    0   98    9    860
Added     0   0   68    0    0    0    0   75    0    0    6    0    149
Future   10  40   30    0    0    0   60   30    0    0   30   50    250
Total    66 463  177    0    0    0   76  284    0    0  134   59   1259

#52 Channing Way / College Avenue
Base     26 256   22    6   92    2   21   76   31   88  150   43    813
Added    25  27    0    0    1    0    0    9    2    0   77    0    141
Future   20  50   20    0   60   10   10   40   30   70   40   30    380
Total    71 333   42    6  153   12   31  125   63  158  267   73   1334

#53 Haste Street / Shattuck Avenue
Base     66 1117   0    0  903   46    0    0    0  185  276   75   2668
Added     0  64    0    0    8    2    0    0    0    4    8    0     86
Future   10 130    0    0  110   20    0    0    0   30  110   20    430
Total    76 1311   0    0 1021   68    0    0    0  219  394   95   3184

#54 Haste Street / Fulton Street
Base      0   0    0    0  433  145    0    0    0   23  380    0    981
Added     0   0    0    0    0    0    0    0    0    0   11    0     11
Future    0   0    0    0   50   20    0    0    0    0  140    0    210
Total     0   0    0    0  483  165    0    0    0   23  531    0   1202

#55 Haste Street / Telegraph Avenue
Base    216 520    0    0    0    0    0    0    0    0  334   34   1104
Added     0  68    0    0    0    0    0    0    0    0   11    0     79
Future   20  50    0    0    0    0    0    0    0    0   90   30    190
Total   236 638    0    0    0    0    0    0    0    0  435   64   1373
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                           AM Peak Hour
-----------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound   Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#56 Haste Street / College Avenue
Base   167  267    0    0  115   69    0    0    0   48  223   21   910
Added   19   53    0    0    3    0    0    0    0    0   12    0    87
Future  30   40    0    0   90   60    0    0    0   30   30   40   320
Total  216  360    0    0  208  129    0    0    0   78  265   61  1317

#57 Dwight Way / Martin Luther King Way
Base    62  690   66   88  868  163   68  419   83    0    0    0  2507
Added    0    1    0    0    1    6    0   78    0    0    0    0    86
Future  20   30   10   10  200   50   10   50   10    0    0    0   390
Total   82  721   76   98 1069  219   78  547   93    0    0    0  2983

#58 Dwight Way / Shattuck Avenue
Base     0 1094  113   95  989    0   66  420  151    0    0    0  2928
Added    0   62    0    1   10    0    2   76    0    0    0    0   151
Future   0  130   30   10  110    0   20   50   10    0    0    0   360
Total    0 1286  143  106 1109    0   88  546  161    0    0    0  3439

#59 Dwight Way / Fulton Street
Base     0    0   12  449    0    0    0  620    6    0    0    0  1087
Added    0    0    0    0    0    0    0   78    0    0    0    0    78
Future   0    0   10   30    0    0    0   70   30    0    0    0   140
Total    0    0   22  479    0    0    0  768   36    0    0    0  1305

#60 Dwight Way / Telegraph Avenue
Base     0  697   78    0    0    0   66  479  565    0    0    0  1885
Added    0    0    0    0    0    0   68   10    0    0    0    0    78
Future   0   60   10    0    0    0   10   60   40    0    0    0   180
Total    0  757   88    0    0    0  144  549  605    0    0    0  2143

#61 Dwight Way / College Avenue
Base     0  365   51   10  150    0   68  352   85    0    0    0  1081
Added    0   64    0    0    3    0    7    2    0    0    0    0    76
Future   0   50   10   20   90    0   20   20   10    0    0    0   220
Total    0  479   61   30  243    0   95  374   95    0    0    0  1377

#62 Dwight Way / Piedmont Avenue / Warring Street
Base     0  583    0    8  324    0   91  143  238   42    0   48  1477
Added    0   69    0    0    7    0    1    0    1    0    0    0    78
Future   0   70   10   10   40    0   10   10   30   10    0   10   200
Total    0  722   10   18  371    0  102  153  269   52    0   58  1755

#63 Dwight Avenue / Prospect Street
Base     0    0    0   14    0  109  246   72    0    0   53   15   509
Added    0    0    0    0    0    0    0    0    0    0    0    0     0
Future   0    0    0    0    0   20   30    0    0    0   20    0    70
Total    0    0    0   14    0  129  276   72    0    0   73   15   579
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                      2020 No Project Conditions
                           AM Peak Hour
-----------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound   Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#64 Adeline Street / Ward Avenue / Shattuck Avenue
Base     0  784    3    0  736  546  723    0    4    0    0    0  2796
Added    0   28    0    0    5    5   34    0    0    0    0    0    72
Future   0   50    0    0   40   70  100    0    0    0    0    0   260
Total    0  862    3    0  781  621  857    0    4    0    0    0  3128

#65 Derby Street / Warring Street
Base     0    0    0  650    0   31   14   20    0    0   34  779  1528
Added    0    0    0    8    0    0    0    0    0    0    0   69    77
Future   0    0    0   90    0   10    0   10    0    0    0   90   200
Total    0    0    0  748    0   41   14   30    0    0   34  938  1805

#66 Derby Street / Claremont Blvd.
Base     5    0   64    0    0    0    0  665   12   52  813    0  1611
Added    0    0    0    0    0    0    0    8    0    0   69    0    77
Future   0    0    0    0    0    0    0  100    0    0   90    0   190
Total    5    0   64    0    0    0    0  773   12   52  972    0  1878

#67 Ashby Avenue / Seventh Street
Base    62  162   54   54  193  224  433  915  306  111  663   25  3202
Added    0    0    0    0    0    0    0   38    0    0    5    0    43
Future 100   70   20   60   20   30   50   60   40   50   60   30   590
Total  162  232   74  114  213  254  483 1013  346  161  728   55  3835

#68 Ashby Avenue / San Pablo Avenue
Base   173  521   53  137  741  128   84  584  134   51  613  135  3354
Added    0    9    9    0    0    2    0   38    0    2    3    0    63
Future  20  220   20   20  320   30   20  120   10   20   80   50   930
Total  193  750   82  157 1061  160  104  742  144   73  696  185  4347

#69 Ashby Avenue / Adeline Street
Base    74  567   61   11  438   96  189  564   49   83  549   14  2695
Added    0    6    0    0    1    4   28   18    0    0    0    0    57
Future  30   50   10   10   10   50   50  110   20   10  190    0   540
Total  104  623   71   21  449  150  267  692   69   93  739   14  3292

#70 Ashby Avenue / Shattuck Avenue
Base    77  590   26  124  450   35   33  557   31   40  550  182  2695
Added    0   27    0    2    3    0    0   18    0    0    0    0    50
Future  30   20   10   20   10   10   10  110   10   10  150   10   400
Total  107  637   36  146  463   45   43  685   41   50  700  192  3145

#71 Ashby Avenue / Telegraph Avenue
Base   150  985   80  148  623  103   86  549  120   89  573   83  3589
Added    0    0    0    0    0    0    0   20    0    0    0    0    20
Future  50   40   10   10   60   30   20   90   20   10   80   10   430
Total  200 1025   90  158  683  133  106  659  140   99  653   93  4039
```

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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               AM Peak Hour
```

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

```
#72 Ashby Avenue / College Avenue
Base    79   323    26   118   232    95    33   490    92     4   611   229   2332
Added    0    24     0     1     2     0    18     2     0     0     0    21     68
Future  20    20    10    20    20    60    20    80    10    10    20    30    320
Total   99   367    36   139   254   155    71   572   102    14   631   280   2720

#73 Ashby Avenue / Claremont Avenue
Base    35   288   153   321   272    59    43   504    13    90   637   429   2844
Added    0     0     0     8     0     0     0     3     0     0    21    69    101
Future  20    10    30    40    50    10    30    60    10    30    20    50    360
Total   55   298   183   369   322    69    73   567    23   120   678   548   3305

#74 Tunnel Road / SR 13
Base     0  1293   435   487   608     0     0     0     0   205     0   307   3335
Added    0    90     0     5     5     0     0     0     0     0     0     0    100
Future   0    80     0    60    70     0     0     0     0     0     0    20    230
Total    0  1463   435   552   683     0     0     0     0   205     0   327   3665

#1004
Base     0     0     0     0     0     0     0     0     0     0     0     0      0
Added    0     0     0     1     0     2    12    23     0     0     8     7     53
Total    0     0     0     1     0     2    12    23     0     0     8     7     53

#1005
Base     0     0     0     0     0     0     0     0     0     0     0     0      0
Added    0     0     0     1     0     1    22     2     0     0    14    10     50
Total    0     0     0     1     0     1    22     2     0     0    14    10     50

#1101 I-880 South/ I-80 West CHECK
Base     0     0     0     0     0     0     0     0     0     0     0     0      0
Added    0    49     0     0     5     0     0     0     0     0     0     0     54
Total    0    49     0     0     5     0     0     0     0     0     0     0     54

#1121 Highland Place/Heart Avenue/Cyclotron
Base     0     0     0     0     0     0     0     0     0     0     0     0      0
Added    0     0     0     0     0     0     0    64     0     0    11     0     75
Total    0     0     0     0     0     0     0    64     0     0    11     0     75

#1122 Stadium Rim Road/ Canyon Road
Base     0     0     0     0     0     0     0     0     0     0     0     0      0
Added    0     0     0     0     0     0     0     0     0     0     0     0      0
Total    0     0     0     0     0     0     0     0     0     0     0     0      0
```

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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               AM Peak Hour
```

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                          Impact Analysis Report
                            Level Of Service
```

Intersection		Base			Future			Change
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in

```
#  1 Marin Avenue / San Pablo Avenu   E  64.3 0.775   F  89.1 0.974   +24.825 D/V

#  2 Marin Avenue / The Alameda       B  12.8 0.467   B  15.3 0.655   + 2.494 D/V

#  3 Gilman Street / Sixth Street     B  10.6 0.511   B  16.4 0.686   + 5.786 D/V

#  4 Gilman Street / San Pablo Aven   C  34.0 0.736   D  42.7 0.859   + 8.754 D/V

#  5 Rose Street / Shattuck Avenue    A   6.9 0.480   A   9.8 0.571   + 2.952 D/V

#  6 Cedar Street / Martin Luther K   B  16.4 0.661   C  31.0 0.966   +14.646 D/V

#  7 Cedar Street / Shattuck Avenue   A   9.3 0.528   B  10.3 0.621   + 1.052 D/V

#  8 Cedar Street / Oxford Street     C  28.4 0.800   E  57.5 0.948   +29.157 D/V

#  9 Cedar Street / Euclid Avenue     B  12.4 0.512   B  13.7 0.595   + 1.282 D/V

# 10 Grizzly Peak Blvd / Centennial   A   9.8 0.386   B  10.9 0.453   + 0.066 V/C

# 11 Hearst Avenue / Shattuck Avenu   A   6.0 0.394   A   7.9 0.501   + 1.932 D/V

# 12 Hearst Avenue / Oxford Avenue    A   9.8 0.458   B  11.6 0.517   + 1.852 D/V

# 13 Hearst Avenue / Spruce Street    B   3.0 0.000   B   3.1 0.000   + 0.000 V/C

# 14 Hearst Avenue / Arch Street /    B   2.4 0.000   B   2.5 0.000   + 0.000 V/C

# 15 Hearst Avenue / Scenic Avenue    A   0.3 0.000   A   0.4 0.000   + 0.000 V/C

# 16 Hearst Avenue / Euclid Avenue    B  16.3 0.442   B  17.7 0.582   + 1.449 D/V

# 17 Hearst Avenue / Le Roy Avenue    B   3.2 0.000   B   3.3 0.000   + 0.000 V/C

# 18 Hearst Avenue / Gayley Road /    C  20.2 0.829   E  56.6 1.151   +36.470 D/V

# 19 Berkeley Way / Oxford Street     A   4.4 0.432   A   6.5 0.479   + 2.134 D/V

# 20 University Avenue / Sixth Stre   E  70.5 0.763   F  95.5 0.923   +25.016 D/V

# 21 University Avenue / San Pablo    F  86.7 0.732   F 128.0 0.837   +41.319 D/V

# 22 University Avenue / Martin Lut   B  19.4 0.742   C  30.1 0.964   +10.732 D/V

# 23 University Avenue / Milvia Str   B  10.4 0.460   B  12.5 0.566   + 2.072 D/V
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             AM Peak Hour
------------------------------------------------------------------------
Intersection                      Base          Future        Change
                              Del/    V/      Del/    V/        in
                          LOS Veh    C    LOS Veh    C
# 24 University Avenue / SB Shattuc  B  19.1 0.431   C  21.5 0.553  + 2.330 D/V

# 25 University Avenue / NB Shattuc  B  15.5 0.311   B  16.3 0.402  + 0.809 D/V

# 26 University Avenue / Oxford Str  C  22.4 0.728   C  29.0 0.856  + 6.618 D/V

# 27 Univeristy Drive (East Gate)    C   1.7 0.000   E   2.7 0.000  + 0.000 V/C

# 28 Addison Street / Oxford Street  B   0.3 0.000   B   0.4 0.000  + 0.000 V/C

# 29 Center Street / SB Shattuck Av  B  14.3 0.324   B  15.7 0.428  + 1.432 D/V

# 30 Center Street / NB Shattuck Av  A   4.5 0.248   A   5.4 0.378  + 0.875 D/V

# 31 Center Street / Oxford Street   A   7.9 0.479   B  11.5 0.609  + 3.521 D/V

# 32 Stadium Rim Road / Gayley Road  C  20.1 0.831   F  66.0 1.158  + 0.327 V/C

# 33 Allston Way / Oxford Street     D   4.4 0.000   D   4.8 0.000  + 0.000 V/C

# 34 Kittridge Street / Oxford Stre  C   2.3 0.000   C   2.5 0.000  + 0.000 V/C

# 35 Stadium Rim Road / Centennial   A   8.6 0.268   A   9.5 0.333  + 0.066 V/C

# 36 Bancroft Way / Shattuck Avenue  A   8.4 0.425   A  10.0 0.562  + 1.636 D/V

# 37 Bancroft Way / Fulton Street    A   6.1 0.351   A   9.3 0.385  + 3.293 D/V

# 38 Bancroft Way / Ellsworth Stree  B   2.9 0.000   C   3.0 0.000  + 0.000 V/C

# 39 Bancroft Way / Dana Street      A   0.0 0.000   A   0.0 0.000  + 0.000 V/C

# 40 Bancroft Way / Telegraph Avenu  B  20.0 0.240   C  21.5 0.288  + 1.496 D/V

# 41 Bancroft Way / Bowditch Street  B  11.2 0.431   B  12.1 0.493  + 0.062 V/C

# 42 Bancroft Way / College Avenue   B  10.5 0.455   B  11.1 0.488  + 0.033 V/C

# 43 Bancroft Way / Piedmont Avenue  C  20.3 0.836   E  42.8 1.026  + 0.189 V/C

# 44 Durant Avenue / Shattuck Avenu  B  10.3 0.449   B  15.7 0.640  + 5.405 D/V

# 45 Durant Avenue / Fulton Street   A   7.2 0.327   A   9.8 0.389  + 2.689 D/V

# 46 Durant Avenue / Telegraph Aven  B  10.6 0.247   B  11.4 0.325  + 0.774 D/V

# 47 Durant Avenue / College Avenue  A   9.0 0.277   B  12.5 0.408  + 3.553 D/V

# 48 Durant Avenue / Piedmont Avenu  C  15.4 0.703   D  26.2 0.897  + 0.194 V/C
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             AM Peak Hour
------------------------------------------------------------------------
Intersection                      Base          Future        Change
                              Del/    V/      Del/    V/        in
                          LOS Veh    C    LOS Veh    C
# 49 Channing Way / Shattuck Avenue  A   4.6 0.469   A   6.1 0.590  + 1.529 D/V

# 50 Channing Way / Fulton Street    B  11.8 0.498   B  14.6 0.603  + 0.104 V/C

# 51 Channing Way / Telegraph Avenu  A   8.9 0.304   B  12.0 0.481  + 3.073 D/V

# 52 Channing Way / College Avenue   B  13.3 0.390   C  21.7 0.597  + 8.410 D/V

# 53 Haste Street / Shattuck Avenue  D  37.6 0.530   D  42.8 0.647  + 5.193 D/V

# 54 Haste Street / Fulton Street    B  13.5 0.309   B  15.2 0.378  + 1.620 D/V

# 55 Haste Street / Telegraph Avenu  B  15.3 0.350   B  16.5 0.437  + 1.203 D/V

# 56 Haste Street / College Avenue   A   8.0 0.415   B  11.1 0.600  + 3.059 D/V

# 57 Dwight Way / Martin Luther Kin  B  13.4 0.676   C  20.6 0.846  + 7.264 D/V

# 58 Dwight Way / Shattuck Avenue     B  10.1 0.713   B  13.7 0.852  + 3.563 D/V

# 59 Dwight Way / Fulton Street       B  11.2 0.419   B  13.6 0.493  + 2.463 D/V

# 60 Dwight Way / Telegraph Avenue    B  15.9 0.667   B  17.7 0.745  + 1.760 D/V

# 61 Dwight Way / College Avenue      B  10.4 0.439   B  12.3 0.538  + 1.866 D/V

# 62 Dwight Way / Piedmont Avenue /   A   9.3 0.352   B  11.1 0.422  + 1.830 D/V


# 63 Dwight Avenue / Prospect Stree  A   5.8 0.000   B   5.8 0.000  + 0.000 V/C

# 64 Adeline Street / Ward Avenue /  B  14.3 0.708   B  16.9 0.798  + 2.601 D/V

# 65 Derby Street / Warring Street   F 106.2 1.185   F 189.0 1.421  + 0.236 V/C

# 66 Derby Street / Claremont Blvd.  B  12.8 0.567   B  18.5 0.662  + 5.669 D/V

# 67 Ashby Avenue / Seventh Street   C  32.0 0.804   D  54.2 0.993  +22.288 D/V

# 68 Ashby Avenue / San Pablo Avenu  C  33.3 0.668   D  35.8 0.905  + 2.505 D/V

# 69 Ashby Avenue / Adeline Street   D  39.5 0.501   D  41.8 0.604  + 2.305 D/V

# 70 Ashby Avenue / Shattuck Avenue  B  14.6 0.454   B  16.2 0.533  + 1.612 D/V

# 71 Ashby Avenue / Telegraph Avenu  C  23.7 0.671   C  26.1 0.893  + 2.463 D/V

# 72 Ashby Avenue / College Avenue   C  33.7 0.929   D  36.5 1.085  + 2.865 D/V
```

UC Berkeley LRDP EIR
2020 No Project Conditions
AM Peak Hour

Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS Veh	C	LOS Veh	C	
# 73 Ashby Avenue / Claremont Avenu	C 21.3	0.674	C 23.5	0.778	+ 2.229 D/V
# 74 Tunnel Road / SR 13	B 13.9	0.697	B 15.8	0.771	+ 1.849 D/V

UC Berkeley LRDP EIR
2020 No Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #1 Marin Avenue / San Pablo Avenue
****
Cycle (sec):   100   Critical Vol./Cap. (X):   0.974
Loss Time (sec):   16 (Y+R = 4 sec) Average Delay (sec/veh):   89.1
Optimal Cycle: 156   Level Of Service: F
****

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0

Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM

	NB L	NB T	NB R	SB L	SB T	SB R	EB L	EB T	EB R	WB L	WB T	WB R
Base Vol:	102	363	59	106	891	15	38	672	235	147	768	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	102	363	59	106	891	15	38	672	235	147	768	90
Added Vol:	0	3	0	1	43	0	0	3	0	0	0	2
Future:	120	120	64	20	131	14	14	67	30	34	267	10
Initial Fut:	222	486	123	127	1065	29	52	742	265	181	1035	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	222	486	123	127	1065	29	52	742	265	181	1035	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	222	486	123	127	1065	29	52	742	265	181	1035	102
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	222	486	123	127	1065	29	52	742	265	181	1035	102

Saturation Flow Module:

	NB L	NB T	NB R	SB L	SB T	SB R	EB L	EB T	EB R	WB L	WB T	WB R
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.95	0.95	0.95	0.95	0.91	0.91	0.95	0.94	0.94
Lanes:	1.00	1.60	0.40	1.00	1.95	0.05	1.00	1.47	0.53	1.00	1.82	0.18
Final Sat.:	1805	2794	707	1805	3500	95	1805	2556	913	1805	3243	320

Capacity Analysis Module:

	NB L	NB T	NB R	SB L	SB T	SB R	EB L	EB T	EB R	WB L	WB T	WB R
Vol/Sat:	0.12	0.17	0.17	0.07	0.30	0.30	0.03	0.29	0.29	0.10	0.32	0.32
Crit Moves:	****			****			****			****		
Green/Cycle:	0.12	0.36	0.36	0.12	0.36	0.36	0.17	0.21	0.21	0.15	0.31	0.31
Volume/Cap:	1.02	0.48	0.48	0.59	0.85	0.85	0.17	1.38	1.38	0.67	1.03	1.03
Delay/Veh:	111.8	25.1	25.1	45.8	34.7	34.7	35.7	220	220.0	46.4	69.4	69.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	111.8	25.1	25.1	45.8	34.7	34.7	35.7	220	220.0	46.4	69.4	69.4
DesignQueue:	11	18	5	6	41	1	2	35	12	9	43	4

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-------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                          2020 No Project Conditions
                                AM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #2 Marin Avenue / The Alameda
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):          0.655
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):    15.3
Optimal Cycle:        56          Level Of Service:                   B
********************************************************************************
Approach:        North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   25   25   25    25   25   25    23   23   23    23   23   23
Lanes:         0    1    0  1   0    1    0  1   0    1    0  1   0    1    0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    173  189    7    38  279   23    33  494  291    20  420   48
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 173  189    7    38  279   23    33  494  291    20  420   48
Added Vol:     1    1    0     0    4    0     0    4    0     0    0    0
Future:      110    0   10    10  190   20     0   70   50    10  170   10
Initial Fut: 284  190   17    48  473   43    33  568  341    30  590   58
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  284  190   17    48  473   43    33  568  341    30  590   58
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 284  190   17    48  473   43    33  568  341    30  590   58
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  284  190   17    48  473   43    33  568  341    30  590   58
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.55 0.55 0.55  0.83 0.83 0.83  0.82 0.82 0.82  0.84 0.84 0.84
Lanes:      1.00 0.92 0.08  0.17 1.68 0.15  0.07 1.21 0.72  0.09 1.74 0.17
Final Sat.: 1038  953   85   268 2641  240   110 1888 1134   141 2775  273
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.27 0.20 0.20  0.18 0.18 0.18  0.30 0.30 0.30  0.21 0.21 0.21
Crit Moves: ****                              ****
Green/Cycle: 0.42 0.42 0.42 0.42 0.42 0.42  0.46 0.46 0.46  0.46 0.46 0.46
Volume/Cap: 0.66 0.48 0.48  0.43 0.43 0.43  0.66 0.66 0.66  0.46 0.46 0.46
Delay/Veh:  19.6 15.4 15.4  14.4 14.4 14.4  15.9 15.9 15.9  13.1 13.1 13.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 19.6 15.4 15.4  14.4 14.4 14.4  15.9 15.9 15.9  13.1 13.1 13.1
DesignQueue:   6    4    0     1   10    1     1   12    7     1   12    1
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-------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                          2020 No Project Conditions
                                AM Peak Hour
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #3 Gilman Street / Sixth Street
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):          0.686
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):    16.4
Optimal Cycle:        46          Level Of Service:                   B
********************************************************************************
Approach:        North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   19   19   19    19   19   19    19   19   19    19   19   19
Lanes:         0    0    1! 0   0    1    0  1   0    0    1! 0   0    0    1! 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    122   24   56    11   45   28    21  416  114    47  430   20
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 122   24   56    11   45   28    21  416  114    47  430   20
Added Vol:     0    0    0     0    0    0     0    0    3     0    0    0
Future:       70    0   28     0   30    0     0   37   10    48   67    0
Initial Fut: 192   24   84    11   75   28    21  453  127    95  497   20
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  192   24   84    11   75   28    21  453  127    95  497   20
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 192   24   84    11   75   28    21  453  127    95  497   20
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  192   24   84    11   75   28    21  453  127    95  497   20
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.70 0.70 0.70  0.84 0.84 0.84  0.95 0.95 0.95  0.85 0.85 0.85
Lanes:      0.64 0.08 0.28  0.19 1.32 0.49  0.03 0.76 0.21  0.16 0.81 0.03
Final Sat.:  856  107  375   310 2111  788    63 1357  380   252 1317   53
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.22 0.22 0.22  0.04 0.04 0.04  0.33 0.33 0.33  0.38 0.38 0.38
Crit Moves:       ****                                              ****
Green/Cycle: 0.33 0.33 0.33 0.33 0.33 0.33  0.55 0.55 0.55  0.55 0.55 0.55
Volume/Cap: 0.69 0.69 0.69  0.11 0.11 0.11  0.61 0.61 0.61  0.69 0.69 0.69
Delay/Veh:  27.5 27.5 27.5  15.5 15.5 15.5  12.6 12.6 12.6  14.8 14.8 14.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 27.5 27.5 27.5  15.5 15.5 15.5  12.6 12.6 12.6  14.8 14.8 14.8
DesignQueue:   5    1    2     0    2    1     0    8    2     2    9    0
********************************************************************************
```

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----------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 No Project Conditions
                            AM Peak Hour
----------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
**********************************************************************
Intersection #4 Gilman Street / San Pablo Avenue
**********************************************************************
Cycle (sec):        100       Critical Vol./Cap. (X):        0.859
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):  42.7
Optimal Cycle:       93       Level Of Service:                 D
**********************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:      L  - T  - R     L  - T  - R     L  - T  - R     L  - T  - R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected       Protected       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:   4   35   35    4   35   35   31   31   31   31   31   31
Lanes:       1  0  1  1  0  1  0  1  1  0  0  1  0  1  0  0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    113  401   25   74 1055  125   75  189   96   62  318   42
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 113  401   25   74 1055  125   75  189   96   62  318   42
Added Vol:     0    3    0    0   43    0    0    0    0    0    0    0
Future:       30  305   60   60   70   20   35   20   10   10   40   32
Initial Fut: 143  709   85  134 1168  145  110  209  106   72  358   74
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  143  709   85  134 1168  145  110  209  106   72  358   74
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 143  709   85  134 1168  145  110  209  106   72  358   74
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  143  709   85  134 1168  145  110  209  106   72  358   74
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.93 0.93 0.95 0.93 0.93 0.56 0.56 0.56 0.86 0.86 0.86
Lanes:      1.00 1.79 0.21 1.00 1.78 0.22 0.52 0.98 0.50 0.14 0.71 0.15
Final Sat.: 1805 3172  380 1805 3160  392  550 1045  530  235 1167  241
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.08 0.22 0.22 0.07 0.37 0.37 0.20 0.20 0.20 0.31 0.31 0.31
Crit Moves: ****                ****                            ****
Green/Cycle: 0.15 0.37 0.37 0.15 0.37 0.37 0.37 0.37 0.37 0.37 0.37 0.37
Volume/Cap: 0.53 0.60 0.60 0.49 1.00 1.00 0.55 0.55 0.55 0.84 0.84 0.84
Delay/Veh:  46.4 27.6 27.6 45.4 56.1 56.1 28.0 28.0 28.0 42.5 42.5 42.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 46.4 27.6 27.6 45.4 56.1 56.1 28.0 28.0 28.0 42.5 42.5 42.5
DesignQueue:   7   26    3    6   45    6    4    8    4    3   14    3
**********************************************************************
```

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----------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 No Project Conditions
                            AM Peak Hour
----------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
**********************************************************************
Intersection #5 Rose Street / Shattuck Avenue
**********************************************************************
Cycle (sec):         65       Critical Vol./Cap. (X):        0.571
Loss Time (sec):      8 (Y+R =  5 sec) Average Delay (sec/veh):   9.8
Optimal Cycle:       52       Level Of Service:                 A
**********************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:      L  - T  - R     L  - T  - R     L  - T  - R     L  - T  - R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  17   17   17   17   17   17   27   27   27   27   27   27
Lanes:       1  0  1  1  0  1  0  1  1  0  0  1  0  0  1  0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     55  191   11  174  961   28   28  174   40   32  185   40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  55  191   11  174  961   28   28  174   40   32  185   40
Added Vol:     0    0    0    0    1    0    0    0    0    0    0    0
Future:       40  140   20   10  170   10   10   10   20   20   10   10
Initial Fut:  95  331   31  184 1132   38   38  184   60   52  195   50
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   95  331   31  184 1132   38   38  184   60   52  195   50
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  95  331   31  184 1132   38   38  184   60   52  195   50
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   95  331   31  184 1132   38   38  184   60   52  195   50
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.18 0.94 0.94 0.53 0.95 0.95 0.91 0.91 0.85 0.89 0.89 0.89
Lanes:      1.00 1.83 0.17 1.00 1.94 0.06 0.17 0.83 1.00 0.17 0.66 0.17

Final Sat.:  338 3258  305 1015 3475  117  297 1438 1615  297 1114  286
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.28 0.10 0.10 0.18 0.33 0.33 0.13 0.13 0.04 0.18 0.18 0.18
Crit Moves:                     ****                            ****
Green/Cycle: 0.46 0.46 0.46 0.46 0.46 0.46 0.42 0.42 0.42 0.42 0.42 0.42
Volume/Cap: 0.61 0.22 0.22 0.39 0.71 0.71 0.31 0.31 0.09 0.42 0.42 0.42
Delay/Veh:  22.0  4.8  4.8  7.4  8.5  8.5 13.8 13.8 11.8 15.3 15.3 15.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 22.0  4.8  4.8  7.4  8.5  8.5 13.8 13.8 11.8 15.3 15.3 15.3
DesignQueue:   2    7    1    4   24    1    1    4    1    1    4    1
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--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #6 Cedar Street / Martin Luther King Way
**************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):       0.966
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):    31.0
Optimal Cycle:      112          Level Of Service:               C
**************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  20   20   20   20   20   20   20   20   20   20   20   20
Lanes:        0  0 1! 0  0   0  0 1! 0  0   0  0 1! 0  0   0  0 1! 0  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     33  292   44   35  617   26   14  276   62   58  248   30
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  33  292   44   35  617   26   14  276   62   58  248   30
Added Vol:     0    2    0    0    4    0    0    4    0    0    0    0
Future:       10   40   20   20  220   10   10   50   30   30   90   20
Initial Fut:  43  334   64   55  841   36   24  330   92   88  338   50
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   43  334   64   55  841   36   24  330   92   88  338   50
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  43  334   64   55  841   36   24  330   92   88  338   50
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   43  334   64   55  841   36   24  330   92   88  338   50
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 0.86 0.95 0.95 0.95 0.94 0.94 0.94 0.76 0.76 0.76
Lanes:      0.10 0.76 0.14 0.06 0.90 0.04 0.05 0.74 0.21 0.18 0.71 0.11
Final Sat.:  158 1231  236  106 1627   70   96 1320  368  267 1024  152
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.27 0.27 0.27 0.52 0.52 0.52 0.25 0.25 0.25 0.33 0.33 0.33
Crit Moves:                 ****                            ****
Green/Cycle: 0.54 0.54 0.54 0.54 0.54 0.54 0.34 0.34 0.34 0.34 0.34 0.34
Volume/Cap: 0.51 0.51 0.51 0.97 0.97 0.97 0.73 0.73 0.73 0.97 0.97 0.97
Delay/Veh:   8.9  8.9  8.9 32.1 32.1 32.1 26.3 26.3 26.3 53.9 53.9 53.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  8.9  8.9  8.9 32.1 32.1 32.1 26.3 26.3 26.3 53.9 53.9 53.9
DesignQueue:   1    6    1    1   16    1    1    8    2    2    9    1
**************************************************************************
```

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--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #7 Cedar Street / Shattuck Avenue
**************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):       0.621
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):    10.3
Optimal Cycle:       50          Level Of Service:               B
**************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  20   20   20   20   20   20   22   22   22   22   22   22
Lanes:        1  0  1  1  0   1  0  1  1  0   1  0  0  1  0   1  0  0  1  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     48  256   41  127  933   52   44  257   86   94  268   56
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  48  256   41  127  933   52   44  257   86   94  268   56
Added Vol:     0    0    0    0    1    0    0    4    0    0    0    0
Future:       20  140   20   10  150   10   10   30   10   40   70   20
Initial Fut:  68  396   61  137 1084   62   54  291   96  134  338   76
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   68  396   61  137 1084   62   54  291   96  134  338   76
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  68  396   61  137 1084   62   54  291   96  134  338   76
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   68  396   61  137 1084   62   54  291   96  134  338   76
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.23 0.93 0.93 0.49 0.94 0.94 0.33 0.96 0.96 0.37 0.97 0.97
Lanes:      1.00 1.73 0.27 1.00 1.89 0.11 1.00 0.75 0.25 1.00 0.82 0.18
Final Sat.:  429 3066  472  922 3387  194  633 1376  454  694 1508  339
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.13 0.13 0.15 0.32 0.32 0.09 0.21 0.21 0.19 0.22 0.22
Crit Moves:                 ****                            ****
Green/Cycle: 0.52 0.52 0.52 0.52 0.52 0.52 0.36 0.36 0.36 0.36 0.36 0.36
Volume/Cap: 0.31 0.25 0.25 0.29 0.62 0.62 0.24 0.59 0.59 0.53 0.62 0.62
Delay/Veh:   6.2  2.9  2.9  4.1  4.8  4.8 16.9 20.6 20.6 24.4 21.4 21.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  6.2  2.9  2.9  4.1  4.8  4.8 16.9 20.6 20.6 24.4 21.4 21.4
DesignQueue:   1    7    1    2   21    1    1    7    2    3    8    2
**************************************************************************
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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #8 Cedar Street / Oxford Street
*******************************************************************************
Cycle (sec):       65          Critical Vol./Cap. (X):      0.948
Loss Time (sec):    8 (Y+R =  4 sec) Average Delay (sec/veh):      57.5
Optimal Cycle:    102          Level Of Service:               E
*******************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16   16    16   16   16    16   16   16    16   16   16
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     45  186   56    34  531   19    18  314   75   144  343   19
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  45  186   56    34  531   19    18  314   75   144  343   19
Added Vol:     0    0    0     0    0    0     0    3    1     0    0    0
Future:       30   20   10    10   10    0    10   40   30    10  120    0
Initial Fut:  75  206   66    44  541   19    28  357  106   154  463   19
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   75  206   66    44  541   19    28  357  106   154  463   19
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  75  206   66    44  541   19    28  357  106   154  463   19
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   75  206   66    44  541   19    28  357  106   154  463   19
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.79 0.79 0.79  0.95 0.95 0.95  0.93 0.93 0.93  0.67 0.67 0.67
Lanes:      0.22 0.59 0.19  0.07 0.90 0.03  0.06 0.73 0.21  0.24 0.73 0.03
Final Sat.:  324  890  285   132 1620   57   101 1284  381   310  931   38
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.23 0.23 0.23  0.33 0.33 0.33  0.28 0.28 0.28  0.50 0.50 0.50
Crit Moves:                   ****                            ****
Green/Cycle: 0.50 0.49 0.49  0.50 0.50 0.50  0.40 0.39 0.39  0.40 0.40 0.40
Volume/Cap: 0.46 0.47 0.47  0.67 0.67 0.67  0.70 0.72 0.72  1.26 1.26 1.26
Delay/Veh:  10.2 10.8 10.8  13.2 13.2 13.2  22.4 23.6 23.6 151.4  151 151.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 10.2 10.8 10.8  13.2 13.2 13.2  22.4 23.6 23.6 151.4  151 151.4
DesignQueue:   1    4    1     1   11    0     1    9    3     4   11    0
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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #9 Cedar Street / Euclid Avenue
*******************************************************************************
Cycle (sec):       60          Critical Vol./Cap. (X):      0.595
Loss Time (sec):    8 (Y+R =  5 sec) Average Delay (sec/veh):      13.7
Optimal Cycle:     42          Level Of Service:               B
*******************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  17   17   17    17   17   17    17   17   17    17   17   17
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     30   85   29    23  295  141    50  143  117    28  209    8
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  30   85   29    23  295  141    50  143  117    28  209    8
Added Vol:     0    0    0     0    3    3     0    0    0     0    0    0
Future:       20    0    0     0   10   40    10   30   20    20   80    0
Initial Fut:  50   85   29    23  308  184    60  173  137    48  289    8
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   50   85   29    23  308  184    60  173  137    48  289    8
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  50   85   29    23  308  184    60  173  137    48  289    8
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   50   85   29    23  308  184    60  173  137    48  289    8
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.78 0.78 0.78  0.94 0.94 0.94  0.86 0.86 0.86  0.91 0.91 0.91
Lanes:      0.30 0.52 0.18  0.04 0.60 0.36  0.16 0.47 0.37  0.14 0.84 0.02
Final Sat.:  453  770  263    80 1066  637   265  765  606   242 1455   40
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.11 0.11 0.11  0.29 0.29 0.29  0.23 0.23 0.23  0.20 0.20 0.20
Crit Moves:                   ****             ****
Green/Cycle: 0.49 0.49 0.49  0.49 0.49 0.49  0.38 0.38 0.38  0.38 0.38 0.38
Volume/Cap: 0.23 0.23 0.23  0.59 0.59 0.59  0.59 0.59 0.59  0.52 0.52 0.52
Delay/Veh:   9.1  9.1  9.1  12.3 12.3 12.3  16.4 16.4 16.4  15.1 15.1 15.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  9.1  9.1  9.1  12.3 12.3 12.3  16.4 16.4 16.4  15.1 15.1 15.1
DesignQueue:   1    1    1     0    6    3     1    4    3     1    6    0
*******************************************************************************
```

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CUMULATIVE + LAB AM        Thu Mar 18, 2004 11:38:09          Page 16-1          CUMULATIVE + LAB AM        Thu Mar 18, 2004 11:38:09          Page 17-1
--------------------------------------------------------------------------------    --------------------------------------------------------------------------------
                        UC Berkeley LRDP EIR                                                                UC Berkeley LRDP EIR
                     2020 No Project Conditions                                                          2020 No Project Conditions
                          AM Peak Hour                                                                        AM Peak Hour
--------------------------------------------------------------------------------    --------------------------------------------------------------------------------
                  Level Of Service Computation Report                                                 Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)                        2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************    ********************************************************************************
Intersection #10 Grizzly Peak Blvd / Centennial Drive                              Intersection #11 Hearst Avenue / Shattuck Avenue
********************************************************************************    ********************************************************************************
Cycle (sec):         100         Critical Vol./Cap. (X):        0.453             Cycle (sec):          65         Critical Vol./Cap. (X):        0.501
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):   10.9           Loss Time (sec):       8 (Y+R =  6 sec) Average Delay (sec/veh):    7.9
Optimal Cycle:         0         Level Of Service:                B               Optimal Cycle:        52         Level Of Service:                A
********************************************************************************    ********************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound         Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R   L  -  T  -  R       Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R   L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|        -----------|--------------||--------------||--------------||--------------|
Control:       Stop Sign       Stop Sign       Stop Sign       Stop Sign           Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include            Rights:         Include         Include         Include         Include
Min. Green:   0   0   0     0   0   0     0   0   0     0   0   0                   Min. Green:  22  22  22    22  22  22    22  22  22    22  22  22
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0         Lanes:        1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  1  0  1  0
-----------|--------------||--------------||--------------||--------------|        -----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 4 Dec 2002 << 7:00-9:00 AM                           Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     31   13    13    25   52    4     6  165  143   169   90   16
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00      Base Vol:     19  291    43   199  810   57    31  278   24    11  225   51
Initial Bse:  31   13    13    25   52    4     6  165  143   169   90   16        Growth Adj:  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Added Vol:     0    0     2     0    0    0     0    0    5    18    0    0         Initial Bse:  19  291    43   199  810   57    31  278   24    11  225   51
Future:       30    0    10     0    0    0     0   20   10    20   10    0         Added Vol:     0    0     1     1    0    0     0   13    0     6    2    0
Initial Fut:  61   13    25    25   52    4     6  185  158   207  100   16        Future:       10   90    20    50  160   20    30   30   30    10   20   70
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00      Initial Fut:  29  381    64   250  970   77    61  321   54    27  247  121
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00      User Adj:    1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   61   13    25    25   52    4     6  185  158   207  100   16        PHF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Reduct Vol:    0    0     0     0    0    0     0    0    0     0    0    0         PHF Volume:   29  381    64   250  970   77    61  321   54    27  247  121
Reduced Vol:  61   13    25    25   52    4     6  185  158   207  100   16        Reduct Vol:    0    0     0     0    0    0     0    0    0     0    0    0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00      Reduced Vol:  29  381    64   250  970   77    61  321   54    27  247  121
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00      PCE Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   61   13    25    25   52    4     6  185  158   207  100   16        MLF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
-----------|--------------||--------------||--------------||--------------|        Final Vol.:   29  381    64   250  970   77    61  321   54    27  247  121
Saturation Flow Module:                                                           -----------|--------------||--------------||--------------||--------------|
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00      Saturation Flow Module:
Lanes:       0.62 0.13  0.25  0.31 0.64  0.05  0.02 0.53 0.45  0.64 0.31 0.05      Sat/Lane:    1900 1900  1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Final Sat.:  362   77   148   177  369   28    13  409  349   457  221   35        Adjustment:  0.27 0.93  0.93  0.49 0.94 0.94  0.78 0.78 0.78  0.82 0.82 0.82
-----------|--------------||--------------||--------------||--------------|        Lanes:       1.00 1.71  0.29  1.00 1.85 0.15  0.28 1.47 0.25  0.14 1.25 0.61
Capacity Analysis Module:                                                         Final Sat.:  517 3023   508   933 3308  263   417 2195  369   213 1949  955
Vol/Sat:     0.17 0.17  0.17  0.14 0.14  0.14  0.45 0.45 0.45  0.45 0.45 0.45      -----------|--------------||--------------||--------------||--------------|
Crit Moves:       ****            ****            ****            ****             Capacity Analysis Module:
Delay/Veh:    9.5  9.5   9.5   9.4  9.4   9.4  11.0 11.0 11.0  11.7 11.7 11.7       Vol/Sat:     0.06 0.13  0.13  0.27 0.29 0.29  0.15 0.15 0.15  0.13 0.13 0.13
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00      Crit Moves:                  ****            ****
AdjDel/Veh:   9.5  9.5   9.5   9.4  9.4   9.4  11.0 11.0 11.0  11.7 11.7 11.7       Green/Cycle: 0.54 0.54  0.54  0.54 0.54 0.54  0.34 0.34 0.34  0.34 0.34 0.34
LOS by Move:  A    A     A     A    A     A     B    B    B     B    B    B         Volume/Cap:  0.10 0.23  0.23  0.50 0.54 0.54  0.43 0.43 0.43  0.37 0.37 0.37
ApproachDel:       9.5             9.4            11.0            11.7              Delay/Veh:    2.4  2.0   2.0   5.6  3.3  3.3  18.0 18.0 18.0  17.3 17.3 17.3
Delay Adj:         1.00            1.00           1.00            1.00             User DelAdj: 1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
ApprAdjDel:        9.5             9.4            11.0            11.7              AdjDel/Veh:   2.4  2.0   2.0   5.6  3.3  3.3  18.0 18.0 18.0  17.3 17.3 17.3
LOS by Appr:        A               A               B               B              DesignQueue:   0    7     1     4   17    1     2    8    1     1    6    3
********************************************************************************    ********************************************************************************


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                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                               AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #12 Hearst Avenue / Oxford Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):          0.517
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     11.6

Optimal Cycle:      49          Level Of Service:                   B
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   19   19   19    19   19   19    22   22   22    22   22   22
Lanes:         1  0  1  1  0    0  1  0  1  0    0  1  0  1  0    1  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     46  328  374    48  841   38    10  399  114   207  281   27
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  46  328  374    48  841   38    10  399  114   207  281   27
Added Vol:     0    0   55     1    0    0     0   15    0     5    8    0
Future:       20   50   40    10   30   20     0   80   30    30   70   10
Initial Fut:  66  378  469    59  871   58    10  494  144   242  359   37
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   66  378  469    59  871   58    10  494  144   242  359   37
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  66  378  469    59  871   58    10  494  144   242  359   37
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   66  378  469    59  871   58    10  494  144   242  359   37
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
Lanes:      1.00 1.00 1.00  0.12 1.76 0.12  0.03 1.53 0.44  1.14 1.69 0.17
Final Sat.: 1900 1805 1805   216 3183  212    56 2752  802  2054 3047  314
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.03 0.21 0.26  0.27 0.27 0.27  0.18 0.18 0.18  0.12 0.12 0.12
Crit Moves:                 ****             ****
Green/Cycle: 0.53 0.53 0.53  0.53 0.53 0.53  0.35 0.35 0.35  0.35 0.35 0.35
Volume/Cap: 0.07 0.40 0.49  0.52 0.52 0.52  0.52 0.52 0.52  0.34 0.34 0.34
Delay/Veh:   5.5  7.1  8.0   8.1  8.1  8.1  18.4 18.4 18.4  16.2 16.2 16.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  5.5  7.1  8.0   8.1  8.1  8.1  18.4 18.4 18.4  16.2 16.2 16.2
DesignQueue:   1    7    9     1   16    1     0   12    4     6    9    1
********************************************************************************
```

```
                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                               AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
           2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #13 Hearst Avenue / Spruce Street
********************************************************************************
Average Delay (sec/veh):      3.1          Worst Case Level Of Service:      B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:       0  0  0  0  0    0  0  1! 0  0    0  1  1  0  0    0  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0     9    0   63    11  843    0     0  430    7
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0     9    0   63    11  843    0     0  430    7
Added Vol:     0    0    0     4    0    0     0   71    0     0   13    1
Future:        0    0    0     0    0   20     0  130    0     0  110    0
Initial Fut:   0    0    0    13    0   83    11 1044    0     0  553    8
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0    13    0   83    11 1044    0     0  553    8
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    0    0    0    13    0   83    11 1044    0     0  553    8
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.8 xxxx  6.9   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1101 xxxx  281   561 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  209 xxxx  723  1020 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  208 xxxx  723  1020 xxxx xxxxx  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  8.6 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *     *     *    *     *     A    *     *     *    *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  541 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 13.1 xxxxx  8.6 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *     *     *    B     *     A    *     *     *    *     *
ApproachDel:    xxxxxx            13.1            xxxxxx           xxxxxx
ApproachLOS:      *                B                *                *
```

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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Unsignalized Method (Future Volume Alternative)
*************************************************************************
Intersection #14 Hearst Avenue / Arch Street / Le Conte Avenue
*************************************************************************
Average Delay (sec/veh):     2.5        Worst Case Level Of Service:      B
*************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign       Uncontrolled    Uncontrolled
Rights:         Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0    0    0     2    0  130   276  566    0     0  307    4
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0    0    0     2    0  130   276  566    0     0  307    4
Added Vol:    0    0    0     0    0    0    24   51    0     0   14    0
Future:       0    0    0     0    0   40    30  100    0     0   90    0
Initial Fut:  0    0    0     2    0  170   330  717    0     0  411    4
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0    0    0     2    0  170   330  717    0     0  411    4
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:   0    0    0     2    0  170   330  717    0     0  411    4
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.8 xxxx   6.9   4.1 xxxxx xxxxx  xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5 xxxx   3.3   2.2 xxxxx xxxxx  xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  1432 xxxx   208   415 xxxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   128 xxxx   805  1155 xxxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx    99 xxxx   805  1155 xxxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.4 xxxx xxxxx  xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     A    *    *     *    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.:  xxxx xxxx xxxxx  xxxx  743 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 11.3 xxxxx xxxxx xxxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   *    *    *     *    B    *     *    *    *     *    *    *
ApproachDel:    xxxxxx             11.3           xxxxxx           xxxxxx
ApproachLOS:      *                 B                *                *
```

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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Unsignalized Method (Future Volume Alternative)
*************************************************************************
Intersection #15 Hearst Avenue / Scenic Avenue
*************************************************************************
Average Delay (sec/veh):     0.4        Worst Case Level Of Service:      A
*************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign       Uncontrolled    Uncontrolled
Rights:         Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  0  0  1    0  0  2  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     0    0    0     0    0   37     0  531    0     0  290   55
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0    0    0     0    0   37     0  531    0     0  290   55
Added Vol:    0    0    0     0    0    1     0    0    0     0   13    2
Future:       0    0    0     0    0   20     0  100    0     0   90   10
Initial Fut:  0    0    0     0    0   58     0  631    0     0  393   67
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0    0    0     0    0   58     0  631    0     0  393   67
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:   0    0    0     0    0   58     0  631    0     0  393   67
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx   6.9 xxxxx xxxx xxxxx  xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx  xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx   230 xxxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx   779 xxxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx   779 xxxxx xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx  10.0 xxxxx xxxx xxxxx  xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    A     *    *    *     *    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.:  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   *    *    *     *    *    *     *    *    *     *    *    *
ApproachDel:    xxxxxx             10.0           xxxxxx           xxxxxx
ApproachLOS:      *                 A                *                *
```

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                          UC Berkeley LRDP EIR

                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #16 Hearst Avenue / Euclid Avenue
********************************************************************************
Cycle (sec):         65         Critical Vol./Cap. (X):          0.582
Loss Time (sec):     12 (Y+R =  3 sec) Average Delay (sec/veh):    17.7
Optimal Cycle:       53         Level Of Service:                   B
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0    25   25   25    5   16   16   16   16   16
Lanes:        0 0 1! 0 0    0 0 1! 0 0    1  0  0 1 0    0  0 1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00-9:00 AM
Base Vol:       2    0    2   47    1  151   75  448    1    1  276   10
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    2    0    2   47    1  151   75  448    1    1  276   10
Added Vol:      0    0    0    0    0    3    0   51    0    0   20    0
Future:         0    0    0   10    0   50   10   90    0    0   70    0
Initial Fut:    2    0    2   57    1  204   85  589    1    1  366   10
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     2    0    2   57    1  204   85  589    1    1  366   10
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    2    0    2   57    1  204   85  589    1    1  366   10
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:     2    0    2   57    1  204   85  589    1    1  366   10
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.87 1.00 0.87 0.84 0.84 0.84 0.63 1.00 1.00 1.00 1.00 1.00
Lanes:       0.50 0.00 0.50 0.21 0.01 0.78 1.00 0.99 0.01 0.01 0.97 0.02
Final Sat.:   826    0  826  347    6 1241 1199 1897    3    5 1837   50
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.16 0.16 0.16 0.07 0.31 0.31 0.20 0.20 0.20
Crit Moves:                      ****              ****
Green/Cycle: 0.38 0.00 0.38 0.38 0.38 0.38 0.43 0.43 0.43 0.43 0.43 0.43
Volume/Cap:  0.01 0.00 0.01 0.43 0.43 0.43 0.16 0.72 0.72 0.46 0.46 0.46
Delay/Veh:   12.4  0.0 12.4 16.9 16.9 16.9 12.0 20.7 20.7 15.0 15.0 15.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  12.4  0.0 12.4 16.9 16.9 16.9 12.0 20.7 20.7 15.0 15.0 15.0
DesignQueue:    0    0    0    1    0    5    2   13    0    0    8    0
********************************************************************************
```

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #17 Hearst Avenue / Le Roy Avenue
********************************************************************************
Average Delay (sec/veh):      3.3       Worst Case Level Of Service:        B
********************************************************************************
Approach:    North Bound      South Bound       East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:       0    0    0   19    0   60   59  436    0    0  230    3
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    0    0    0   19    0   60   59  436    0    0  230    3
Added Vol:      0    0    0    0    0    0    0   51    0    0   20    0
Future:         0    0    0    0    0   10   10   90    0    0   70    0
Initial Fut:    0    0    0   19    0   70   69  577    0    0  320    3
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     0    0    0   19    0   70   69  577    0    0  320    3
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:     0    0    0   19    0   70   69  577    0    0  320    3
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx  6.2  4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  780 xxxx  322  323 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  274 xxxx  724 1248 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  262 xxxx  724 1248 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  8.1 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     A    *    *     *    *    *
Movement:   LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx  526 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx 13.2 xxxx  8.1 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   *    *    *     *    B    *     A    *    *     *    *    *
ApproachDel:    xxxxxx          13.2            xxxxxx          xxxxxx
ApproachLOS:       *              B                *              *
```

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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #18 Hearst Avenue / Gayley Road / LaLoma Avenue
********************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):        1.151
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    56.6
Optimal Cycle:     180          Level Of Service:                 E
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    17   17   17    17   17   17
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00-9:00 AM
Base Vol:    274  212   95    12  274   21    28  161  304    21   33    5
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 274  212   95    12  274   21    28  161  304    21   33    5
Added Vol:    11    4   32     0   37    0     0   32   19     2    9    0
Future:       70   10   20     0  120    0     0   80    0    20   20    0
Initial Fut: 355  226  147    12  431   21    28  273  323    43   62    5
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  355  226  147    12  431   21    28  273  323    43   62    5
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 355  226  147    12  431   21    28  273  323    43   62    5
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  355  226  147    12  431   21    28  273  323    43   62    5
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.57 0.57 0.57  0.98 0.98 0.98  0.92 0.92 0.92  0.76 0.76 0.85
Lanes:      0.49 0.31 0.20  0.03 0.93 0.04  0.04 0.44 0.52  0.41 0.59 1.00
Final Sat.:  530  337  219    48 1721   84    78  761  900   587  847 1615
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.67 0.67 0.67  0.25 0.25 0.25  0.36 0.36 0.36  0.07 0.07 0.00
Crit Moves:      ****                            ****
Green/Cycle: 0.55 0.55 0.55  0.55 0.55 0.55  0.40 0.40 0.00  0.40 0.40 0.40
Volume/Cap: 1.21 1.21 1.21  0.45 0.45 0.45  0.90 0.90 xxxx  0.18 0.18 0.01
Delay/Veh:  125.8  126 125.8  11.4 11.4 11.4  35.5 35.5  0.0  13.7 13.7 12.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 125.8  126 125.8  11.4 11.4 11.4  35.5 35.5  0.0  13.7 13.7 12.1
DesignQueue:   7    5    3     0    9    0     1    7   15     1    2    0
********************************************************************************
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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #19 Berkeley Way / Oxford Street
********************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):        0.479
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     6.5
Optimal Cycle:      46          Level Of Service:                 A
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    20   20   20    20   20   20
Lanes:        1  0  1  1  0   1  0  1  1  0   0  0  1! 0  0   1  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     39  717   40    30 1132   11    20   18   72    10    2   12
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  39  717   40    30 1132   11    20   18   72    10    2   12
Added Vol:     0   55    0     0    5    0     0    0    0     0    0    0
Future:       10  110   10     0  100    0     0    0   20     0    0    0
Initial Fut:  49  882   50    30 1237   11    20   18   92    10    2   12
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   49  882   50    30 1237   11    20   18   92    10    2   12
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  49  882   50    30 1237   11    20   18   92    10    2   12
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   49  882   50    30 1237   11    20   18   92    10    2   12
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.19 0.94 0.94  0.29 0.95 0.95  0.87 0.87 0.87  0.86 0.87 0.87
Lanes:      1.00 1.89 0.11  1.00 1.98 0.02  0.15 0.14 0.71  1.00 0.14 0.86
Final Sat.:  365 3389  192   557 3575   32   255  230 1174  1625  236 1418
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.13 0.26 0.26  0.05 0.35 0.35  0.08 0.08 0.08  0.01 0.01 0.01
Crit Moves:                       ****             ****
Green/Cycle: 0.60 0.60 0.60  0.60 0.60 0.60  0.29 0.29 0.29  0.29 0.29 0.29
Volume/Cap: 0.22 0.43 0.43  0.09 0.58 0.58  0.27 0.27 0.27  0.02 0.03 0.03
Delay/Veh:   6.1  5.0  5.0   3.9  6.1  6.1  20.8 20.8 20.8  18.1 18.1 18.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  6.1  5.0  5.0   3.9  6.1  6.1  20.8 20.8 20.8  18.1 18.1 18.1
DesignQueue:   1   15    1     0   21    0     1    1    3     0    0    0
********************************************************************************
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                              UC Berkeley LRDP EIR
                            2020 No Project Conditions

                                 AM Peak Hour
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                      Level Of Service Computation Report
                 2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #20 University Avenue / Sixth Street
********************************************************************************
Cycle (sec):        114          Critical Vol./Cap. (X):          0.923
Loss Time (sec):     16 (Y+R =  5 sec) Average Delay (sec/veh):     95.5
Optimal Cycle:      180          Level Of Service:                   F
********************************************************************************
Approach:          North Bound       South Bound        East Bound        West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            ------------|---------------||---------------||---------------||---------------|
Control:          Prot+Permit        Permitted         Protected          Protected
Rights:             Include           Include           Include            Include
Min. Green:      6   23   23     0   23   23     6   15   15     6   15   15
Lanes:           1  0  1  0  1   1  0  1  0  1   1  0  1  1  0   1  0  1  1  0
            ------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:       211  111   19    73  290  325    89  932  333    40  931   21
Growth Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:    211  111   19    73  290  325    89  932  333    40  931   21
Added Vol:        0    0    6     0    0    1     6   47    0      0    6    0
Future:         150   60   10    10   10   80    10   60   40     10  150   10
Initial Fut:    361  171   35    83  300  406   105 1039  373     50 1087   31
User Adj:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     361  171   35    83  300  406   105 1039  373     50 1087   31
Reduct Vol:       0    0    0     0    0    0     0    0    0      0    0    0
Reduced Vol:    361  171   35    83  300  406   105 1039  373     50 1087   31
PCE Adj:       1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:     361  171   35    83  300  406   105 1039  373     50 1087   31
            ------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:    0.95 1.00 0.85   0.61 1.00 0.85   0.95 0.91 0.91   0.95 0.95 0.95
Lanes:         1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.47 0.53   1.00 1.94 0.06
Final Sat.:    1805 1900 1615   1159 1900 1615   1805 2550  915   1805 3496  100
            ------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:       0.20 0.09 0.02   0.07 0.16 0.25   0.06 0.41 0.41   0.03 0.31 0.31
Crit Moves:    ****                  ****            ****             ****
Green/Cycle:   0.41 0.41 0.41   0.27 0.27 0.27   0.10 0.32 0.32   0.05 0.32 0.32
Volume/Cap:    0.49 0.22 0.05   0.26 0.58 0.92   0.60 1.29 1.29   0.53 0.98 0.98
Delay/Veh:     26.9 22.3 20.3   34.6 40.7 68.0   63.9  177 176.5   72.0 62.0 62.0
User DelAdj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:    26.9 22.3 20.3   34.6 40.7 68.0   63.9  177 176.5   72.0 62.0 62.0
DesignQueue:     14    7    1     4   14   20     6   50   18      3   51    1
********************************************************************************
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                              UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
                 2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #21 University Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):        114          Critical Vol./Cap. (X):          0.837
Loss Time (sec):     16 (Y+R =  5 sec) Average Delay (sec/veh):    128.0
Optimal Cycle:      101          Level Of Service:                   F
********************************************************************************
Approach:          North Bound       South Bound        East Bound        West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            ------------|---------------||---------------||---------------||---------------|
Control:          Protected         Protected          Protected          Protected
Rights:             Include           Include           Include            Include
Min. Green:      5   21   21     5   21   21     5   22   22     5   22   22
Lanes:           1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
            ------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:       100  457   75   190  837   83    56  957   49    63  644   93
Growth Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:    100  457   75   190  837   83    56  957   49    63  644   93
Added Vol:        0    0    1    11   28    0     0   53    0      0    6    3
Future:          50  200   40    60   30   20    10   60   10     10  120  100
Initial Fut:    150  657  116   261  895  103    66 1070   59     73  770  196
User Adj:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     150  657  116   261  895  103    66 1070   59     73  770  196
Reduct Vol:       0    0    0     0    0    0     0    0    0      0    0    0
Reduced Vol:    150  657  116   261  895  103    66 1070   59     73  770  196
PCE Adj:       1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:     150  657  116   261  895  103    66 1070   59     73  770  196
            ------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:    0.95 0.93 0.93   0.95 0.94 0.94   0.95 0.94 0.94   0.95 0.92 0.92
Lanes:         1.00 1.70 0.30   1.00 1.79 0.21   1.00 1.90 0.10   1.00 1.59 0.41
Final Sat.:    1805 3001  530   1805 3189  367   1805 3394  187   1805 2791  710
            ------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:       0.08 0.22 0.22   0.14 0.28 0.28   0.04 0.32 0.32   0.04 0.28 0.28
Crit Moves:    ****                  ****            ****             ****
Green/Cycle:   0.17 0.31 0.31   0.17 0.31 0.31   0.05 0.22 0.22   0.06 0.22 0.22
Volume/Cap:    0.50 0.71 0.71   0.87 0.91 0.91   0.70 1.44 1.44   0.66 1.26 1.26
Delay/Veh:     49.0 39.1 39.1   73.2 51.2 51.2   87.6  249 248.7   79.0  171 171.1
User DelAdj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:    49.0 39.1 39.1   73.2 51.2 51.2   87.6  249 248.7   79.0  171 171.1
DesignQueue:      8   30    5    14   42    5     4   57    3      4   41   10
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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #22 University Avenue / Martin Luther King Way
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.964
Loss Time (sec):    12 (Y+R =  5 sec) Average Delay (sec/veh):    30.1
Optimal Cycle:     106          Level Of Service:                 C
********************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:      Prot+Permit      Permitted        Permitted       Permitted
Rights:         Include          Include          Include         Include
Min. Green:   5   23   23    23   23   23    17   17   17    17   17   17
Lanes:        1  0  1  1 0    1  0  1  1 0    1  0  1  1 0    1  0  1  1 0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    178  568   80    57  833   87    81  703  185    41  477   47
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 178  568   80    57  833   87    81  703  185    41  477   47
Added Vol:     2    1    1     0    0    0     0   69    0     0    7    0
Future:       70    0    0     0  230   30    10  130   20    20  160   80
Initial Fut: 250  569   81    57 1063  117    91  902  205    61  644  127
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  250  569   81    57 1063  117    91  902  205    61  644  127
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 250  569   81    57 1063  117    91  902  205    61  644  127
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  250  569   81    57 1063  117    91  902  205    61  644  127
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.39 0.93 0.93  0.37 0.94 0.94  0.20 0.92 0.92  0.19 0.93 0.93
Lanes:      1.00 1.75 0.25  1.00 1.80 0.20  1.00 1.63 0.37  1.00 1.67 0.33
Final Sat.:  750 3100  441   703 3203  353   386 2859  650   365 2940  580
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.33 0.18 0.18  0.08 0.33 0.33  0.24 0.32 0.32  0.17 0.22 0.22
Crit Moves: ****              ****              ****
Green/Cycle: 0.49 0.49 0.49  0.35 0.35 0.35  0.32 0.32 0.32  0.32 0.32 0.32
Volume/Cap: 0.67 0.37 0.37  0.23 0.94 0.94  0.74 0.98 0.98  0.52 0.68 0.68
Delay/Veh:  22.1  8.5  8.5  16.0 33.4 33.4  51.6 45.1 45.1  33.6 22.6 22.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 22.1  8.5  8.5  16.0 33.4 33.4  51.6 45.1 45.1  33.6 22.6 22.6
DesignQueue:   8   11    2     1   27    3     2   24    5     2   17    3
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #23 University Avenue / Milvia Street
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.566
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    12.5
Optimal Cycle:      49          Level Of Service:                 B
********************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted       Permitted        Permitted       Permitted
Rights:         Include          Include          Include         Include
Min. Green:  21   21   21    21   21   21    20   20   20    20   20   20
Lanes:        1  0  0  1 0    0  0  1!0 0    0  1  0  1 0    0  1  0  1 0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    100   98   21     6  203   63    37  656  137    18  406   15
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 100   98   21     6  203   63    37  656  137    18  406   15
Added Vol:     0    0    0     0    0    0     0   69    0     0    7    0
Future:       10   10   10    10   10   10    20   80   20    20  240   20
Initial Fut: 110  108   31    16  213   73    57  805  157    38  653   35
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  110  108   31    16  213   73    57  805  157    38  653   35
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 110  108   31    16  213   73    57  805  157    38  653   35
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  110  108   31    16  213   73    57  805  157    38  653   35
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.73 0.97 0.97  0.95 0.95 0.95  0.81 0.81 0.81  0.82 0.82 0.82
Lanes:      1.00 0.78 0.22  0.05 0.71 0.24  0.11 1.58 0.31  0.10 1.80 0.10
Final Sat.: 1391 1428  410    96 1276  437   173 2446  477   163 2808  151
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.08 0.08 0.08  0.17 0.17 0.17  0.33 0.33 0.33  0.23 0.23 0.23
Crit Moves:                   ****              ****
Green/Cycle: 0.32 0.32 0.32  0.32 0.32 0.32  0.55 0.55 0.55  0.55 0.55 0.55
Volume/Cap: 0.24 0.23 0.23  0.52 0.52 0.52  0.59 0.59 0.59  0.42 0.42 0.42
Delay/Veh:  17.5 17.0 17.0  21.1 21.1 21.1  11.2 11.2 11.2   9.2  9.2  9.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 17.5 17.0 17.0  21.1 21.1 21.1  11.2 11.2 11.2   9.2  9.2  9.2
DesignQueue:   3    3    1     0    5    2     1   14    3     1   11    1
********************************************************************************
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-------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                           2020 No Project Conditions
                                 AM Peak Hour
-------------------------------------------------------------------------------
                       Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #24 University Avenue / SB Shattuck Avenue
*******************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):          0.553
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    21.5
Optimal Cycle:       40          Level Of Service:                  C
*******************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0   16   16   16   16   16   16   16   16   16
Lanes:         0    0    0  0   0    1    1    1  0   1    0    1    1  0   0    1    0    1    1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0   49  767  105  115  401  162   26  356  314
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0   49  767  105  115  401  162   26  356  314
Added Vol:     0    0    0    0    6    0    1   69    0    0    7    0
Future:        0    0    0   10  120   60   20   50   10   10  200   90
Initial Fut:   0    0    0   59  893  165  136  520  172   36  563  404
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0    0    0   59  893  165  136  520  172   36  563  404
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0    0    0   59  893  165  136  520  172   36  563  404
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0    0    0   59  893  165  136  520  172   36  563  404
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.78 0.78 0.78 0.32 0.82 0.82 0.72 0.72 0.72
Lanes:      0.00 0.00 0.00 0.16 2.40 0.44 1.00 1.50 0.50 0.11 1.68 1.21
Final Sat.:    0    0    0  236 3570  660  609 2351  778  147 2307 1655
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.25 0.25 0.25 0.22 0.22 0.22 0.24 0.24 0.24
Crit Moves:                 ****                               ****
Green/Cycle: 0.00 0.00 0.00 0.36 0.36 0.36 0.30 0.30 0.30 0.00 0.53 0.53
Volume/Cap: 0.00 0.00 0.00 0.69 0.69 0.69 0.74 0.74 0.74 xxxx 0.46 0.46
Delay/Veh:   0.0  0.0  0.0 23.0 23.0 23.0 47.5 28.7 28.7  0.0 11.7 11.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 23.0 23.0 23.0 47.5 28.7 28.7  0.0 11.7 11.7
DesignQueue:   0    0    0    2   25    5    4   16    5    2   12    8
*******************************************************************************
```

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-------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                           2020 No Project Conditions
                                 AM Peak Hour
-------------------------------------------------------------------------------
                       Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #25 University Avenue / NB Shattuck Avenue
*******************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):          0.402
Loss Time (sec):     15 (Y+R =  4 sec) Average Delay (sec/veh):    16.3
Optimal Cycle:       47          Level Of Service:                  B
*******************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:   19    0   19    0    0    0    0   13    0    0   13    0
Lanes:         2    0   1!   0    1  0   0    0    0    0  0   0    2    0    0  0   0    2    0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    458    0  168    0    0    0    0  444    0    0  235    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 458    0  168    0    0    0    0  444    0    0  235    0
Added Vol:     3    0   18    0    0    0    0   69    0    0    4    0
Future:      220    0   20    0    0    0    0    0    0    0   80    0
Initial Fut: 681    0  206    0    0    0    0  513    0    0  319    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  681    0  206    0    0    0    0  513    0    0  319    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 681    0  206    0    0    0    0  513    0    0  319    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  681    0  206    0    0    0    0  513    0    0  319    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 1.00 0.84 1.00 1.00 1.00 1.00 0.86 1.00 1.00 0.86 1.00
Lanes:      2.69 0.00 1.31 0.00 0.00 0.00 0.00 2.00 0.00 0.00 2.00 0.00
Final Sat.: 4153    0 2075    0    0    0    0 3249    0    0 3249    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.00 0.10 0.00 0.00 0.00 0.00 0.16 0.00 0.00 0.10 0.00
Crit Moves: ****                               ****             ****
Green/Cycle: 0.41 0.00 0.41 0.00 0.00 0.00 0.00 0.39 0.00 0.00 0.39 0.00
Volume/Cap: 0.40 0.00 0.24 0.00 0.00 0.00 0.00 0.40 0.00 0.00 0.25 0.00
Delay/Veh:  16.3  0.0 14.8  0.0  0.0  0.0  0.0 17.4  0.0  0.0 15.8  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.3  0.0 14.8  0.0  0.0  0.0  0.0 17.4  0.0  0.0 15.8  0.0
DesignQueue:  17    0    5    0    0    0    0   13    0    0    8    0
*******************************************************************************
```

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-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                              AM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #26 University Avenue / Oxford Street
*******************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.856
Loss Time (sec):     12 (Y+R = 4 sec) Average Delay (sec/veh):     29.0
Optimal Cycle:       78          Level Of Service:                   C
*******************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Prot+Permit       Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:    5   18   18     5   18   18    18   18   18    18   18   18
Lanes:         1   0    1  1  0   1  0    1  1  0   1  1  0    0  1   0   0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     147  487    4    41 1101   77   300   38  217     6   12   23
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  147  487    4    41 1101   77   300   38  217     6   12   23
Added Vol:      0    0    0     0    1    4    55    0   32     0    0    0
Future:        50   90    0    10   80   30    20   10   20     0   10   10
Initial Fut:  197  577    4    51 1182  111   375   48  269     6   22   33
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   197  577    4    51 1182  111   375   48  269     6   22   33
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  197  577    4    51 1182  111   375   48  269     6   22   33
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   197  577    4    51 1182  111   375   48  269     6   22   33
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.86 0.85 0.85  0.35 0.84 0.84  0.64 0.64 0.64  0.77 0.82 0.82 0.82
Lanes:       1.00 1.99 0.01  1.00 1.83 0.17  1.77 0.23      0.10 0.36 0.54
Final Sat.:  1625 3223   22   663 2931  275  2165  277 1454   153  561  842
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.12 0.18 0.18  0.08 0.40 0.40  0.17 0.17 0.19  0.04 0.04 0.04
Crit Moves:  ****            ****            ****
Green/Cycle: 0.41 0.41 0.41  0.41 0.41 0.41  0.30 0.30 0.30  0.30 0.30 0.30
Volume/Cap:  0.30 0.44 0.44  0.19 0.99 0.99  0.58 0.58 0.62  0.13 0.13 0.13
Delay/Veh:   14.1 14.9 14.9  13.9 41.5 41.5  22.6 22.6 26.0  17.2 17.2 17.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  14.1 14.9 14.9  13.9 41.5 41.5  22.6 22.6 26.0  17.2 17.2 17.2
DesignQueue:    4   13    0     1   28    3    10    1    7     0    1    1
*******************************************************************************
```

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-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                              AM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
*******************************************************************************
Intersection #27 Univeristy Drive (East Gate)  / Gayley Road
*******************************************************************************
Average Delay (sec/veh):      2.7       Worst Case Level Of Service:      E
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        1  0  1  0  0    0  0  0  1  0    1  0  0  0  1    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:      69  476    0     0  543   75    53    0   73     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   69  476    0     0  543   75    53    0   73     0    0    0
Added Vol:      0   46    0     0   57    0     0    0    0     0    0    0
Future:        20   70    0     0  110   10    10    0   20     0    0    0
Initial Fut:   89  592    0     0  710   85    63    0   93     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    89  592    0     0  710   85    63    0   93     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    89  592    0     0  710   85    63    0   93     0    0    0
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 795 xxxx xxxxx  xxxx xxxx xxxxx  1523 xxxx   753  xxxx xxxx xxxxx
Potent Cap.: 835 xxxx xxxxx  xxxx xxxx xxxxx   132 xxxx   413  xxxx xxxx xxxxx
Move Cap.:   835 xxxx xxxxx  xxxx xxxx xxxxx   121 xxxx   413  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 9.8 xxxx xxxxx xxxxx xxxx xxxxx  63.4 xxxx  16.2 xxxxx xxxx xxxxx
LOS by Move:  A    *     *     *     *     *    F    *     C     *    *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx    0 xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS:   *    *     *     *     *     *     *    *     *     *    *     *
ApproachDel:   xxxxxx          xxxxxx           35.3          xxxxxx
ApproachLOS:       *               *              E              *
```

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CUMULATIVE + LAB AM       Thu Mar 18, 2004 11:38:09        Page 34-1        CUMULATIVE + LAB AM       Thu Mar 18, 2004 11:38:09        Page 35-1
-------------------------------------------------------------------------     -------------------------------------------------------------------------
                         UC Berkeley LRDP EIR                                                          UC Berkeley LRDP EIR
                      2020 No Project Conditions                                                    2020 No Project Conditions
                            AM Peak Hour                                                                  AM Peak Hour
-------------------------------------------------------------------------     -------------------------------------------------------------------------
                 Level Of Service Computation Report                                          Level Of Service Computation Report
            2000 HCM Unsignalized Method (Future Volume Alternative)               2000 HCM Operations Method (Future Volume Alternative)
***********************************************************************         **********************************************************************
Intersection #28 Addison Street / Oxford Street                               Intersection #29 Center Street / SB Shattuck Avenue
***********************************************************************         **********************************************************************
Average Delay (sec/veh):      0.4      Worst Case Level Of Service:     B      Cycle (sec):          65        Critical Vol./Cap. (X):        0.428
***********************************************************************         Loss Time (sec):      12 (Y+R =  9 sec) Average Delay (sec/veh):    15.7
Approach:        North Bound     South Bound     East Bound     West Bound     Optimal Cycle:        65                Level Of Service:          B
Movement:     L - T - R      L - T - R      L - T - R      L - T - R           **********************************************************************
-----------|---------------||---------------||---------------||---------------|   Approach:        North Bound     South Bound     East Bound     West Bound
Control:      Uncontrolled     Uncontrolled     Stop Sign       Stop Sign        Movement:     L - T - R      L - T - R      L - T - R      L - T - R
Rights:          Include          Include          Include         Include       -----------|---------------||---------------||---------------||---------------|
Lanes:       1 0 2 0 0      0 0 1 1 0      0 0 1! 0 0     0 0 0 0 0             Control:       Permitted       Permitted       Permitted       Permitted
-----------|---------------||---------------||---------------||---------------|   Rights:          Include          Include          Include         Include
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM                 Min. Green:    0    0    0     20   20   20     0   22   22    33   33    0
Base Vol:      54  647    0      0 1165   61      4    0   31      0    0    0     Lanes:       0 0 0 0 0      0 1 1 1 0      0 0 0 1 0      0 1 0 0 0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00     -----------|---------------||---------------||---------------||---------------|
Initial Bse:   54  647    0      0 1165   61      4    0   31      0    0    0     Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Added Vol:      0    0    0      0   32    0      0    0    0      0    0    0     Base Vol:      0    0    0     15  779   71     0   69   51    17  102    0
Future:        20  140    0      0   90   10      0    0   10      0    0    0     Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Fut:   74  787    0      0 1287   71      4    0   41      0    0    0     Initial Bse:   0    0    0     15  779   71     0   69   51    17  102    0
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00     Added Vol:     0    0    0      0    6    0     0    0    0     0    0    0
PHF Adj:    0.91 0.91 0.91   0.91 0.91 0.91   0.91 0.91 0.91   0.91 0.91 0.91     Future:        0    0    0      0  130   20     0   50   30    30   40    0
PHF Volume:    81  865    0      0 1414   78      4    0   45      0    0    0     Initial Fut:   0    0    0     15  915   91     0  119   81    47  142    0
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0     User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    81  865    0      0 1414   78      4    0   45      0    0    0     PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Critical Gap Module:                                                          PHF Volume:    0    0    0     15  915   91     0  119   81    47  142    0
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8 xxxx   6.9 xxxxx xxxx xxxxx   Reduct Vol:    0    0    0      0    0    0     0    0    0     0    0    0
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx   Reduced Vol:   0    0    0     15  915   91     0  119   81    47  142    0
-----------|---------------||---------------||---------------||---------------|   PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Capacity Module:                                                              MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Cnflct Vol: 905 xxxx xxxxx  xxxx xxxxx xxxxx 1675 xxxx    0 xxxx xxxx xxxxx       Final Vol.:    0    0    0     15  915   91     0  119   81    47  142    0
Potent Cap.: 540 xxxx xxxxx  xxxx xxxx xxxxx   62 xxxx    0 xxxx xxxx xxxxx       -----------|---------------||---------------||---------------||---------------|
Move Cap.:  540 xxxx xxxxx  xxxx xxxx xxxxx   55 xxxx    0 xxxx xxxx xxxxx       Saturation Flow Module:
-----------|---------------||---------------||---------------||---------------|   Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Level Of Service Module:                                                      Adjustment: 1.00 1.00 1.00   0.80 0.80 0.80   1.00 0.85 0.85   0.80 0.80 1.00
Stopped Del: 12.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   Lanes:      0.00 0.00 0.00   0.04 2.69 0.27   0.00 0.59 0.41   0.25 0.75 0.00
LOS by Move:  B    *    *      *    *    *      *    *    *      *    *    *       Final Sat.:    0    0    0     67 4076  405     0  961  654   377 1140    0
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT     -----------|---------------||---------------||---------------||---------------|
Shared Cap.: xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  622 xxxxx xxxxx xxxx xxxxx   Capacity Analysis Module:
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.3 xxxxx xxxxx xxxx xxxxx   Vol/Sat:    0.00 0.00 0.00   0.22 0.22 0.22   0.00 0.12 0.12   0.12 0.12 0.00
Shared LOS:   *    *    *      *    *    *      *    B    *      *    *    *       Crit Moves:                      ****                              ****
ApproachDel:    xxxxxx         xxxxxx           11.3           xxxxxx             Green/Cycle: 0.00 0.00 0.00  0.31 0.31 0.31  0.00 0.34 0.34  0.51 0.51 0.00
ApproachLOS:      *              *               B               *               Volume/Cap: 0.00 0.00 0.00  0.73 0.73 0.73  0.00 0.37 0.37  0.25 0.25 0.00
                                                                              Delay/Veh:   0.0  0.0   0.0  17.5 17.5 17.5   0.0 18.1 18.1   3.6  3.6  0.0
                                                                              User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
                                                                              AdjDel/Veh:  0.0  0.0   0.0  17.5 17.5 17.5   0.0 18.1 18.1   3.6  3.6  0.0
                                                                              DesignQueue:  0    0    0     0   24    2     0    3    2     1    3    0
                                                                              **********************************************************************




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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #30 Center Street / NB Shattuck Avenue
********************************************************************************
Cycle (sec):        65        Critical Vol./Cap. (X):        0.378
Loss Time (sec):     8 (Y+R =  9 sec) Average Delay (sec/veh):    5.4
Optimal Cycle:      60        Level Of Service:               A
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  30   30   30     0    0    0    22   22    0     0   22   22
Lanes:        0    1    1 0    0    0    0 0    0    1    0 0    0    0    1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    42  616   51     0    0    0    26   56    0     0   77   26
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 42  616   51     0    0    0    26   56    0     0   77   26
Added Vol:    0   21    0     0    0    0     0    0    0     0    0    0
Future:      30  200   60     0    0    0    10   40    0     0   40   30
Initial Fut: 72  837  111     0    0    0    36   96    0     0  117   56
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  72  837  111     0    0    0    36   96    0     0  117   56
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 72  837  111     0    0    0    36   96    0     0  117   56
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  72  837  111     0    0    0    36   96    0     0  117   56
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.79 0.79 1.00 1.00 1.00 0.79 0.79 1.00 1.00 0.86 0.86
Lanes:      0.21 2.46 0.33 0.00 0.00 0.00 0.27 0.73 0.00 0.00 0.68 0.32
Final Sat.: 319 3709  492     0    0    0   411 1096    0     0 1106  529
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.23 0.23 0.23 0.00 0.00 0.00 0.09 0.09 0.00 0.00 0.11 0.11
Crit Moves:      ****                                          ****
Green/Cycle: 0.54 0.54 0.54 0.00 0.00 0.00 0.34 0.34 0.00 0.00 0.34 0.34
Volume/Cap: 0.42 0.42 0.42 0.00 0.00 0.00 0.26 0.26 0.00 0.00 0.31 0.31
Delay/Veh:   2.5  2.5  2.5  0.0  0.0  0.0 11.5 11.5  0.0  0.0 17.4 17.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  2.5  2.5  2.5  0.0  0.0  0.0 11.5 11.5  0.0  0.0 17.4 17.4
DesignQueue:  1   15    2     0    0    0     1    2    0     0    3    1
********************************************************************************
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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #31 Center Street / Oxford Street
********************************************************************************
Cycle (sec):        65        Critical Vol./Cap. (X):        0.609
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   11.5
Optimal Cycle:      46        Level Of Service:               B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  19   19   19    19   19   19    19   19   19    19   19   19
Lanes:        1    0    1 1 0  1    0    1 1 0  0    0   1! 0 0  0    0   1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    50  663   42    11 1145   39    26   10   43    19    6    8
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 50  663   42    11 1145   39    26   10   43    19    6    8
Added Vol:    0    0    0     0   32    0     0    0    0     0    0    0
Future:      30   90   10     0   70   30    60    0   30     0    0    0
Initial Fut: 80  753   52    11 1247   69    86   10   73    19    6    8
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  80  753   52    11 1247   69    86   10   73    19    6    8
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 80  753   52    11 1247   69    86   10   73    19    6    8
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  80  753   52    11 1247   69    86   10   73    19    6    8
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.15 0.85 0.85 0.30 0.85 0.85 0.71 0.71 0.71 0.74 0.74 0.74
Lanes:      1.00 1.87 0.13 1.00 1.90 0.10 0.51 0.06 0.43 0.58 0.18 0.24
Final Sat.: 289 3009  208   571 3054  169   684   79  580   804  254  339
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.28 0.25 0.25 0.02 0.41 0.41 0.13 0.13 0.13 0.02 0.02 0.02
Crit Moves:           ****            ****
Green/Cycle: 0.58 0.58 0.58 0.58 0.58 0.58 0.29 0.29 0.29 0.29 0.29 0.29
Volume/Cap: 0.47 0.43 0.43 0.03 0.70 0.70 0.43 0.43 0.43 0.08 0.08 0.08
Delay/Veh:  17.0  8.2  8.2  5.9 11.7 11.7 22.0 22.0 22.0 17.1 17.1 17.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.0  8.2  8.2  5.9 11.7 11.7 22.0 22.0 22.0 17.1 17.1 17.1
DesignQueue:  1   12    1     0   21    1     2    0    2     0    0    0
********************************************************************************
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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #32 Stadium Rim Road / Gayley Road
********************************************************************************
Cycle (sec):         100        Critical Vol./Cap. (X):          1.158
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    66.0
Optimal Cycle:         0        Level Of Service:                   F
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0    0    0 1 0   0  1  0  0 0   0  0 1! 0 0   0  0 1! 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  386   19   128  471    0    12    5   14    18    1  118
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  386   19   128  471    0    12    5   14    18    1  118
Added Vol:     0   43   16    19   38    0     0    0    0     8    0    3
Future:        0   60   10    20  100    0     0    0    0    10    0   20
Initial Fut:   0  489   45   167  609    0    12    5   14    36    1  141
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0  489   45   167  609    0    12    5   14    36    1  141
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0  489   45   167  609    0    12    5   14    36    1  141
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  489   45   167  609    0    12    5   14    36    1  141
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.92 0.08  0.22 0.78 0.00  0.39 0.16 0.45  0.20 0.01 0.79
Final Sat.:    0  601   55   144  526    0   183   76  213   110    3  432
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx 0.81 0.81  1.16 1.16 xxxx  0.07 0.07 0.07  0.33 0.33 0.33
Crit Moves:      ****           ****           ****           ****
Delay/Veh:   0.0 27.3 27.3 107.1  107  0.0  10.5 10.5 10.5  12.2 12.2 12.2
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 27.3 27.3 107.1  107  0.0  10.5 10.5 10.5  12.2 12.2 12.2
LOS by Move:   *    D    D     F    F    *     B    B    B     B    B    B
ApproachDel:      27.3           107.1           10.5           12.2
Delay Adj:        1.00            1.00            1.00            1.00
ApprAdjDel:       27.3           107.1           10.5           12.2
LOS by Appr:       D               F               B               B
********************************************************************************
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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #33 Allston Way / Oxford Street
********************************************************************************
Average Delay (sec/veh):      4.8        Worst Case Level Of Service:      D
********************************************************************************
Approach:    North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:     Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Lanes:       0  1  1  0  0    0  1  0  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    17  798    0    59 1111   34    16    0   33     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 17  798    0    59 1111   34    16    0   33     0    0    0
Added Vol:    0    0    0     0   32    0     0    0    0     0    0    0
Future:      10  130    0    10   80   10     0    0   30     0    0    0
Initial Fut: 27  928    0    69 1223   44    16    0   63     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:  29  998    0    74 1315   47    17    0   68     0    0    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:  29  998    0    74 1315   47    17    0   68     0    0    0
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx  4.1 xxxx xxxxx  6.8 xxxx  6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx  2.2 xxxx xxxxx  3.5 xxxx  3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1069 xxxx xxxxx  998 xxxx xxxxx 1878 xxxx  269 xxxx xxxx xxxxx
Potent Cap.: 562 xxxx xxxxx   702 xxxx xxxxx   55 xxxx  626 xxxx xxxx xxxxx
Move Cap.:   562 xxxx xxxxx   702 xxxx xxxxx   48 xxxx  626 xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 11.8 xxxx xxxxx 10.7 xxxx xxxxx 116.5 xxxx 11.4 xxxxx xxxx xxxxx
LOS by Move:  B    *    *     B    *    *     F    *    B     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel: 11.8 xxxx xxxxx 10.7 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   B    *    *     B    *    *      *    *    *      *    *    *
ApproachDel:    xxxxxx          xxxxxx           32.7            xxxxxx
ApproachLOS:      *               *               D               *
********************************************************************************
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CUMULATIVE + LAB AM        Thu Mar 18, 2004 11:38:09          Page 40-1     CUMULATIVE + LAB AM        Thu Mar 18, 2004 11:38:09          Page 41-1
-----------------------------------------------------------------------     -----------------------------------------------------------------------
                         UC Berkeley LRDP EIR                                                        UC Berkeley LRDP EIR
                       2020 No Project Conditions                                                  2020 No Project Conditions
                             AM Peak Hour                                                                AM Peak Hour
-----------------------------------------------------------------------     -----------------------------------------------------------------------
                   Level Of Service Computation Report                                         Level Of Service Computation Report
         2000 HCM Unsignalized Method (Future Volume Alternative)                      2000 HCM 4-Way Stop Method (Future Volume Alternative)
***********************************************************************     ***********************************************************************
Intersection #34 Kittridge Street / Oxford Street / Fulton Street           Intersection #35 Stadium Rim Road / Centennial Drive
***********************************************************************     ***********************************************************************
Average Delay (sec/veh):    2.5      Worst Case Level Of Service:     C     Cycle (sec):        100           Critical Vol./Cap. (X):       0.333
***********************************************************************     Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):     9.5
Approach:    North Bound     South Bound     East Bound     West Bound     Optimal Cycle:        0                Level Of Service:          A
Movement:    L - T - R       L - T - R       L - T - R      L - T - R      ***********************************************************************
------------|---------------||---------------||---------------||---------------|   Approach:    North Bound     South Bound     East Bound     West Bound
Control:    Uncontrolled     Uncontrolled     Stop Sign       Stop Sign     Movement:    L - T - R       L - T - R       L - T - R      L - T - R
Rights:       Include          Include          Include         Include     ------------|---------------||---------------||---------------||---------------|
Lanes:      0  1  1  0  0   0  0  1  1  0   0  0  1! 0  0   0  0  0  0  0     Control:      Stop Sign       Stop Sign       Stop Sign       Stop Sign
------------|---------------||---------------||---------------||---------------|   Rights:        Include          Include         Include         Include
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM               Min. Green:   0  0  0    0  0  0    0  0  0    0  0  0
Base Vol:   13  801   0    0 1122  18    6   0   23    0   0    0             Lanes:      0  0  0  1  0   0  1  0  0  0   0  0  0  0  0   0  0  1! 0  0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     ------------|---------------||---------------||---------------||---------------|
Initial Bse: 13 801   0    0 1122  18    6   0   23    0   0    0            Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Added Vol:   0   0    0    0  32    0    0   0    0    0   0    0            Base Vol:    0  70  160   94  22   0    0   0   0  114   0   71
Future:      0  120   0    0  70   30   10   0   10    0   0    0            Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Fut: 13 921   0    0 1224  48   16   0   33    0   0    0            Initial Bse: 0  70  160   94  22   0    0   0   0  114   0   71
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     Added Vol:   0   0   0    35   0   0    0   0   0    0   0   11
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     Future:      0  20  20    20  10   0    0   0   0   20   0   10
PHF Volume:  13 921   0    0 1224  48   16   0   33    0   0    0            Initial Fut: 0  90  180  149  32   0    0   0   0  134   0   92
Reduct Vol:  0   0    0    0   0    0    0   0    0    0   0    0            User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  13 921   0    0 1224  48   16   0   33    0   0    0            PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Critical Gap Module:                                                        PHF Volume:  0  90  180  149  32   0    0   0   0  134   0   92
Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8 xxxx   6.9 xxxxx xxxx xxxxx     Reduct Vol:  0   0   0    0   0   0    0   0   0    0   0    0
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx     Reduced Vol: 0  90  180  149  32   0    0   0   0  134   0   92
------------|---------------||---------------||---------------||---------------|   PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Capacity Module:                                                            MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Cnflict Vol: 817 xxxx xxxxx  xxxx xxxx xxxxx  1411 xxxx   19 xxxxx xxxx xxxxx     Final Vol.:  0  90  180  149  32   0    0   0   0  134   0   92
Potent Cap.: 653 xxxx xxxxx  xxxx xxxx xxxxx   105 xxxx  845 xxxxx xxxx xxxxx     ------------|---------------||---------------||---------------||---------------|
Move Cap.:   653 xxxx xxxxx  xxxx xxxx xxxxx   103 xxxx  845 xxxxx xxxx xxxxx     Saturation Flow Module:
------------|---------------||---------------||---------------||---------------|   Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Level Of Service Module:                                                    Lanes:      0.00 0.33 0.67 0.82 0.18 0.00 0.00 0.00 0.00 0.59 0.00 0.41
Stopped Del: 10.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx     Final Sat.:  0  270 540  580 125   0    0   0   0  425   0  292
LOS by Move:  B    *     *     *     *    *     *    *     *    *    *       ------------|---------------||---------------||---------------||---------------|
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT     Capacity Analysis Module:
Shared Cap.: xxxx xxxxx xxxxx  xxxx xxxx xxxxx  xxxx  252 xxxxx xxxxx xxxx xxxxx     Vol/Sat:    xxxx 0.33 0.33 0.26 0.26 xxxx  xxxx xxxx xxxx  0.32 xxxx 0.32
Shrd StpDel: 10.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 22.7 xxxxx xxxxx xxxx xxxxx     Crit Moves:       ****        ****                              ****
Shared LOS:   B    *     *     *    *     *    *    C     *    *    *       Delay/Veh:   0.0 9.3 9.3  9.5 9.5 0.0  0.0 0.0 0.0  9.7 0.0 9.7
ApproachDel:   xxxxxx          xxxxxx          22.7          xxxxxx          Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApproachLOS:     *               *              C             *             AdjDel/Veh:  0.0 9.3 9.3  9.5 9.5 0.0  0.0 0.0 0.0  9.7 0.0 9.7
                                                                            LOS by Move: *   A   A    A   A   *    *   *   *    A   *   A
                                                                            ApproachDel:    9.3             9.5           xxxxxx          9.7
                                                                            Delay Adj:      1.00            1.00          xxxxx           1.00
                                                                            ApprAdjDel:     9.3             9.5           xxxxxx          9.7
                                                                            LOS by Appr:    A               A              *              A
                                                                            ***********************************************************************

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #36 Bancroft Way / Shattuck Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.562
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    10.0
Optimal Cycle:      42          Level Of Service:                 A
********************************************************************************
Approach:      North Bound     South Bound     East Bound     West Bound
Movement:      L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:           Include         Include         Include         Include
Min. Green:  18   18    0     0   18   18     0    0    0    16   16   16
Lanes:        1    0    2  0  0   0    0    1  1  0   0    0   1!0  0    1    0    0    1   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    29  912    0     0  788   12     1    0   62   116   51   71
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 29  912    0     0  788   12     1    0   62   116   51   71
Added Vol:    0   21    0     0    6    0     0    0    0     1    0    0
Future:      10  280    0     0  190   10     0    0    0    30   10   10
Initial Fut: 39 1213    0     0  984   22     1    0   62   147   61   81
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  39 1213    0     0  984   22     1    0   62   147   61   81
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 39 1213    0     0  984   22     1    0   62   147   61   81
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  39 1213    0     0  984   22     1    0   62   147   61   81
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.26 0.86 1.00  1.00 0.85 0.85  0.78 1.00 0.78  0.65 0.82 0.82
Lanes:      1.00 2.00 0.00  0.00 1.96 0.04  0.02 0.00 0.98  1.00 0.43 0.57
Final Sat.:  487 3249    0     0 3168   71    23    0 1453  1228  672  893
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.08 0.37 0.00  0.00 0.31 0.31  0.04 0.00 0.04  0.12 0.09 0.09
Crit Moves:      ****                                    ****
Green/Cycle:0.63 0.63 0.00  0.00 0.63 0.63  0.25 0.00 0.25  0.25 0.25 0.25
Volume/Cap: 0.13 0.59 0.00  0.00 0.49 0.49  0.17 0.00 0.17  0.49 0.37 0.37
Delay/Veh:   5.7  8.3  0.0   0.0  7.3  7.3  20.3  0.0 20.3  26.5 23.0 23.0
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  5.7  8.3  0.0   0.0  7.3  7.3  20.3  0.0 20.3  26.5 23.0 23.0
DesignQueue:  1   18    0     0   14    0     0    0    2     4    2    2
********************************************************************************
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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #37 Bancroft Way / Fulton Street
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.385
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     9.3
Optimal Cycle:      49          Level Of Service:                 A
********************************************************************************
Approach:      North Bound     South Bound     East Bound     West Bound
Movement:      L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:           Include         Include         Include         Ignore
Min. Green:  17   17    0     0   17   17     0    0    0    24   24   24
Lanes:        0    1    1  0  0   0    0    2  1  0   0    0   0    0   0    0    1   1    0    1
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    13  146    0     0 1071   79     0    0    0    84  173  650
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 13  146    0     0 1071   79     0    0    0    84  173  650
Added Vol:    0    0    0     0   32    1     0    0    0     0    0    0
Future:      10   10    0     0   60   10     0    0    0    10   20  110
Initial Fut: 23  156    0     0 1163   90     0    0    0    94  193  760
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Volume:  23  156    0     0 1163   90     0    0    0    94  193    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 23  156    0     0 1163   90     0    0    0    94  193    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
Final Vol.:  23  156    0     0 1163   90     0    0    0    94  193    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.78 0.78 1.00  1.00 0.90 0.90  1.00 1.00 1.00  0.81 0.81 1.00
Lanes:      0.26 1.74 0.00  0.00 2.78 0.22  0.00 0.00 0.00  0.66 1.34 1.00
Final Sat.:  380 2577    0     0 4761  368     0    0    0  1005 2063 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.06 0.06 0.00  0.00 0.24 0.24  0.00 0.00 0.00  0.09 0.09 0.00
Crit Moves:                      ****                            ****
Green/Cycle:0.51 0.51 0.00  0.00 0.51 0.51  0.00 0.00 0.00  0.37 0.37 0.00
Volume/Cap: 0.12 0.12 0.00  0.00 0.48 0.48  0.00 0.00 0.00  0.25 0.25 0.00
Delay/Veh:   6.5  6.5  0.0   0.0  8.5  8.5   0.0  0.0  0.0  14.8 14.8  0.0
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  6.5  6.5  0.0   0.0  8.5  8.5   0.0  0.0  0.0  14.8 14.8  0.0
DesignQueue:  0    3    0     0   22    2     0    0    0     2    4    0
********************************************************************************
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--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                          2020 No Project Conditions

                               AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #38 Bancroft Way / Ellsworth Street
********************************************************************************
Average Delay (sec/veh):      3.0        Worst Case Level Of Service:      C
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:        1  1  0  0  0    0  0  0  0  1    0  0  0  0  0    0  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     241   60    0    0    0   11    0    0    0    0  674   39
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  241   60    0    0    0   11    0    0    0    0  674   39
Added Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Future:        10    0    0    0    0    0    0    0    0    0  130    0
Initial Fut:  251   60    0    0    0   11    0    0    0    0  804   39
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   251   60    0    0    0   11    0    0    0    0  804   39
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:   251   60    0    0    0   11    0    0    0    0  804   39
Critical Gap Module:
Critical Gp:  7.1  6.5 xxxxx xxxxx xxxx  6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0 xxxxx xxxxx xxxx  3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  402  843 xxxxx  xxxx xxxx  422  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  562  303 xxxxx  xxxx xxxx  636  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    553  303 xxxxx  xxxx xxxx  636  xxxx xxxx xxxxx  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 13.4 xxxx xxxxx xxxxx xxxx 10.8 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   B    *    *     *    *    B    *    *    *    *    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.:  436 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel: 19.2 xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    C    *    *     *    *    *    *    *    *    *    *    *
ApproachDel:   16.9            10.8          xxxxxx           xxxxxx
ApproachLOS:    C               B              *                *




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CUMULATIVE + LAB AM        Thu Mar 18, 2004 11:38:09         Page 45-1
--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #39 Bancroft Way / Dana Street
********************************************************************************
Average Delay (sec/veh):      0.0        Worst Case Level Of Service:      A
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:        0  0  0  0  0    0  0  0  0  0    0  0  0  0  0    0  1  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:       0    0    0    0    0    0    0    0    0  145  721    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    0    0    0    0    0    0    0    0    0  145  721    0
Added Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Future:         0    0    0    0    0    0    0    0    0   50  130    0
Initial Fut:    0    0    0    0    0    0    0    0    0  195  851    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     0    0    0    0    0    0    0    0    0  195  851    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:     0    0    0    0    0    0    0    0    0  195  851    0
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx    0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx    0 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx    0 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  0.0 xxxx xxxxx
LOS by Move:   *    *    *     *    *    *    *    *    *    A    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  0.0 xxxx xxxxx
Shared LOS:    *    *    *     *    *    *    *    *    *    A    *    *
ApproachDel:   xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:     *               *                *                *




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--------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                                AM Peak Hour
--------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #40 Bancroft Way / Telegraph Avenue
**************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):         0.288
Loss Time (sec):      8 (Y+R = 23 sec) Average Delay (sec/veh):    21.5
Optimal Cycle:       46          Level Of Service:                   C
**************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:  15    0    0    0    0    0    0    0    0    0   23    0
Lanes:        2 0  0 0  0    0 0  0 0  0    0 0  0 0  0    0 0  3 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    427    0    0    0    0    0    0    0    0    0  460    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 427    0    0    0    0    0    0    0    0    0  460    0
Added Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Future:      100    0    0    0    0    0    0    0    0    0   70    0
Initial Fut: 527    0    0    0    0    0    0    0    0    0  530    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  527    0    0    0    0    0    0    0    0    0  530    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 527    0    0    0    0    0    0    0    0    0  530    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  527    0    0    0    0    0    0    0    0    0  530    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.91 1.00
Lanes:      2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.00 0.00
Final Sat.: 3502    0    0    0    0    0    0    0    0    0 5187    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.10 0.00
Crit Moves: ****                                            ****
Green/Cycle: 0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.35 0.00
Volume/Cap: 0.65 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.29 0.00
Delay/Veh:  27.5  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 15.5  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 27.5  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 15.5  0.0
DesignQueue:  15    0    0    0    0    0    0    0    0    0   13    0
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--------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                                AM Peak Hour
--------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Future Volume Alternative)
**************************************************************************
Intersection #41 Bancroft Way / Bowditch Street
**************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):         0.493
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):    12.1
Optimal Cycle:        0          Level Of Service:                   B
**************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        1 0  0 0  0    0 0  0 0  0    0 0  0 0  0    0 1  1 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    191    0    0    0    0    0    0    0    0   99  494    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 191    0    0    0    0    0    0    0    0   99  494    0
Added Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Future:       10    0    0    0    0    0    0    0    0   20   60    0
Initial Fut: 201    0    0    0    0    0    0    0    0  119  554    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  201    0    0    0    0    0    0    0    0  119  554    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 201    0    0    0    0    0    0    0    0  119  554    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  201    0    0    0    0    0    0    0    0  119  554    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.35 1.65 0.00
Final Sat.:  641    0    0    0    0    0    0    0    0  241 1148    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.31 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.49 0.48 xxxx
Crit Moves: ****                                            ****
Delay/Veh:  10.7  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 12.8 12.4  0.0
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.7  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 12.8 12.4  0.0
LOS by Move:   B    *    *    *    *    *    *    *    *    B    B    *
ApproachDel:      10.7             xxxxxx           xxxxxx          12.5
Delay Adj:        1.00             xxxxx            xxxxx           1.00
ApprAdjDel:       10.7             xxxxxx           xxxxxx          12.5
LOS by Appr:       B                 *                *              B
**************************************************************************
```

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                       2020 No Project Conditions
                            AM Peak Hour

                   Level Of Service Computation Report
           2000 HCM 4-Way Stop Method (Future Volume Alternative)
****
Intersection #42 Bancroft Way / College Avenue
****
Cycle (sec):   100   Critical Vol./Cap. (X):   0.488
Loss Time (sec):   0 (Y+R = 4 sec) Average Delay (sec/veh):   11.1
Optimal Cycle: 0   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Stop Sign   Stop Sign   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 1   0   0   0   0   0   0   0   0   0   0   1   1   0   0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 343   0   0   0   0   0   0   0   0   34 203   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 343   0   0   0   0   0   0   0   0   34 203   0
Added Vol: 0   0   0   0   0   0   0   0   0   1   0   0
Future: 10   0   0   0   0   0   0   0   0   20   60   0
Initial Fut: 353   0   0   0   0   0   0   0   0   55 263   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 353   0   0   0   0   0   0   0   0   55 263   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 353   0   0   0   0   0   0   0   0   55 263   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 353   0   0   0   0   0   0   0   0   55 263   0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.35 1.65 0.00
Final Sat.: 724   0   0   0   0   0   0   0   0 218 1062   0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.49 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.25 0.25 xxxx
Crit Moves: ****   ****
Delay/Veh: 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 10.0 9.8 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 10.0 9.8 0.0
LOS by Move: B   *   *   *   *   *   *   *   *   B   A   *
ApproachDel: 12.2   xxxxxx   xxxxxx   9.9
Delay Adj: 1.00   xxxxx   xxxxx   1.00
ApprAdjDel: 12.2   xxxxxx   xxxxxx   9.9
LOS by Appr: B   *   *   A
****

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                       2020 No Project Conditions
                            AM Peak Hour

                   Level Of Service Computation Report
           2000 HCM 4-Way Stop Method (Future Volume Alternative)
****
Intersection #43 Bancroft Way / Piedmont Avenue
****
Cycle (sec):   100   Critical Vol./Cap. (X):   1.026
Loss Time (sec):   0 (Y+R = 4 sec) Average Delay (sec/veh):   42.8
Optimal Cycle: 0   Level Of Service: E
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Stop Sign   Stop Sign   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 0   1   0   0   0   0   0   0   1   0   0   0   0   0   0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 131 553   0   0 344 123   0   0   0   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 131 553   0   0 344 123   0   0   0   0   0   0
Added Vol: 0   59   0   0   44   1   0   0   0   0   0   0
Future: 10   60   0   0   40   60   0   0   0   0   0   0
Initial Fut: 141 672   0   0 428 184   0   0   0   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 141 672   0   0 428 184   0   0   0   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 141 672   0   0 428 184   0   0   0   0   0   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 141 672   0   0 428 184   0   0   0   0   0   0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.17 0.83 0.00 0.00 0.70 0.30 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 137 655   0   0 558 240   0   0   0   0   0   0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 1.03 1.03 xxxx xxxx 0.77 0.77 xxxx xxxx xxxx xxxx xxxx xxxx
Crit Moves: ****   ****
Delay/Veh: 59.5 59.5 0.0 0.0 20.7 20.7 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 59.5 59.5 0.0 0.0 20.7 20.7 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: F   F   *   *   C   C   *   *   *   *   *   *
ApproachDel: 59.5   20.7   xxxxxx   xxxxxx
Delay Adj: 1.00   1.00   xxxxx   xxxxx
ApprAdjDel: 59.5   20.7   xxxxxx   xxxxxx
LOS by Appr: F   C   *   *
****

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                              AM Peak Hour
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```
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #44 Durant Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):       0.640
Loss Time (sec):    12 (Y+R =  5 sec) Average Delay (sec/veh):    15.7
Optimal Cycle:      53          Level Of Service:                B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Prot+Permit       Permitted        Permitted
Rights:         Include           Include           Include          Include
Min. Green:   19   19   19     5   19   19    17   17   17     0    0    0
Lanes:      1  0  1  1  0    1  0  1  1  0    0  1  0  1  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     55  943  136    67  886    8     9   70   35     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  55  943  136    67  886    8     9   70   35     0    0    0
Added Vol:     0   21    2     0    7    0     0    0    0     0    0    0
Future:       10   90   70    40  180   10   200   40    0     0    0    0
Initial Fut:  65 1054  208   107 1073   18   209  110   35     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   65 1054  208   107 1073   18   209  110   35     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  65 1054  208   107 1073   18   209  110   35     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   65 1054  208   107 1073   18   209  110   35     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.95 0.95  1.00 0.95 0.95  0.95 0.95 0.95  1.00 1.00 1.00
Lanes:      1.00 1.67 0.33  1.00 1.97 0.03  0.00 0.76 0.24  0.00 0.00 0.00
Final Sat.: 1900 3015  595  1900 3550   60  1805 1369  436     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.03 0.35 0.35  0.06 0.30 0.30  0.12 0.08 0.08  0.00 0.00 0.00
Crit Moves:      ****            ****            ****
Green/Cycle: 0.37 0.37 0.37  0.55 0.55 0.55  0.27 0.27 0.27  0.00 0.00 0.00
Volume/Cap: 0.09 0.95 0.95  0.10 0.55 0.55  0.43 0.30 0.30  0.00 0.00 0.00
Delay/Veh:   8.4 27.0 27.0   1.6  3.0  3.0  21.3 19.5 19.5   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  8.4 27.0 27.0   1.6  3.0  3.0  21.3 19.5 19.5   0.0  0.0  0.0
DesignQueue:   1   26    5     2   19    0     6    3    1     0    0    0
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                              AM Peak Hour
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```
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #45 Durant Avenue / Fulton Street
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):       0.389
Loss Time (sec):     8 (Y+R =  3 sec) Average Delay (sec/veh):     9.8
Optimal Cycle:      51          Level Of Service:                A
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted         Permitted        Permitted
Rights:         Include           Include           Include          Include
Min. Green:    0    0    0    21   21    0    22   22   22     0    0    0
Lanes:      0  0  0  0  0    1  1  1  0  0    1  0  1  1  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0   459  656    0   123  262   27     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0   459  656    0   123  262   27     0    0    0
Added Vol:     0    0    0     0   32    0     0    2    0     0    0    0
Future:        0    0    0    30   40    0    20   90   30     0    0    0
Initial Fut:   0    0    0   489  728    0   143  354   57     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0   489  728    0   143  354   57     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0    0   489  728    0   143  354   57     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0    0   489  728    0   143  354   57     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  0.95 0.95 1.00  0.98 0.93 0.93  1.00 1.00 1.00
Lanes:      0.00 0.00 0.00  1.21 1.79 0.00  1.00 1.72 0.28  0.00 0.00 0.00
Final Sat.:    0    0    0  2176 3239    0  1860 3044  490     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00  0.22 0.22 0.00  0.08 0.12 0.12  0.00 0.00 0.00
Crit Moves:                      ****            ****
Green/Cycle: 0.00 0.00 0.00  0.54 0.54 0.00  0.34 0.34 0.34  0.00 0.00 0.00

Volume/Cap: 0.00 0.00 0.00  0.42 0.42 0.00  0.23 0.34 0.34  0.00 0.00 0.00
Delay/Veh:   0.0  0.0  0.0   6.7  6.7  0.0  16.2 16.9 16.9   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0   6.7  6.7  0.0  16.2 16.9 16.9   0.0  0.0  0.0
DesignQueue:   0    0    0     9   13    0     3    9    1     0    0    0
********************************************************************************
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                           UC Berkeley LRDP EIR
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--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #46 Durant Avenue / Telegraph Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):         0.325
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    11.4
Optimal Cycle:      43          Level Of Service:                  B
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0   18   18    0    0    0   17   17    0    0    0    0
Lanes:        0  0  1  1  0  0  0  0  0  0  0  1  2  0  0  0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0  362   86    0    0    0   73  387    0    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  362   86    0    0    0   73  387    0    0    0    0
Added Vol:    0    0    0    0    0    0    0    2    0    0    0    0
Future:       0  110   40    0    0    0    0  130    0    0    0    0
Initial Fut:  0  472  126    0    0    0   73  519    0    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  472  126    0    0    0   73  519    0    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  472  126    0    0    0   73  519    0    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  472  126    0    0    0   73  519    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 1.00
Lanes:      0.00 1.58 0.42 0.00 0.00 0.00 0.37 2.63 0.00 0.00 0.00 0.00
Final Sat.:   0 2758  736    0    0    0  640 4547    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.17 0.17 0.00 0.00 0.00 0.11 0.11 0.00 0.00 0.00 0.00
Crit Moves:      ****                          ****
Green/Cycle: 0.00 0.53 0.53 0.00 0.00 0.00 0.35 0.35 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.33 0.33 0.00 0.00 0.00 0.33 0.33 0.00 0.00 0.00 0.00
Delay/Veh:   0.0  6.9  6.9  0.0  0.0  0.0 15.9 15.9  0.0  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  6.9  6.9  0.0  0.0  0.0 15.9 15.9  0.0  0.0  0.0  0.0
DesignQueue:  0    8    2    0    0    0    2   13    0    0    0    0
********************************************************************************
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                             AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #47 Durant Avenue / College Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):         0.408
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    12.5
Optimal Cycle:      42          Level Of Service:                  B
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0   18   18    0    0    0   16   16   16    0    0    0
Lanes:        0  0  0  1  0  0  1  0  0  0  1  0  1  1  0  0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0  213   66   13   23    0   64  228   87    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  213   66   13   23    0   64  228   87    0    0    0
Added Vol:    0    0   27    0    1    0    0    5    0    0    0    0
Future:       0   10   90    0   20    0   20   90   40    0    0    0
Initial Fut:  0  223  183   13   44    0   84  323  127    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  223  183   13   44    0   84  323  127    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  223  183   13   44    0   84  323  127    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  223  183   13   44    0   84  323  127    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.94 0.94 0.92 0.92 1.00 0.96 0.91 0.91 1.00 1.00 1.00
Lanes:      0.00 0.55 0.45 0.23 0.77 0.00 1.00 1.44 0.56 0.00 0.00 0.00
Final Sat.:   0  980  804  398 1348    0 1820 2482  976    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.23 0.23 0.03 0.03 0.00 0.05 0.13 0.13 0.00 0.00 0.00
Crit Moves:      ****                          ****
Green/Cycle: 0.00 0.56 0.56 0.56 0.56 0.00 0.32 0.32 0.32 0.00 0.00 0.00
Volume/Cap: 0.00 0.41 0.41 0.06 0.06 0.00 0.14 0.41 0.41 0.00 0.00 0.00
Delay/Veh:   0.0  6.7  6.7  6.7  6.7  0.0 15.9 17.9 17.9  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  6.7  6.7  6.7  6.7  0.0 15.9 17.9 17.9  0.0  0.0  0.0
DesignQueue:  0    4    3    0    1    0    2    8    3    0    0    0
********************************************************************************
```

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--------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM 4-Way Stop Method (Future Volume Alternative)
**************************************************************************
Intersection #48 Durant Avenue / Piedmont Avenue
**************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):        0.897
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):    26.2
Optimal Cycle:        0          Level Of Service:                D
**************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0  0  1  0  0    0  0  1  0  0    1  0  0  0  1    0  0  0  0  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0   489    0    0   345    0   158    0   86    0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0   489    0    0   345    0   158    0   86    0    0    0
Added Vol:    0    27    0    0    44    0    32    0    0    0    0    0
Future:       0    50    0    0    40    0    30    0   60    0    0    0
Initial Fut:  0   566    0    0   429    0   220    0  146    0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0   566    0    0   429    0   220    0  146    0    0    0
Reduct Vol:   0     0    0    0     0    0     0    0    0    0    0    0
Reduced Vol:  0   566    0    0   429    0   220    0  146    0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0   566    0    0   429    0   220    0  146    0    0    0
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 1.00 0.00  0.00 1.00 0.00  1.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:   0   631    0    0   603    0   471    0  557    0    0    0
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:   xxxx 0.90 xxxx  xxxx 0.71 xxxx  0.47 xxxx 0.26  xxxx xxxx xxxx
Crit Moves:      ****              ****         ****
Delay/Veh:   0.0 37.7  0.0   0.0 21.2  0.0  16.0  0.0 11.0   0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 37.7  0.0   0.0 21.2  0.0  16.0  0.0 11.0   0.0  0.0  0.0
LOS by Move:  *    E    *    *    C    *    *    C    *    B    *    *    *
ApproachDel:      37.7              21.2              14.0         xxxxxx
Delay Adj:        1.00              1.00              1.00         xxxxx
ApprAdjDel:       37.7              21.2              14.0         xxxxxx
LOS by Appr:       E                 C                 B              *
**************************************************************************
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--------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #49 Channing Way / Shattuck Avenue
**************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.590
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     6.1
Optimal Cycle:       46          Level Of Service:                A
**************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16   16   16   16   16   22   22   22   22   22   22
Lanes:        1  0  1  1  0    1  0  1  1  0    0  0  1! 0  0    0  0  1! 0  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    42  1070   96   19   868   19   12   59   42   62   28   39
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 42  1070   96   19   868   19   12   59   42   62   28   39
Added Vol:    0    20   44    0     7    0    0    0    0    3    0    3
Future:      20   130   20   40    90   70   30   40   20   30   10   10
Initial Fut: 62  1220  160   59   965   89   42   99   62   95   38   52
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  62  1220  160   59   965   89   42   99   62   95   38   52
Reduct Vol:   0     0    0    0     0    0    0    0    0    0    0    0
Reduced Vol: 62  1220  160   59   965   89   42   99   62   95   38   52
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  62  1220  160   59   965   89   42   99   62   95   38   52
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.27 0.93 0.93  0.17 0.94 0.94  0.88 0.88 0.88  0.76 0.76 0.76
Lanes:      1.00 1.77 0.23  1.00 1.83 0.17  0.21 0.49 0.30  0.51 0.21 0.28
Final Sat.:  513 3137  411   327 3262  301   345  812  509   741  296  405
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.12 0.39 0.39  0.18 0.30 0.30  0.12 0.12 0.12  0.13 0.13 0.13
Crit Moves:       ****                                          ****
Green/Cycle: 0.54 0.54 0.54  0.54 0.54 0.54  0.34 0.34 0.34  0.34 0.34 0.34
Volume/Cap: 0.22 0.72 0.72  0.34 0.55 0.55  0.36 0.36 0.36  0.38 0.38 0.38
Delay/Veh:   3.6  4.9  4.9   7.0  3.3  3.3  18.0 18.0 18.0  18.5 18.5 18.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  3.6  4.9  4.9   7.0  3.3  3.3  18.0 18.0 18.0  18.5 18.5 18.5
DesignQueue:  1   22    3    1    17    2    1    2    2    2    1    1
**************************************************************************
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--------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                        2020 No Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
**************************************************************************
Intersection #50 Channing Way / Fulton Street
**************************************************************************
Cycle (sec):          100        Critical Vol./Cap. (X):        0.603
Loss Time (sec):        0 (Y+R =  4 sec) Average Delay (sec/veh):   14.6
Optimal Cycle:          0        Level Of Service:                B
**************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:  0    0    0    0    0    0    0    0    0    0    0    0

Lanes:       0  0  0  0  0    0  1  0  1  0    0  0  0  1  0    0  1  0  0  0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    0    0    0   86  543   51    0  132   20    7   72    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0    0    0   86  543   51    0  132   20    7   72    0
Added Vol:   0    0    0   32    0    0    0   44    0    0    6    0
Future:      0    0    0    0   30    0    0   90    0   10   40    0
Initial Fut: 0    0    0  118  573   51    0  266   20   17  118    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  0    0    0  118  573   51    0  266   20   17  118    0
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 0    0    0  118  573   51    0  266   20   17  118    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  0    0    0  118  573   51    0  266   20   17  118    0
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.00 0.00 0.00 0.32 1.54 0.14 0.00 0.93 0.07 0.13 0.87 0.00
Final Sat.:  0    0    0  196  975   88    0  579   44   73  509    0
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:   xxxx xxxx xxxx 0.60 0.59 0.58 xxxx 0.46 0.46 0.23 0.23 xxxx
Crit Moves:               ****                ****           ****
Delay/Veh:   0.0  0.0  0.0 16.7 15.9 15.3  0.0 13.1 13.1 10.6 10.6  0.0
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 16.7 15.9 15.3  0.0 13.1 13.1 10.6 10.6  0.0
LOS by Move:  *    *    *    C    C    C    *    B    B    B    B    *
ApproachDel:    xxxxxx          16.0            13.1           10.6
Delay Adj:      xxxxx           1.00            1.00           1.00
ApprAdjDel:     xxxxxx          16.0            13.1           10.6
LOS by Appr:      *               C               B              B
**************************************************************************

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--------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                        2020 No Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #51 Channing Way / Telegraph Avenue
**************************************************************************
Cycle (sec):           65        Critical Vol./Cap. (X):        0.481
Loss Time (sec):        8 (Y+R =  4 sec) Average Delay (sec/veh):   12.0
Optimal Cycle:         43        Level Of Service:                B
**************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18    0    0    0   17   17    0    0   17   17
Lanes:       0  1  0  1  0    0  0  0  0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00-9:00 AM (WB thru adjusted due
Base Vol:   56  423   79    0    0    0   16  179    0    0   98    9
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 56  423   79    0    0    0   16  179    0    0   98    9
Added Vol:   0    0   68    0    0    0    0   75    0    0    6    0
Future:     10   40   30    0    0    0   60   30    0    0   30   50
Initial Fut: 66  463  177    0    0    0   76  284    0    0  134   59
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 66  463  177    0    0    0   76  284    0    0  134   59
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 66  463  177    0    0    0   76  284    0    0  134   59
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 66  463  177    0    0    0   76  284    0    0  134   59
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.88 0.88 0.88 1.00 1.00 1.00 0.90 0.90 1.00 1.00 0.96 0.96
Lanes:      0.19 1.31 0.50 0.00 0.00 0.00 0.21 0.79 0.00 0.00 0.69 0.31
Final Sat.: 312 2191  838    0    0    0  361 1349    0    0 1265  557
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:   0.21 0.21 0.21 0.00 0.00 0.00 0.21 0.21 0.00 0.00 0.11 0.11
Crit Moves:      ****                           ****
Green/Cycle: 0.44 0.44 0.44 0.00 0.00 0.00 0.44 0.44 0.00 0.00 0.44 0.44
Volume/Cap: 0.48 0.48 0.48 0.00 0.00 0.00 0.48 0.48 0.00 0.00 0.24 0.24
Delay/Veh:  11.3 11.3 11.3  0.0  0.0  0.0 13.5 13.5  0.0  0.0 11.7 11.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.3 11.3 11.3  0.0  0.0  0.0 13.5 13.5  0.0  0.0 11.7 11.7
DesignQueue:  1   10    4    0    0    0    2    6    0    0    3    1
**************************************************************************

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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                        2020 No Project Conditions
                              AM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #52 Channing Way / College Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.597
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):  21.7
Optimal Cycle:       43          Level Of Service:                  C
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18     0    0    0    17   17   17
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM (WB thru, NB righ
Base Vol:     26  256   22     6   92    2    21   76   31    88  150   43
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  26  256   22     6   92    2    21   76   31    88  150   43
Added Vol:    25   27    0     0    1    0     0    9    2     0   77    0
Future:       20   50   20     0   60   10    10   40   30    70   40   30
Initial Fut:  71  333   42     6  153   12    31  125   63   158  267   73
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   71  333   42     6  153   12    31  125   63   158  267   73
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  71  333   42     6  153   12    31  125   63   158  267   73
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   71  333   42     6  153   12    31  125   63   158  267   73
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.92 0.92 0.92  0.99 0.99 0.99  0.96 0.96 0.96  0.98 0.98 0.98
Lanes:      0.16 0.75 0.09  0.04 0.89 0.07  0.14 0.57 0.29  0.32 0.53 0.15
Final Sat.:  278 1302  164    66 1685  132   258 1042  525   591  998  273
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.26 0.26 0.26  0.09 0.09 0.09  0.12 0.12 0.12  0.27 0.27 0.27
Crit Moves:      ****                                            ****
Green/Cycle: 0.58 0.58 0.58  0.58 0.58 0.58  0.30 0.30 0.30  0.30 0.30 0.30
Volume/Cap: 0.44 0.44 0.44  0.16 0.16 0.16  0.40 0.40 0.40  0.90 0.90 0.90
Delay/Veh:   6.2  6.2  6.2   4.2  4.2  4.2  20.5 20.5 20.5  42.2 42.2 42.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  6.2  6.2  6.2   4.2  4.2  4.2  20.5 20.5 20.5  42.2 42.2 42.2

DesignQueue:   1    5    1     0    2    0     1    3    2     4    7    2
********************************************************************************
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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                        2020 No Project Conditions
                              AM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #53 Haste Street / Shattuck Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.647
Loss Time (sec):      8 (Y+R =  6 sec) Average Delay (sec/veh):  42.8
Optimal Cycle:       47          Level Of Service:                  D
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  21   21    0     0   21   21     0    0    0    18   18   18
Lanes:        1  0  2  0  0   0  0  1  1  0   0  0  0  0  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     66 1117    0     0  903   46     0    0    0   185  276   75
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  66 1117    0     0  903   46     0    0    0   185  276   75
Added Vol:     0   64    0     0    8    2     0    0    0     4    8    0
Future:       10  130    0     0  110   20     0    0    0    30  110   20
Initial Fut:  76 1311    0     0 1021   68     0    0    0   219  394   95
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   76 1311    0     0 1021   68     0    0    0   219  394   95
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  76 1311    0     0 1021   68     0    0    0   219  394   95
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   76 1311    0     0 1021   68     0    0    0   219  394   95
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.19 0.95 1.00  1.00 0.94 0.94  1.00 1.00 1.00  0.91 0.91 0.91
Lanes:      1.00 2.00 0.00  0.00 1.88 0.12  0.00 0.00 0.00  0.62 1.11 0.27
Final Sat.:  355 3610    0     0 3354  223     0    0    0  1072 1929  465
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.21 0.36 0.00  0.00 0.30 0.30  0.00 0.00 0.00  0.20 0.20 0.20
Crit Moves:      ****                                            ****
Green/Cycle: 0.33 0.33 0.00  0.00 0.33 0.33  0.00 0.00 0.00  0.55 0.55 0.55
Volume/Cap: 0.65 1.10 0.00  0.00 0.93 0.93  0.00 0.00 0.00  0.37 0.37 0.37
Delay/Veh:  37.3 74.1  0.0   0.0 27.7 27.7   0.0  0.0  0.0   8.9  8.9  8.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 37.3 74.1  0.0   0.0 27.7 27.7   0.0  0.0  0.0   8.9  8.9  8.9
DesignQueue:   2   35    0     0   27    2     0    0    0     4    7    2
********************************************************************************
```

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CUMULATIVE + LAB AM      Thu Mar 18, 2004 11:38:09        Page 60-1
--------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 No Project Conditions
                          AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #54 Haste Street / Fulton Street
********************************************************************************
Cycle (sec):        80        Critical Vol./Cap. (X):        0.378
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   15.2
Optimal Cycle:      53        Level Of Service:                 B
********************************************************************************
Approach:     North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0    0   25   25    0    0    0   20   20    0
Lanes:        0  0  0  0  0    0  0  1  1  0    0  0  0  0  0    0  1  1  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0    0    0    0  433  145    0    0    0   23  380    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0    0    0  433  145    0    0    0   23  380    0
Added Vol:    0    0    0    0    0    0    0    0    0    0   11    0
Future:       0    0    0    0   50   20    0    0    0    0  140    0
Initial Fut:  0    0    0    0  483  165    0    0    0   23  531    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0    0    0    0  483  165    0    0    0   23  531    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0    0    0    0  483  165    0    0    0   23  531    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0    0    0    0  483  165    0    0    0   23  531    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 0.95 0.95 1.00
Lanes:      0.00 0.00 0.00 0.00 1.49 0.51 0.00 0.00 0.00 0.08 1.92 0.00
Final Sat.:   0    0    0    0 2589  884    0    0    0  150 3460    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.00 0.19 0.19 0.00 0.00 0.00 0.15 0.15 0.00
Crit Moves:               ****                          ****
Green/Cycle: 0.00 0.00 0.00 0.00 0.49 0.49 0.00 0.00 0.00 0.41 0.41 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.38 0.38 0.00
Delay/Veh:   0.0  0.0  0.0  0.0 13.2 13.2  0.0  0.0  0.0 17.4 17.4  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  0.0 13.2 13.2  0.0  0.0  0.0 17.4 17.4  0.0
DesignQueue:  0    0    0    0   11    4    0    0    0    1   15    0
********************************************************************************


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CUMULATIVE + LAB AM      Thu Mar 18, 2004 11:38:09        Page 61-1
--------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 No Project Conditions
                          AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #55 Haste Street / Telegraph Avenue
********************************************************************************
Cycle (sec):        65        Critical Vol./Cap. (X):        0.437
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   16.5
Optimal Cycle:      40        Level Of Service:                 B
********************************************************************************
Approach:     North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16    0    0    0    0    0    0    0    0   16   16
Lanes:        0  1  1  0  0    0  0  0  0  0    0  0  0  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:   216  520    0    0    0    0    0    0    0    0  334   34
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 216  520    0    0    0    0    0    0    0    0  334   34
Added Vol:    0   68    0    0    0    0    0    0    0    0   11    0
Future:      20   50    0    0    0    0    0    0    0    0   90   30
Initial Fut: 236  638    0    0    0    0    0    0    0    0  435   64
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 236  638    0    0    0    0    0    0    0    0  435   64
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 236  638    0    0    0    0    0    0    0    0  435   64
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 236  638    0    0    0    0    0    0    0    0  435   64
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.93 0.93
Lanes:      0.54 1.46 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.74 0.26
Final Sat.: 975 2635    0    0    0    0    0    0    0    0 3087  454
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.24 0.24 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.14 0.14
Crit Moves:      ****                                         ****
Green/Cycle: 0.34 0.34 0.34 0.00 0.00 0.00 0.00 0.00 0.00 0.53 0.53 0.53
Volume/Cap: 0.71 0.71 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.26 0.26
Delay/Veh:  21.0 21.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  8.6  8.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 21.0 21.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  8.6  8.6
DesignQueue:  6   16    0    0    0    0    0    0    0    0    8    1
********************************************************************************


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UC Berkeley LRDP EIR
2020 No Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #56 Haste Street / College Avenue
****

Cycle (sec):	65	Critical Vol./Cap. (X):	0.600
Loss Time (sec):	8 (Y+R = 4 sec)	Average Delay (sec/veh):	11.1
Optimal Cycle:	40	Level Of Service:	B

****

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

------------|---------------||---------------||---------------||---------------|

Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	16 16 0	0 16 16	0 0 0	16 16 16
Lanes:	0 1 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0

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Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM

Base Vol:	167 267 0	0 115 69	0 0 0	48 223 21
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	167 267 0	0 115 69	0 0 0	48 223 21
Added Vol:	19 53 0	0 3 0	0 0 0	0 12 0
Future:	30 40 0	0 90 60	0 0 0	30 30 40
Initial Fut:	216 360 0	0 208 129	0 0 0	78 265 61
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	216 360 0	0 208 129	0 0 0	78 265 61
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	216 360 0	0 208 129	0 0 0	78 265 61
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	216 360 0	0 208 129	0 0 0	78 265 61

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Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.74 0.74 1.00	1.00 0.95 0.95	1.00 1.00 1.00	0.91 0.91 0.91
Lanes:	0.37 0.63 0.00	0.00 0.62 0.38	0.00 0.00 0.00	0.39 1.31 0.30
Final Sat.:	529 881 0	0 1112 689	0 0 0	665 2260 520

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Capacity Analysis Module:

Vol/Sat:	0.41 0.41 0.00	0.00 0.19 0.19	0.00 0.00 0.00	0.12 0.12 0.12
Crit Moves:	****			****
Green/Cycle:	0.63 0.63 0.00	0.00 0.63 0.63	0.00 0.00 0.00	0.25 0.25 0.25
Volume/Cap:	0.65 0.65 0.00	0.00 0.30 0.30	0.00 0.00 0.00	0.48 0.48 0.48
Delay/Veh:	7.3 7.3 0.0	0.0 3.4 3.4	0.0 0.0 0.0	22.8 22.8 22.8
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	7.3 7.3 0.0	0.0 3.4 3.4	0.0 0.0 0.0	22.8 22.8 22.8
DesignQueue:	3 5 0	0 3 2	0 0 0	2 7 2

****

UC Berkeley LRDP EIR
2020 No Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #57 Dwight Way / Martin Luther King Way
****

Cycle (sec):	70	Critical Vol./Cap. (X):	0.846
Loss Time (sec):	12 (Y+R = 4 sec)	Average Delay (sec/veh):	20.6
Optimal Cycle:	76	Level Of Service:	C

****

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

------------|---------------||---------------||---------------||---------------|

Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	18 18 18	18 18 18	21 21 21	0 0 0
Lanes:	0 1 0 1 0	0 1 0 1 0	0 1 0 1 0	0 0 0 0 0

------------|---------------||---------------||---------------||---------------|

Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM

Base Vol:	62 690 66	88 868 163	68 419 83	0 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	62 690 66	88 868 163	68 419 83	0 0 0
Added Vol:	0 1 0	0 1 6	0 78 0	0 0 0
Future:	20 30 10	10 200 50	10 50 10	0 0 0
Initial Fut:	82 721 76	98 1069 219	78 547 93	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	82 721 76	98 1069 219	78 547 93	0 0 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	82 721 76	98 1069 219	78 547 93	0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	82 721 76	98 1069 219	78 547 93	0 0 0

------------|---------------||---------------||---------------||---------------|

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.61 0.61 0.61	0.74 0.74 0.74	0.91 0.91 0.91	1.00 1.00 1.00
Lanes:	0.19 1.64 0.17	0.14 1.54 0.32	0.22 1.52 0.26	0.00 0.00 0.00
Final Sat.:	218 1914 202	198 2163 443	377 2647 450	0 0 0

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Capacity Analysis Module:

Vol/Sat:	0.38 0.38 0.38	0.49 0.49 0.49	0.21 0.21 0.21	0.00 0.00 0.00
Crit Moves:		****	****	
Green/Cycle:	0.53 0.53 0.53	0.53 0.53 0.53	0.30 0.30 0.30	0.00 0.00 0.00
Volume/Cap:	0.71 0.71 0.71	0.93 0.93 0.93	0.69 0.69 0.69	0.00 0.00 0.00
Delay/Veh:	12.5 12.5 12.5	23.4 23.4 23.4	25.3 25.3 25.3	0.0 0.0 0.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	12.5 12.5 12.5	23.4 23.4 23.4	25.3 25.3 25.3	0.0 0.0 0.0
DesignQueue:	2 14 1	2 22 4	2 16 3	0 0 0

****

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
         2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #58 Dwight Way / Shattuck Avenue
*******************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.852
Loss Time (sec):    12 (Y+R =  5 sec) Average Delay (sec/veh):   13.7
Optimal Cycle:      75          Level Of Service:                 B
*******************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted      Prot+Permit       Permitted       Permitted
Rights:          Include         Include          Include         Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0 1094  113    95  989    0    66  420  151     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0 1094  113    95  989    0    66  420  151     0    0    0
Added Vol:     0   62    0     1   10    0     2   76    0     0    0    0
Future:        0  130   30    10  110    0    20   50   10     0    0    0
Initial Fut:   0 1286  143   106 1109    0    88  546  161     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0 1286  143   106 1109    0    88  546  161     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0 1286  143   106 1109    0    88  546  161     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0 1286  143   106 1109    0    88  546  161     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.94 0.94  0.23 0.95 0.95  0.89 0.89 0.89  1.00 1.00 1.00
Lanes:      0.00 1.80 0.20  1.00 2.00 0.00  0.22 1.37 0.41  0.00 0.00 0.00
Final Sat.:    0 3200  356   446 3610    0   376 2333  688     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.40 0.40  0.24 0.31 0.00  0.23 0.23 0.23  0.00 0.00 0.00
Crit Moves:       ****            ****            ****
Green/Cycle:0.00 0.47 0.47  0.54 0.54 0.00  0.27 0.27 0.27  0.00 0.00 0.00
Volume/Cap: 0.00 0.85 0.85  0.44 0.57 0.00  0.85 0.85 0.85  0.00 0.00 0.00
Delay/Veh:   0.0 11.8 11.8  10.0  3.3  0.0  32.0 32.0 32.0   0.0  0.0  0.0
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 11.8 11.8  10.0  3.3  0.0  32.0 32.0 32.0   0.0  0.0  0.0
DesignQueue:   0   27    3     4   20    0     2   15    4     0    0    0
*******************************************************************************
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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
         2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #59 Dwight Way / Fulton Street
*******************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):        0.493
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   13.6
Optimal Cycle:      45          Level Of Service:                 B
*******************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted        Permitted       Permitted
Rights:          Include         Include          Include         Include
Min. Green:    0    0   21    21    0    0     0   16   16     0    0    0
Lanes:         0  0  0  0  1   2  0  0  0  0   0  0  1  1  0   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0   12   449    0    0     0  620    6     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0   12   449    0    0     0  620    6     0    0    0
Added Vol:     0    0    0     0    0    0     0   78    0     0    0    0
Future:        0    0   10    30    0    0     0   70   30     0    0    0
Initial Fut:   0    0   22   479    0    0     0  768   36     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0   22   479    0    0     0  768   36     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0   22   479    0    0     0  768   36     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0   22   479    0    0     0  768   36     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 0.87  0.59 1.00 1.00  1.00 0.94 0.94  1.00 1.00 1.00
Lanes:      0.00 0.00 1.00  2.00 0.00 0.00  0.00 1.91 0.09  0.00 0.00 0.00
Final Sat.:    0    0 1644  2260    0    0     0 3424  161     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.01  0.21 0.00 0.00  0.00 0.22 0.22  0.00 0.00 0.00
Crit Moves:                  ****                 ****
Green/Cycle:0.00 0.00 0.43  0.43 0.00 0.00  0.00 0.46 0.46  0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.03  0.49 0.00 0.00  0.00 0.49 0.49  0.00 0.00 0.00
Delay/Veh:   0.0  0.0 11.6  16.2  0.0  0.0   0.0 12.2 12.2   0.0  0.0  0.0
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0 11.6  16.2  0.0  0.0   0.0 12.2 12.2   0.0  0.0  0.0
DesignQueue:   0    0    0    11    0    0     0   17    1     0    0    0
*******************************************************************************
```

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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #60 Dwight Way / Telegraph Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):          0.745
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    17.7
Optimal Cycle:      50          Level Of Service:                  B
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   15   15     0    0    0    17   17   17     0    0    0
Lanes:        0  0  1  1  0    0 0  0  0  0    0  1  0  1  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  697   78     0    0    0    66  479  565     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  697   78     0    0    0    66  479  565     0    0    0
Added Vol:     0    0    0     0    0    0    68   10    0     0    0    0
Future:        0   60   10     0    0    0    10   60   40     0    0    0
Initial Fut:   0  757   88     0    0    0   144  549  605     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0  757   88     0    0    0   144  549  605     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0  757   88     0    0    0   144  549  605     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  757   88     0    0    0   144  549  605     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.93 0.93  1.00 1.00 1.00  0.82 0.82 0.82  1.00 1.00 1.00
Lanes:      0.00 1.79 0.21  0.00 0.00 0.00  0.22 0.85 0.93  0.00 0.00 0.00
Final Sat.:    0 3182  370     0    0    0   346 1321 1455     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.24 0.24  0.00 0.00 0.00  0.42 0.42 0.42  0.00 0.00 0.00
Crit Moves:      ****                            ****
Green/Cycle: 0.00 0.32 0.32  0.00 0.00 0.00  0.56 0.56 0.56  0.00 0.00 0.00
Volume/Cap: 0.00 0.75 0.75  0.00 0.00 0.00  0.75 0.75 0.75  0.00 0.00 0.00
Delay/Veh:   0.0 23.7 23.7   0.0  0.0  0.0  13.8 13.8 13.8   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 23.7 23.7   0.0  0.0  0.0  13.8 13.8 13.8   0.0  0.0  0.0
DesignQueue:   0   20    2     0    0    0     3   10   11     0    0    0
********************************************************************************
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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #61 Dwight Way / College Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):          0.538
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    12.3
Optimal Cycle:      39          Level Of Service:                  B
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   16   16    16   16    0    15   15   15     0    0    0
Lanes:        0  0  0  1  0    0 1  0  0  0    0  1  0  1  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      0  365   51    10  150    0    68  352   85     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  365   51    10  150    0    68  352   85     0    0    0
Added Vol:     0   64    0     0    3    0     7    2    0     0    0    0
Future:        0   50   10    20   90    0    20   20   10     0    0    0
Initial Fut:   0  479   61    30  243    0    95  374   95     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96
PHF Volume:    0  499   64    31  253    0    99  390   99     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0  499   64    31  253    0    99  390   99     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  499   64    31  253    0    99  390   99     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.99 0.99  0.92 0.92 1.00  0.90 0.90 0.90  1.00 1.00 1.00
Lanes:      0.00 0.89 0.11  0.11 0.89 0.00  0.34 1.32 0.34  0.00 0.00 0.00
Final Sat.:    0 1660  211   193 1563    0   578 2276  578     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.30 0.30  0.16 0.16 0.00  0.17 0.17 0.17  0.00 0.00 0.00
Crit Moves:      ****                            ****
Green/Cycle: 0.00 0.56 0.56  0.56 0.56 0.00  0.32 0.32 0.32  0.00 0.00 0.00
Volume/Cap: 0.00 0.54 0.54  0.29 0.29 0.00  0.54 0.54 0.54  0.00 0.00 0.00
Delay/Veh:   0.0  8.0  8.0   5.8  5.8  0.0  19.6 19.6 19.6   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  8.0  8.0   5.8  5.8  0.0  19.6 19.6 19.6   0.0  0.0  0.0
DesignQueue:   0    9    1     1    4    0     3   10    3     0    0    0
********************************************************************************
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                               UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                  AM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
                2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #62 Dwight Way / Piedmont Avenue / Warring Street
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.422
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    11.1
Optimal Cycle:      61          Level Of Service:                  B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
          ------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted       Permitted
Rights:          Include          Include          Include         Include
Min. Green:    0   22   0    29   29   0    24   24   24   24   0   24
Lanes:         0  0  1  1  0   0  1  1  0  0   1  0  1  0  1   0  0  1! 0  0
          ------------||---------------||---------------||---------------|
Volume Module: 7:00 AM - 9:00 AM
Base Vol:      0  583   0    8  324   0   91  143  238   42   0   48
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0  583   0    8  324   0   91  143  238   42   0   48
Added Vol:     0   69   0    0    7   0    1    0    1    0   0    0
Future:        0   70  10   10   40   0   10   10   30   10   0   10
Initial Fut:   0  722  10   18  371   0  102  153  269   52   0   58
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0  722  10   18  371   0  102  153  269   52   0   58
Reduct Vol:    0    0   0    0    0   0    0    0    0    0   0    0
Reduced Vol:   0  722  10   18  371   0  102  153  269   52   0   58
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0  722  10   18  371   0  102  153  269   52   0   58
          ------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  1.00 0.95 0.95 0.87 0.87 1.00 0.71 1.00 0.85 0.78 1.00 0.78
Lanes:       0.00 1.97 0.03 0.09 1.91 0.00 1.00 1.00 1.00 0.47 0.00 0.53
Final Sat.:    0 3554  49  153 3157   0 1357 1900 1615  698   0  778
          ------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.20 0.20 0.12 0.12 0.00 0.08 0.08 0.17 0.07 0.00 0.07
Crit Moves:       ****                      ****
Green/Cycle: 0.00 0.48 0.48 0.48 0.48 0.00 0.40 0.40 0.40 0.40 0.00 0.40
Volume/Cap:  0.00 0.42 0.42 0.24 0.24 0.00 0.19 0.19 0.42 0.19 0.00 0.19
Delay/Veh:    0.0  9.4  9.4  8.2  8.2  0.0 13.6 13.5 16.3 13.6  0.0 13.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   0.0  9.4  9.4  8.2  8.2  0.0 13.6 13.5 16.3 13.6  0.0 13.6
DesignQueue:   0   14   0    0    7   0    2    3    6    1   0    1
********************************************************************************
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                               UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                  AM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
                2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #63 Dwight Avenue / Prospect Street
********************************************************************************
Average Delay (sec/veh):     5.8          Worst Case Level Of Service:     B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
          ------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Uncontrolled    Uncontrolled
Rights:          Include          Include          Include         Include
Lanes:         0  0  0  0  0   0  0  1! 0  0   0  1  0  0  0   0  0  0  1  0
          ------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0   0   14    0  109  246   72    0    0   53   15
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0   0   14    0  109  246   72    0    0   53   15
Added Vol:     0    0   0    0    0    0    0    0    0    0    0    0
Future:        0    0   0    0    0   20   30    0    0    0   20    0
Initial Fut:   0    0   0   14    0  129  276   72    0    0   73   15
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0    0   0   14    0  129  276   72    0    0   73   15
Reduct Vol:    0    0   0    0    0    0    0    0    0    0    0    0
Final Vol.:    0    0   0   14    0  129  276   72    0    0   73   15
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4 xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5 xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
          ------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   705 xxxx    81    88 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   406 xxxx   985  1520 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   339 xxxx   985  1520 xxxx xxxxx  xxxx xxxx xxxxx
          ------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   7.9 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     A    *    *     *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  830 xxxxx xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 10.2 xxxxx   7.9 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *     *    B    *     A    *    *     *    *    *
ApproachDel:    xxxxxx           10.2           xxxxxx         xxxxxx
ApproachLOS:       *               B               *              *
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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                                AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #64 Adeline Street / Ward Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):          0.798
Loss Time (sec):       8 (Y+R =  6 sec) Average Delay (sec/veh):      16.9
Optimal Cycle:        57          Level Of Service:                    B
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Protected        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    0   25   25     0   25   25    19    0   19     0    0    0
Lanes:         0  0  0  1  0   0  0  2  0  1  2  0  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  784    3     0  736  546  723    0    4     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  784    3     0  736  546  723    0    4     0    0    0
Added Vol:     0   28    0     0    5    5   34    0    0     0    0    0
Future:        0   50    0     0   40   70  100    0    0     0    0    0
Initial Fut:   0  862    3     0  781  621  857    0    4     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0  862    3     0  781  621  857    0    4     0    0    0
Reduct Vol:    0    0    0     0    0    0    0    0    0     0    0    0
Reduced Vol:   0  862    3     0  781  621  857    0    4     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  862    3     0  781  621  857    0    4     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  1.00 0.95 0.85  0.92 1.00 0.85  1.00 1.00 1.00
Lanes:      0.00 0.99 0.01  0.00 2.00 1.00  2.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:    0 1893    7     0 3610 1615  3502    0 1615     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.46 0.46  0.00 0.22 0.38  0.24 0.00 0.00  0.00 0.00 0.00
Crit Moves:      ****                 ****
Green/Cycle: 0.00 0.57 0.57  0.00 0.57 0.57  0.31 0.00 0.31  0.00 0.00 0.00
Volume/Cap: 0.00 0.80 0.80  0.00 0.38 0.67  0.80 0.00 0.01  0.00 0.00 0.00
Delay/Veh:   0.0 17.2 17.2   0.0  8.2 13.7  26.9  0.0 15.7   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 17.2 17.2   0.0  8.2 13.7  26.9  0.0 15.7   0.0  0.0  0.0
DesignQueue:   0   15    0     0   13   11   23    0    0     0    0    0
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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                                AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #65 Derby Street / Warring Street
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):          1.421

Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):     189.0
Optimal Cycle:         0          Level Of Service:                    F
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0  0  0  0  0   0  0  1! 0  0   0  1  0  0  0   0  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0   650    0   31   14   20    0     0   34  779
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0   650    0   31   14   20    0     0   34  779
Added Vol:     0    0    0     8    0    0    0    0    0     0    0   69
Future:        0    0    0    90    0   10   10    0    0     0    0   90
Initial Fut:   0    0    0   748    0   41   14   30    0     0   34  938
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0   748    0   41   14   30    0     0   34  938
Reduct Vol:    0    0    0     0    0    0    0    0    0     0    0    0
Reduced Vol:   0    0    0   748    0   41   14   30    0     0   34  938
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0    0   748    0   41   14   30    0     0   34  938
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.00 0.00  0.95 0.00 0.05  0.32 0.68 0.00  0.00 0.03 0.97
Final Sat.:    0    0    0   574    0   31  166  355    0     0   24  660
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx xxxx xxxx  1.30 xxxx 1.30  0.08 0.08 xxxx  xxxx 1.42 1.42
Crit Moves:                 ****                 ****                    ****
Delay/Veh:   0.0  0.0  0.0 167.7  0.0 167.7  10.5 10.5  0.0   0.0  214 214.3
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 167.7  0.0 167.7  10.5 10.5  0.0   0.0  214 214.3
LOS by Move:  *    *    *    F    *    F     B    B    *     *    F    F
ApproachDel: xxxxxx          167.7            10.5            214.3
Delay Adj:    xxxxx          1.00             1.00            1.00
ApprAdjDel:  xxxxxx          167.7            10.5            214.3
LOS by Appr:     *              F                B               F
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #66 Derby Street / Claremont Blvd.
**************************************************************************
Cycle (sec):        65         Critical Vol./Cap. (X):       0.662
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    18.5
Optimal Cycle:      61         Level Of Service:               B
**************************************************************************
Approach:      North Bound    South Bound    East Bound     West Bound
Movement:      L  -  T  -  R  L  -  T  -  R  L  -  T  -  R  L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:      Split Phase    Split Phase     Permitted      Permitted
Rights:         Include        Include        Include        Include
Min. Green:   18    0   18    0    0    0    0   35   35   35   35    0
Lanes:       0 0 1! 0 0    0 0 0 0 0    0 0 0 1 0    0 1 0 0 0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:       5    0   64    0    0    0    0  665   12   52  813    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    5    0   64    0    0    0    0  665   12   52  813    0
Added Vol:      0    0    0    0    0    0    0    8    0    0   69    0
Future:         0    0    0    0    0    0    0  100    0    0   90    0
Initial Fut:    5    0   64    0    0    0    0  773   12   52  972    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     5    0   64    0    0    0    0  773   12   52  972    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    5    0   64    0    0    0    0  773   12   52  972    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:     5    0   64    0    0    0    0  773   12   52  972    0
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.87 1.00 0.87 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.07 0.00 0.93 0.00 0.00 0.00 0.00 0.98 0.02 0.05 0.95 0.00
Final Sat.:   120    0 1536    0    0    0    0 1867   29   96 1804    0
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.41 0.41 0.54 0.54 0.00
Crit Moves:  ****                                              ****
Green/Cycle: 0.28 0.00 0.28 0.00 0.00 0.00 0.00 0.60 0.60 0.60 0.60 0.00
Volume/Cap:  0.15 0.00 0.15 0.00 0.00 0.00 0.00 0.69 0.69 0.90 0.90 0.00
Delay/Veh:   18.3  0.0 18.3  0.0  0.0  0.0  0.0 12.5 12.5 23.1 23.1  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  18.3  0.0 18.3  0.0  0.0  0.0  0.0 12.5 12.5 23.1 23.1  0.0
DesignQueue:    0    0    2    0    0    0    0   13    0    1   16    0
**************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #67 Ashby Avenue / Seventh Street
**************************************************************************
Cycle (sec):       100         Critical Vol./Cap. (X):       0.993
Loss Time (sec):    12 (Y+R =  4 sec) Average Delay (sec/veh):    54.2
Optimal Cycle:     180         Level Of Service:               D
**************************************************************************
Approach:      North Bound    South Bound    East Bound     West Bound
Movement:      L  -  T  -  R  L  -  T  -  R  L  -  T  -  R  L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted      Permitted      Split Phase    Split Phase
Rights:         Include        Include        Include        Include
Min. Green:    4   19   19    4   19   19    4   22   22    4   20   20
Lanes:       0 1 0 1 0    0 1 0 1 0    1 0 1 1 0    1 0 1 1 0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:      62  162   54   54  193  224  433  915  306  111  663   25
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   62  162   54   54  193  224  433  915  306  111  663   25
Added Vol:      0    0    0    0    0    0    0   38    0    0    5    0
Future:       100   70   20   60   20   30   50   60   40   50   60   30
Initial Fut:  162  232   74  114  213  254  483 1013  346  161  728   55
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   162  232   74  114  213  254  483 1013  346  161  728   55
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  162  232   74  114  213  254  483 1013  346  161  728   55
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   162  232   74  114  213  254  483 1013  346  161  728   55
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.52 0.52 0.52 0.58 0.58 0.58 0.95 0.91 0.91 0.95 0.94 0.94
Lanes:       0.69 0.99 0.32 0.39 0.73 0.88 0.41 1.49 0.51 0.41 1.86 0.14
Final Sat.:   678  971  310  433  808  964 1805 2589  884 1805 3323  251
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.24 0.24 0.24 0.26 0.26 0.26 0.27 0.39 0.39 0.09 0.22 0.22
Crit Moves:                      ****              ****      ****
Green/Cycle: 0.27 0.27 0.27 0.27 0.27 0.27 0.39 0.39 0.39 0.22 0.22 0.22
Volume/Cap:  0.90 0.90 0.90 0.99 0.99 0.99 0.68 0.99 0.99 0.40 0.99 0.99
Delay/Veh:   54.1 54.1 54.1 72.0 72.0 72.0 25.2 49.8 49.8 35.4 70.7 70.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  54.1 54.1 54.1 72.0 72.0 72.0 25.2 49.8 49.8 35.4 70.7 70.7
DesignQueue:    7   10    3    5    9   11   17   38   13    7   33    3
**************************************************************************
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-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #68 Ashby Avenue / San Pablo Avenue
*************************************************************************
Cycle (sec):       100         Critical Vol./Cap. (X):       0.905
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    35.8
Optimal Cycle:     103         Level Of Service:                D
*************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   4   17   17    4   19   19    18   18   18    18   18   18
Lanes:       1 0  1  1 0    1 0  1  1 0    1 0  1  1 0    0 1  0  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    173  521   53   137  741  128    84  584  134    51  613  135
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 173  521   53   137  741  128    84  584  134    51  613  135
Added Vol:     0    9    9     0    0    2     0   38    0     2    3    0
Future:       20  220   20    20  320   30    20  120   10    20   80   50
Initial Fut: 193  750   82   157 1061  160   104  742  144    73  696  185
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  193  750   82   157 1061  160   104  742  144    73  696  185
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 193  750   82   157 1061  160   104  742  144    73  696  185
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  193  750   82   157 1061  160   104  742  144    73  696  185
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.94 0.94  0.95 0.93 0.93  0.16 0.93 0.93  0.66 0.66 0.66
Lanes:      1.00 1.80 0.20  1.00 1.74 0.26  0.15 1.67 0.33  0.15 1.46 0.39
Final Sat.:  1805 3205  350  1805 3074  464   295 2951  573   192 1828  486
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.11 0.23 0.23  0.09 0.35 0.35  0.35 0.25 0.25  0.38 0.38 0.38
Crit Moves: ****             ****                             ****
Green/Cycle: 0.12 0.36 0.36  0.14 0.38 0.38  0.42 0.42 0.42  0.42 0.42 0.42
Volume/Cap: 0.91 0.64 0.64  0.64 0.91 0.91  0.84 0.60 0.60  0.91 0.91 0.91
Delay/Veh:  80.3 27.5 27.5  46.7 38.2 38.2  63.3 23.1 23.1  38.1 38.1 38.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 80.3 27.5 27.5  46.7 38.2 38.2  63.3 23.1 23.1  38.1 38.1 38.1
DesignQueue:  10   28    3     8   40    6     3   25    5     3   24    6
*************************************************************************
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-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #69 Ashby Avenue / Adeline Street
*************************************************************************
Cycle (sec):       140         Critical Vol./Cap. (X):       0.604
Loss Time (sec):    16 (Y+R =  4 sec) Average Delay (sec/veh):    41.8
Optimal Cycle:      96         Level Of Service:                D
*************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:   4   38   38    6   38   38     4   22   22     4   32   32
Lanes:       1 0  1  1 0    1 0  2  1 0    1 0  1  1 0    1 0  1  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     74  567   61    11  438   96   189  564   49    83  549   14
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  74  567   61    11  438   96   189  564   49    83  549   14
Added Vol:     0    6    0     0    1    4    28   18    0     0    0    0
Future:       30   50   10    10   10   50    50  110   20    10  190    0
Initial Fut: 104  623   71    21  449  150   267  692   69    93  739   14
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  104  623   71    21  449  150   267  692   69    93  739   14
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 104  623   71    21  449  150   267  692   69    93  739   14
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  104  623   71    21  449  150   267  692   69    93  739   14
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.94 0.94  0.95 0.88 0.88  0.95 0.94 0.94  0.95 0.95 0.95
Lanes:      1.00 1.80 0.20  1.00 2.25 0.75  1.00 1.82 0.18  1.00 1.96 0.04
Final Sat.:  1805 3192  364  1805 3744 1251  1805 3237  323  1805 3532   67
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.06 0.20 0.20  0.01 0.12 0.12  0.15 0.21 0.21  0.05 0.21 0.21
Crit Moves: ****             ****             ****                  ****
Green/Cycle: 0.09 0.31 0.31  0.05 0.27 0.27  0.22 0.43 0.43  0.10 0.31 0.31
Volume/Cap: 0.68 0.63 0.63  0.24 0.44 0.44  0.68 0.50 0.50  0.68 0.68 0.68
Delay/Veh:  73.4 42.9 42.9  65.5 42.5 42.5  56.8 25.6 25.6  67.9 42.9 42.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 73.4 42.9 42.9  65.5 42.5 42.5  56.8 25.6 25.6  67.9 42.9 42.9
DesignQueue:   8   35    4     2   26    9    17   33    3     7   42    1
*************************************************************************
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                             UC Berkeley LRDP EIR
                           2020 No Project Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #70 Ashby Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):         80          Critical Vol./Cap. (X):          0.533
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):     16.2
Optimal Cycle:       53          Level Of Service:                   B
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  21  21  21    6  21  21   20  20  20   20  20  20
Lanes:        0   1   0  1  0   1   0  1  0   1   0  1  0   1   0  1  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    77  590   26  124  450   35   33  557   31   40  550  182
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 77  590   26  124  450   35   33  557   31   40  550  182
Added Vol:    0   27    0    2    3    0    0   18    0    0    0    0
Future:      30   20   10   20   10   10   10  110   10   10  150   10
Initial Fut:107  637   36  146  463   45   43  685   41   50  700  192
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 107  637   36  146  463   45   43  685   41   50  700  192
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:107  637   36  146  463   45   43  685   41   50  700  192
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 107  637   36  146  463   45   43  685   41   50  700  192
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.27 1.64 0.09 0.45 1.41 0.14 0.11 1.78 0.11 0.10 1.49 0.41
Final Sat.:  521 3103  175  848 2690  261  212 3385  203  202 2824  775
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.21 0.21 0.21 0.17 0.17 0.17 0.20 0.20 0.20 0.25 0.25 0.25
Crit Moves:      ****                                         ****
Green/Cycle:0.39 0.39 0.39 0.39 0.39 0.39 0.46 0.46 0.46 0.46 0.46 0.46
Volume/Cap: 0.53 0.53 0.53 0.45 0.45 0.45 0.44 0.44 0.44 0.53 0.53 0.53
Delay/Veh:  20.4 20.4 20.4 19.3 19.3 19.3 12.5 12.5 12.5 13.6 13.6 13.6
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 20.4 20.4 20.4 19.3 19.3 19.3 12.5 12.5 12.5 13.6 13.6 13.6
DesignQueue:   3   18    1    4   13    1    1   17    1    1   18    5
********************************************************************************
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                             UC Berkeley LRDP EIR
                           2020 No Project Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #71 Ashby Avenue / Telegraph Avenue
********************************************************************************
Cycle (sec):         80          Critical Vol./Cap. (X):          0.893
Loss Time (sec):     12 (Y+R =  6 sec) Average Delay (sec/veh):     26.1
Optimal Cycle:       95          Level Of Service:                   C
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:        Permitted       Prot+Permit       Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  21  21  21    0  21  21   25  25  25   25  25  25
Lanes:        1   0   1  1  0   1   0  1  1  0   1   0  1  1  0   1   0  1  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:   150  985   80  148  623  103   86  549  120   89  573   83
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:150  985   80  148  623  103   86  549  120   89  573   83
Added Vol:    0    0    0    0    0    0    0   20    0    0    0    0
Future:      50   40   10   10   60   30   20   90   20   10   80   10
Initial Fut:200 1025   90  158  683  133  106  659  140   99  653   93
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 200 1025   90  158  683  133  106  659  140   99  653   93
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:200 1025   90  158  683  133  106  659  140   99  653   93
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 200 1025   90  158  683  133  106  659  140   99  653   93
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.26 0.94 0.94 0.27 0.93 0.93 0.22 0.93 0.93 0.19 0.93 0.93
Lanes:      1.00 1.84 0.16 1.00 1.67 0.33 1.00 1.65 0.35 1.00 1.75 0.25
Final Sat.:  496 3279  288  521 2949  574  426 2900  616  369 3100  441
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.40 0.31 0.31 0.30 0.23 0.23 0.25 0.23 0.23 0.27 0.21 0.21
Crit Moves: ****             ****                             ****
Green/Cycle:0.43 0.43 0.43 0.52 0.52 0.52 0.33 0.33 0.33 0.33 0.33 0.33
Volume/Cap: 0.95 0.73 0.73 0.58 0.44 0.44 0.77 0.70 0.70 0.83 0.65 0.65
Delay/Veh:  71.5 22.3 22.3 22.6 12.5 12.5 56.0 26.3 26.3 69.3 25.1 25.1
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 71.5 22.3 22.3 22.6 12.5 12.5 56.0 26.3 26.3 69.3 25.1 25.1
DesignQueue:   5   28    2    6   15    3    3   21    4    3   21    3
********************************************************************************
```

```
                        UC Berkeley LRDP EIR
                     2020 No Project Conditions
                           AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #72 Ashby Avenue / College Avenue
********************************************************************************
Cycle (sec):        80          Critical Vol./Cap. (X):       1.085
Loss Time (sec):    12 (Y+R =  4 sec) Average Delay (sec/veh):   36.5
Optimal Cycle:     180          Level Of Service:                 D
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    30   30   30    30   30   30
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     79  323    26   118  232    95    33  490    92     4  611   229
Growth Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  79  323    26   118  232    95    33  490    92     4  611   229
Added Vol:     0   24     0     1    2     0    18    2     0     0    0    21
Future:       20   20    10    20   20    60    20   80    10    10   20    30
Initial Fut:  99  367    36   139  254   155    71  572   102    14  631   280
User Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   99  367    36   139  254   155    71  572   102    14  631   280
Reduct Vol:    0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  99  367    36   139  254   155    71  572   102    14  631   280
PCE Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:   99  367    36   139  254   155    71  572   102    14  631   280
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment: 0.80 0.80  0.80  0.71 0.71  0.71  0.82 0.82  0.82  0.95 0.95  0.95
Lanes:      0.20 0.73  0.07  0.25 0.47  0.28  0.09 0.77  0.14  0.02 0.68  0.30
Final Sat.:  299 1108   109   341  623   380   149 1200   214    27 1227   544
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.33 0.33  0.33  0.41 0.41  0.41  0.48 0.48  0.48  0.51 0.51  0.51
Crit Moves:                  ****                             ****
Green/Cycle:0.38 0.38  0.38  0.00 0.45  0.45  0.53 0.53  0.53  0.53 0.53  0.53
Volume/Cap: 0.88 0.88  0.88  xxxx 0.91  0.91  0.91 0.91  0.91  0.98 0.98  0.98
Delay/Veh:  39.3 39.3  39.3   0.0 36.8  36.8  32.9 32.9  32.9  43.4 43.4  43.4
User DelAdj:1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh: 39.3 39.3  39.3   0.0 36.8  36.8  32.9 32.9  32.9  43.4 43.4  43.4
DesignQueue:   3   11     1     7    7     4     2   13     2     0   15     7
********************************************************************************
```

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                        UC Berkeley LRDP EIR
                     2020 No Project Conditions
                           AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #73 Ashby Avenue / Claremont Avenue
********************************************************************************
Cycle (sec):        80          Critical Vol./Cap. (X):       0.778
Loss Time (sec):    12 (Y+R =  6 sec) Average Delay (sec/veh):   23.5
Optimal Cycle:      72          Level Of Service:                 C
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase      Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16   16    16   16   16    28   28   28    28   28   28
Lanes:        0  1  0  1  0   1  1  0  1  0   0  1  0  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     35  288   153   321  272    59    43  504    13    90  637   429
Growth Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  35  288   153   321  272    59    43  504    13    90  637   429
Added Vol:     0    0     0     8    0     0     0    3     0     0   21    69
Future:       20   10    30    40   50    10    30   60    10    30   20    50
Initial Fut:  55  298   183   369  322    69    73  567    23   120  678   548
User Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   55  298   183   369  322    69    73  567    23   120  678   548
Reduct Vol:    0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  55  298   183   369  322    69    73  567    23   120  678   548
PCE Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:   55  298   183   369  322    69    73  567    23   120  678   548
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment: 0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
Lanes:      0.21 1.11  0.68  1.46 1.27  0.27  0.22 1.71  0.07  0.18 1.01  0.81
Final Sat.:  370 2007  1233  2629 2294   492   397 3087   125   322 1818  1470
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.15 0.15  0.15  0.14 0.14  0.14  0.18 0.18  0.18  0.37 0.37  0.37
Crit Moves: ****                  ****                             ****
Green/Cycle:0.20 0.20  0.20  0.20 0.20  0.20  0.45 0.45  0.45  0.45 0.45  0.45
Volume/Cap: 0.74 0.74  0.74  0.70 0.70  0.70  0.41 0.41  0.41  0.83 0.83  0.83
Delay/Veh:  34.2 34.2  34.2  31.9 31.9  31.9  12.6 12.6  12.6  19.8 19.8  19.8
User DelAdj:1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh: 34.2 34.2  34.2  31.9 31.9  31.9  12.6 12.6  12.6  19.8 19.8  19.8
DesignQueue:   2   11     7    14   12     3     2   15     1     3   18    15
********************************************************************************
```

                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                            AM Peak Hour

                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #74 Tunnel Road / SR 13
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.771
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   15.8
Optimal Cycle: 53   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Protected   Protected   Split Phase   Split Phase
Rights: Include   Include   Include   Ovl
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 0 0 2 0 1   2 0 1 0 0   0 0 0 0 0   1 0 0 0 2
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 0 1293 435 487 608   0   0   0   0 205   0 307
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1293 435 487 608   0   0   0   0 205   0 307
Added Vol: 0   90   0   5   5   0   0   0   0   0   0   0
Future: 0   80   0   60   70   0   0   0   0   0   0   20
Initial Fut: 0 1463 435 552 683   0   0   0   0 205   0 327
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1463 435 552 683   0   0   0   0 205   0 327
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0 1463 435 552 683   0   0   0   0 205   0 327
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0 1463 435 552 683   0   0   0   0 205   0 327
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.85 0.92 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.75
Lanes: 0.00 2.00 1.00 2.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 2.00
Final Sat.:   0 3610 1615 3502 1900   0   0   0   0 1805   0 2842
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.41 0.27 0.16 0.36 0.00 0.00 0.00 0.00 0.11 0.00 0.12
Crit Moves: ****   ****   ****
Green/Cycle: 0.00 0.53 0.53 0.20 0.73 0.00 0.00 0.00 0.00 0.15 0.00 0.35
Volume/Cap: 0.00 0.77 0.51 0.77 0.49 0.00 0.00 0.00 0.00 0.77 0.00 0.33
Delay/Veh: 0.0 14.3 10.6 29.6 4.0 0.0 0.0 0.0 0.0 39.7 0.0 15.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 14.3 10.6 29.6 4.0 0.0 0.0 0.0 0.0 39.7 0.0 15.6
DesignQueue: 0   28   8   16   7   0   0   0   0   6   0   8
****

UC Berkeley LRDP EIR
2020 No Project Conditions
PM Peak Hour

Scenario Report

Scenario: CUMULATIVE + LAB PM

Command: CUMULATIVE PM
Volume: CUMULATIVE PM
Geometry: CUMULATIVE PM
Impact Fee: Default Impact Fee
Trip Generation: PM LAB 2020
Trip Distribution: Cumulative With Lab PM
Paths: Default Paths
Routes: Default Routes
Configuration: CUMULATIVE LAB PM

UC Berkeley LRDP EIR
2020 No Project Conditions
PM Peak Hour

Trip Generation Report

Forecast for APPROVED PM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
13	Lower Hearst	1.00	Approved Parki	6.00	39.00	6	39	45	9.7
	Zone 13 Subtotal					6	39	45	9.7
14	Underhill	1.00	Approved Parki	35.00	242.00	35	242	277	60.0
	Zone 14 Subtotal					35	242	277	60.0

TOTAL 41 281 322 69.7

```
                      UC Berkeley LRDP EIR
                   2020 No Project Conditions
                        PM Peak Hour
```

```
                    Trip Generation Report

                  Forecast for PM LAB 2020

Zone                           Rate   Rate   Trips Trips Total % Of
 #   Subzone      Amount Units   In     Out    In    Out  Trips Total

---- ------------ ------- -------------- ------ ------ ----- ----- ----- -----

 101 Blackberry I   1.00 LBNL Blackberr 13.00  0.00    13     0    13   2.8
          Zone 101 Subtotal ...........................    13     0    13   2.8

 102 Blackberry O   1.00 LBNL Blackberr  0.00 58.00     0    58    58  12.6
          Zone 102 Subtotal ...........................     0    58    58  12.6

 103 Strawberry I   1.00 LBNL Strawberr  3.00  0.00     3     0     3   0.6
          Zone 103 Subtotal ...........................     3     0     3   0.6

 104 Strawberry O   1.00 LBNL Strawberr  0.00 21.00     0    21    21   4.5
          Zone 104 Subtotal ...........................     0    21    21   4.5

 106 Grizzly OUT    1.00 LBNL Grizzly O  0.00 45.00     0    45    45   9.7
          Zone 106 Subtotal ...........................     0    45    45   9.7

------------------------------------------------------------------------
TOTAL ...................................................    16   124   140  30.3
```

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                      UC Berkeley LRDP EIR
                   2020 No Project Conditions
                        PM Peak Hour
```

```
                    Trip Distribution Report

            Percent Of Trips CUMULATIVE PM WITH LAB
```

| | | | | | | To Gates | | | | | |
Zone	1	2	3	4	5	6	7	8	9	10	11
1	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
2	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
3	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
4	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
5	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
6	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
7	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
8	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
9	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
10	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
11	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
12	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
13	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
14	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
101	5.3	0.0	5.2	0.0	13.8	8.6	19.0	25.9	10.3	0.0	1.7
102	5.1	0.0	13.5	0.0	9.1	10.9	17.2	20.4	11.3	0.0	2.6
103	7.1	0.0	7.1	0.0	14.3	7.1	21.4	28.6	14.4	0.0	0.0
104	5.0	0.0	14.0	0.0	10.0	12.0	17.0	22.0	10.0	0.0	2.0
105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106	5.2	0.0	13.3	0.0	9.0	10.0	18.5	20.4	11.4	0.0	2.8

| | To Gates | | | | | |
Zone	12	13	14	15	16	17
1	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0
101	1.7	1.7	1.7	1.7	1.7	1.7
102	2.6	1.5	1.5	2.1	1.1	1.1
103	0.0	0.0	0.0	0.0	0.0	0.0
104	2.0	1.0	1.0	2.0	1.0	1.0
105	0.0	0.0	0.0	0.0	0.0	0.0

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                         To Gates
            12    13    14    15    16    17
 Zone     ----- ----- ----- ----- ----- -----
 106       2.8   1.4   1.4   1.9   0.9   1.0
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                        Turning Movement Report
                       APPROVED PM + PM LAB 2020

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type    Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#1 Marin Avenue / San Pablo Avenue
Base     227 1022  114   169  659   18    18  656  137   145  736  154    4055
Added      0   27    0     0    6    0     0    0    0     0    2   13      48
Future    30  209   50    90  221   28    27  181   10    47  163   90    1146
Total    257 1258  164   259  886   46    45  837  147   192  901  257    5249

#2 Marin Avenue / The Alameda
Base     316  322    1    43  178   77    50  534  193    17  480   69    2280
Added     12    3    0     0    1    0     0    0    0     0    3    0      19
Future   130  110   10    10   30   70    20  200   80    10   70   10     750
Total    458  435   11    53  209  147    70  734  273    27  553   79    3049

#3 Gilman Street / Sixth Street
Base     346   46  159    24   47   52    28  497  109    53  489   11    1861
Added      0    0    0     0    0    0     0    0    0     0    0    0       0
PassBy   120    0   93    20   90    0     0  193  180   122   41    0     859
Total    466   46  252    44  137   52    28  690  289   175  530   11    2720

#4 Gilman Street / San Pablo Avenue
Base     140 1057   87   126  830  112   174  345  155    40  233   82    3381
Added      0   27    0     0    6    0     0    0    0     0    0    0      33
PassBy    60  183   40    20  180   30   107   50  120    10   30   44     874
Total    200 1267  127   146 1016  142   281  395  275    50  263  126    4288

#5 Rose Street / Shattuck Avenue
Base     159  641   14   112  444   26    69  253   49    29  214  228    2238
Added      0    2    0     0    0    0     0    0    0     0    0    0       2
Future    60  230   20    10  220   10    10   10   30    20   10   10     640
Total    219  873   34   122  664   36    79  263   79    49  224  238    2880

#6 Cedar Street / Martin Luther King Way
Base      53  614   65    30  541   12    20  297   57    68  296   65    2118
Added      0   16    0     0    1    0     0    1    0     0    1    0      19
Future    20  210   30    20   80   10    10  110   10    10   30   10     550
Total     73  840   95    50  622   22    30  408   67    78  327   75    2687

#7 Cedar Street / Shattuck Avenue
Base     138  795   56   144  619   72    86  275   67    59  341  150    2802
Added      0    2    0     0    0    0     0    1    0     0    1    0       4
Future    20  230   40    20  210   10    10   80   40    60   20   40     780
Total    158 1027   96   164  829   82    96  356  107   119  362  190    3586
```

UC Berkeley LRDP EIR
2020 No Project Conditions
PM Peak Hour

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#8 Cedar Street / Oxford Street													
Base	91	464	81	17	196	17	18	307	57	61	340	31	1680
Added	1	0	0	0	0	0	0	0	0	0	0	0	1
future	40	80	20	10	10	0	20	120	40	50	100	10	500
Total	132	544	101	27	206	17	38	427	97	111	440	41	2181
#9 Cedar Street / Euclid Avenue													
Base	90	226	29	7	127	44	51	180	49	18	91	0	912
Added	0	0	0	0	0	0	3	0	0	0	0	0	3
Future	50	30	0	0	10	20	40	100	40	10	70	0	370
Total	140	256	29	7	137	64	94	280	89	28	161	0	1285
#10 Grizzly Peak Blvd / Centennial Drive													
Base	162	65	250	33	30	8	3	159	45	22	111	25	913
Added	7	0	20	0	0	0	0	0	0	2	0	0	29
Future	10	0	30	0	0	0	0	20	20	10	10	0	100
Total	179	65	300	33	30	8	3	179	65	34	121	25	1042
#11 Hearst Avenue / Shattuck Avenue													
Base	34	715	63	117	537	54	67	232	20	122	321	136	2418
Added	0	0	0	0	0	0	0	2	0	35	17	2	56
Future	20	160	30	60	240	40	50	20	20	50	20	90	800
Total	54	875	93	177	777	94	117	254	40	207	358	228	3274
#12 Hearst Avenue / Oxford Avenue													
Base	80	743	315	30	458	25	23	267	115	313	478	52	2899
Added	0	0	7	0	0	0	0	2	0	39	55	1	104
Future	30	110	40	10	70	20	0	80	40	40	1120	10	1570
Total	110	853	362	40	528	45	23	349	155	392	1653	63	4573
#13 Hearst Avenue / Spruce Street													
Base	0	0	0	11	0	48	34	579	0	0	792	13	1477
Added	0	0	0	1	0	0	0	10	0	0	95	3	109
Future	0	0	0	0	0	20	0	130	0	0	170	0	320
Total	0	0	0	12	0	68	34	719	0	0	1057	16	1906
#14 Hearst Avenue / Arch Street / Le Conte Avenue													
Base	0	0	0	6	0	135	146	439	0	0	668	6	1400
Added	0	0	0	0	0	0	3	7	0	0	98	0	108
Future	0	0	0	0	0	40	50	100	0	0	150	0	340
Total	0	0	0	6	0	175	199	546	0	0	916	6	1848
#15 Hearst Avenue / Scenic Avenue													
Base	0	0	0	0	0	109	0	437	0	0	566	54	1166
Added	0	0	0	0	0	11	0	0	0	0	86	0	97
Future	0	0	0	0	0	30	0	100	0	0	140	10	280
Total	0	0	0	0	0	150	0	537	0	0	792	64	1543

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Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#16 Hearst Avenue / Euclid Avenue													
Base	4	0	1	57	0	115	120	307	0	2	503	23	1132
Added	0	0	0	0	0	0	0	7	0	0	76	0	83
Future	0	0	0	10	0	40	40	80	0	0	130	10	310
Total	4	0	1	67	0	155	160	394	0	2	709	33	1525
#17 Hearst Avenue / Le Roy Avenue													
Base	0	0	0	12	0	56	38	355	0	0	523	21	1005
Added	0	0	0	0	0	0	0	7	0	0	76	0	83
Future	0	0	0	0	0	10	20	90	0	0	140	10	270
Total	0	0	0	12	0	66	58	452	0	0	739	31	1358
#18 Hearst Avenue / Gayley Road / LaLoma Avenue													
Base	318	288	19	4	203	49	28	52	288	69	197	40	1555
Added	26	31	7	0	12	0	0	6	1	8	50	0	141
Future	90	30	10	0	0	20	20	30	60	10	60	10	340
Total	434	349	36	4	215	69	48	88	349	87	307	50	2036
#19 Berkeley Way / Oxford Street													
Base	48	1039	3	4	890	22	72	2	51	29	18	42	2220
Added	0	7	0	0	39	0	0	0	0	0	0	0	46
Future	20	160	0	0	170	0	10	0	10	20	0	10	400
Total	68	1206	3	4	1099	22	82	2	61	49	18	52	2666
#20 University Avenue / Sixth Street													
Base	343	353	48	101	239	465	163	827	212	42	1205	33	4031
Added	0	0	1	0	3	8	1	6	0	0	46	0	65
Future	10	70	40	100	130	100	20	200	20	20	120	10	840
Total	353	423	89	201	372	573	184	1033	232	62	1371	43	4936
#21 University Avenue / San Pablo Avenue													
Base	233	945	93	141	681	84	87	986	105	71	906	125	4457
Added	0	0	0	2	4	0	0	6	0	1	46	24	83
Future	50	90	10	20	220	60	90	190	80	10	60	20	900
Total	283	1035	103	163	905	144	177	1182	185	82	1012	169	5440
#22 University Avenue / Martin Luther King Way													
Base	282	902	78	46	702	77	80	679	134	71	727	81	3859
Added	14	12	0	0	0	0	0	9	0	1	60	0	96
Future	30	200	20	30	60	10	30	170	40	10	70	10	680
Total	326	1114	98	76	762	87	110	858	174	82	857	91	4635
#23 University Avenue / Milvia Street													
Base	127	218	44	13	102	74	47	649	108	22	651	33	2088
Added	0	0	0	0	0	0	0	9	0	0	60	0	69
Future	10	10	10	10	10	10	20	180	20	10	80	20	390
Total	137	228	54	23	112	84	67	838	128	32	791	53	2547

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Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume

#24 University Avenue / SB Shattuck Avenue

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	0	0	0	55	576	146	131	374	254	74	642	640	2892
Added	0	0	0	0	34	2	0	9	0	2	58	0	105
Future	0	0	0	30	230	30	40	100	50	10	80	130	700
Total	0	0	0	85	840	178	171	483	304	86	780	770	3697

#25 University Avenue / NB Shattuck Avenue

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	938	0	208	0	0	0	0	454	0	0	433	0	2033
Added	26	0	2	0	0	0	0	9	0	0	34	0	71
Future	150	0	40	0	0	0	0	0	0	0	70	0	260
Total	1114	0	250	0	0	0	0	463	0	0	537	0	2364

#26 University Avenue / Oxford Street

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	278	771	16	32	835	106	306	39	330	9	37	40	2799
Added	0	0	0	0	5	34	7	0	4	0	0	0	50
Future	50	130	0	10	160	30	20	10	20	0	10	10	450
Total	328	901	16	42	1000	170	333	49	354	9	47	50	3299

#27 Univeristy Drive (East Gate) / Gayley Road

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	59	552	0	0	505	52	41	0	81	0	0	0	1290
Added	0	64	0	0	21	0	0	0	0	0	0	0	85
Future	20	110	0	0	60	10	10	0	20	0	0	0	230
Total	79	726	0	0	586	62	51	0	101	0	0	0	1605

#28 Addison Street / Oxford Street

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	32	1006	0	0	952	28	10	0	114	0	0	0	2142
Added	0	0	0	0	9	0	0	0	0	0	0	0	9
Future	10	180	0	0	170	10	0	0	10	0	0	0	380
Total	42	1186	0	0	1131	38	10	0	124	0	0	0	2531

#29 Center Street / SB Shattuck Avenue

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	0	0	0	41	790	126	0	104	179	29	160	0	1429
Added	0	0	0	0	35	0	0	0	0	0	0	0	35
Future	0	0	0	10	230	40	0	50	30	30	40	0	430
Total	0	0	0	51	1055	166	0	154	209	59	200	0	1894

#30 Center Street / NB Shattuck Avenue

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	50	982	86	0	0	0	81	55	0	0	139	58	1451
Added	0	29	0	0	0	0	0	0	0	0	0	0	29
Future	30	110	30	0	0	0	30	40	0	0	40	60	340
Total	80	1121	116	0	0	0	111	95	0	0	179	118	1820

#31 Center Street / Oxford Street

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	87	998	24	19	980	67	33	6	84	37	9	16	2360
Added	0	0	0	0	9	0	0	0	0	0	0	0	9
Future	40	150	10	0	150	30	30	0	30	0	0	0	440
Total	127	1148	34	19	1139	97	63	6	114	37	9	16	2809

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#32 Stadium Rim Road / Gayley Road

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	0	359	19	135	459	0	20	7	15	47	0	232	1293
Added	0	39	7	2	19	0	0	0	0	21	0	25	113
Future	0	90	10	20	50	0	0	0	0	10	0	30	210
Total	0	488	36	157	528	0	20	7	15	78	0	287	1616

#33 Allston Way / Oxford Street

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	46	1002	0	26	1082	75	23	0	110	0	0	0	2364
Added	0	0	0	0	9	0	0	0	0	0	0	0	9
Future	0	190	0	10	160	10	0	0	30	0	0	0	400
Total	46	1192	0	36	1251	85	23	0	140	0	0	0	2773

#34 Kittridge Street / Oxford Street / Fulton Street

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	45	995	0	0	1108	96	51	0	69	0	0	0	2364
Added	0	0	0	0	9	0	0	0	0	0	0	0	9
Future	20	180	0	0	150	30	10	0	20	0	0	0	410
Total	65	1175	0	0	1267	126	61	0	89	0	0	0	2783

#35 Stadium Rim Road / Centennial Drive

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	0	99	140	102	57	0	0	0	0	204	0	146	748
Added	0	0	0	8	0	0	0	0	0	0	0	46	54
Future	0	20	20	20	10	0	0	0	0	10	0	20	100
Total	0	119	160	130	67	0	0	0	0	214	0	212	902

#36 Bancroft Way / Shattuck Avenue

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	30	1186	0	0	949	23	1	0	38	258	97	111	2693
Added	0	29	0	0	35	0	0	0	0	9	0	0	73
Future	10	150	0	0	290	10	0	0	0	30	20	20	530
Total	40	1365	0	0	1274	33	1	0	38	297	117	131	3296

#37 Bancroft Way / Fulton Street

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	18	164	0	0	1066	165	0	0	0	12	287	898	2610
Added	0	0	0	0	4	5	0	0	0	0	4	0	13
Future	10	10	0	0	130	20	0	0	0	10	30	170	380
Total	28	174	0	0	1200	190	0	0	0	22	321	1068	3003

#38 Bancroft Way / Ellsworth Street

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	348	11	0	0	0	100	0	0	0	0	877	6	1342
Added	0	0	0	0	0	0	0	0	0	0	4	0	4
Future	50	0	0	0	0	0	0	0	0	0	230	0	280
Total	398	11	0	0	0	100	0	0	0	0	1111	6	1626

#39 Bancroft Way / Dana Street

Volume Type	NB Left	Thru	Right	SB Left	Thru	Right	EB Left	Thru	Right	WB Left	Thru	Right	Total
Base	0	0	0	0	0	0	0	0	0	282	873	0	1155
Added	0	0	0	0	0	0	0	0	0	0	4	0	4
Future	0	0	0	0	0	0	0	0	0	50	230	0	280
Total	0	0	0	0	0	0	0	0	0	332	1107	0	1439

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Volume     Northbound        Southbound        Eastbound         Westbound    Total
Type    Left Thru Right   Left Thru Right   Left Thru Right   Left Thru Right  Volume


#40 Bancroft Way / Telegraph Avenue
Base     495    0    0     0    0    0     0    0    0     0  675    0    1170
Added      0    0    0     0    0    0     0    0    0     0    4    0       4
Future   130    0    0     0    0    0     0    0    0     0  140    0     270
Total    625    0    0     0    0    0     0    0    0     0  819    0    1444

#41 Bancroft Way / Bowditch Street
Base     191    0    0     0    0    0     0    0    0    99  494    0     784
Added      0    0    0     0    0    0     0    0    0     0    4    0       4
Future    30    0    0     0    0    0     0    0    0    20  110    0     160
Total    221    0    0     0    0    0     0    0    0   119  608    0     948

#42 Bancroft Way / College Avenue
Base     371    0    0     0    0    0     0    0    0    83  226    0     680
Added      0    0    0     0    0    0     0    0    0    15    4    0      19
Future   100    0    0     0    0    0     0    0    0     0   20    0     120
Total    471    0    0     0    0    0     0    0    0    98  250    0     819

#43 Bancroft Way / Piedmont Avenue
Base     152  439    0     0  357  159     0    0    0     0    0    0    1107
Added      0   46    0     0   22   19     0    0    0     0    0    0      87
Future    10   90    0     0   40   10     0    0    0     0    0    0     150
Total    162  575    0     0  419  188     0    0    0     0    0    0    1344

#44 Durant Avenue / Shattuck Avenue
Base      69 1216  120    88 1099   51     9   72   55     0    0    0    2779
Added      0   29    0     0   44    0     0    0    0     0    0    0      73
Future    10  170   60    60  260   10     0   40   10     0    0    0     620
Total     79 1415  180   148 1403   61     9  112   65     0    0    0    3472

#45 Durant Avenue / Fulton Street
Base       0    0    0   527  760    0   137  219   33     0    0    0    1676
Added      0    0    0     0    4    0     0    0    0     0    0    0       4
Future     0    0    0    70   90    0    20  110   30     0    0    0     320
Total      0    0    0   597  854    0   157  329   63     0    0    0    2000

#46 Durant Avenue / Telegraph Avenue
Base       0  362  119     0    0    0   202  690    0     0    0    0    1373
Added      0    0    2     0    0    0     0    0    0     0    0    0       2
Future     0  110   30     0    0    0    20  160    0     0    0    0     320
Total      0  472  151     0    0    0   222  850    0     0    0    0    1695

#47 Durant Avenue / College Avenue
Base       0  189   62    16   56    0   127  268  202     0    0    0     920
Added      0    0    4     0   15    0     0    0    1     0    0    0      20
Future     0   40   20     0    0    0    60   70   40     0    0    0     230
Total      0  229   86    16   71    0   187  339  242     0    0    0    1170
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Volume     Northbound        Southbound        Eastbound         Westbound    Total
Type    Left Thru Right   Left Thru Right   Left Thru Right   Left Thru Right  Volume


#48 Durant Avenue / Piedmont Avenue
Base       0  398    0     0  427    0   179    0  197     0    0    0    1201
Added      0   41    0     0   22    0     5    0    0     0    0    0      68
Future     0   70    0     0   50    0    40    0   40     0    0    0     200
Total      0  509    0     0  499    0   224    0  237     0    0    0    1469

#49 Channing Way / Shattuck Avenue
Base      83 1279   94    19 1089   49    18   76   81   144   97  106    3135
Added      0    3    6     0   44    0     0    0    0    24    0   26     103
Future    10  180   20    50  110   90    30   80   20    30   20   30     670
Total     93 1462  120    69 1243  139    48  156  101   198  117  162    3908

#50 Channing Way / Fulton Street
Base       0    0    0    48  686   61     0  133   38    15  257    0    1238
Added      0    0    0     4    0    0     0    6    0     0   50    0      60
Future     0    0    0    10  100    0     0  110   30    10   70    0     330
Total      0    0    0    62  786   61     0  249   68    25  377    0    1628

#51 Channing Way / Telegraph Avenue
Base      86  410   41     0    0    0    23  144    0     0  227   46     977
Added      0    0    9     0    0    0     0   10    0     0   50    2      71
Future    10   40   30     0    0    0     0   30   80    40   30    0     260
Total     96  450   80     0    0    0    23  184   80    40  307   48    1308

#52 Channing Way / College Avenue
Base      31  189   41     7  206   24     5   95   58   124  141   47     968
Added      3    4    0     0   15    0     0   78   16     1   12    0     129
Future    30   60   30     0   40   10    30   40   40    40   20   30     370
Total     64  253   71     7  261   34    35  213  114   165  173   77    1467

#53 Haste Street / Shattuck Avenue
Base     104 1277    0     0 1208   88     0    0    0   268  336  152    3433
Added      0    8    0     0   51   17     0    0    0    32   67    0     175
Future    30  160    0     0  130   20     0    0    0    40   80   40     500
Total    134 1445    0     0 1389  125     0    0    0   340  483  192    4108

#54 Haste Street / Fulton Street
Base       0    0    0     0  580  154     0    0    0    50  604    0    1388
Added      0    0    0     0    0    0     0    0    0     0   99    0      99
Future     0    0    0     0   70   80     0    0    0    30   60    0     240
Total      0    0    0     0  650  234     0    0    0    80  763    0    1727

#55 Haste Street / Telegraph Avenue
Base     186  476    0     0    0    0     0    0    0     0  470   57    1189
Added      0    9    0     0    0    0     0    0    0     0   99    0     108
Future    50  100    0     0    0    0     0    0    0     0   50   30     230
Total    236  585    0     0    0    0     0    0    0     0  619   87    1527
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Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#56 Haste Street / College Avenue													
Base	88	236	0	0	337	56	0	0	0	90	244	29	1080
Added	2	7	0	0	32	0	0	0	0	0	2	0	43
Future	30	70	0	0	80	30	0	0	0	30	30	40	310
Total	120	313	0	0	449	86	0	0	0	120	276	69	1433
#57 Dwight Way / Martin Luther King Way													
Base	71	821	60	113	860	272	49	444	111	0	0	0	2801
Added	0	0	0	0	7	51	0	10	0	0	0	0	68
Future	10	220	10	20	90	10	20	50	10	0	0	0	440
Total	81	1041	70	133	957	333	69	504	121	0	0	0	3309
#58 Dwight Way / Shattuck Avenue													
Base	0	1273	123	133	1390	0	77	426	200	0	0	0	3622
Added	0	8	0	6	77	0	0	10	0	0	0	0	101
Future	0	160	30	10	140	0	10	50	10	0	0	0	410
Total	0	1441	153	149	1607	0	87	486	210	0	0	0	4133
#59 Dwight Way / Fulton Street													
Base	0	0	62	631	0	0	0	664	15	0	0	0	1372
Added	0	0	0	0	0	0	0	15	0	0	0	0	15
Future	0	0	20	100	0	0	0	60	30	0	0	0	210
Total	0	0	82	731	0	0	0	739	45	0	0	0	1597
#60 Dwight Way / Telegraph Avenue													
Base	0	590	149	0	0	0	130	671	813	0	0	0	2353
Added	0	0	0	0	0	0	9	7	0	0	0	0	16
Future	0	120	10	0	0	0	10	60	100	0	0	0	300
Total	0	710	159	0	0	0	149	738	913	0	0	0	2669
#61 Dwight Way / College Avenue													
Base	0	294	52	49	374	0	34	483	129	0	0	0	1415
Added	0	9	0	0	32	0	1	6	0	0	0	0	48
Future	0	50	60	20	80	0	30	0	10	0	0	0	250
Total	0	353	112	69	486	0	65	489	139	0	0	0	1713
#62 Dwight Way / Piedmont Avenue / Warring Street													
Base	0	527	1	8	353	0	132	162	307	53	0	112	1655
Added	0	10	0	0	54	0	0	0	6	0	0	0	70
Future	0	80	20	10	30	0	20	10	40	30	0	10	250
Total	0	617	21	18	437	0	152	172	353	83	0	122	1975
#63 Dwight Avenue / Prospect Street													
Base	0	0	0	27	0	165	187	128	0	0	93	16	616
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	10	0	20	20	20	0	0	20	0	90
Total	0	0	0	37	0	185	207	148	0	0	113	16	706

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Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#64 Adeline Street / Ward Avenue / Shattuck Avenue													
Base	0	690	5	0	957	825	903	0	2	0	0	0	3382
Added	0	4	0	0	38	36	4	0	0	0	0	0	82
Future	0	50	0	0	50	110	130	0	0	0	0	0	340
Total	0	744	5	0	1045	971	1037	0	2	0	0	0	3804
#65 Derby Street / Warring Street													
Base	0	0	0	765	0	30	7	62	0	0	75	780	1719
Added	0	0	0	60	0	0	0	0	0	0	0	10	70
PassBy	0	0	0	110	0	10	0	0	0	0	0	120	240
Total	0	0	0	935	0	40	7	62	0	0	75	910	2029
#66 Derby Street / Claremont Blvd.													
Base	4	0	225	0	0	0	0	872	11	31	741	0	1884
Added	0	0	0	0	0	0	0	60	0	0	10	0	70
PassBy	0	0	0	0	0	0	0	120	0	0	120	0	240
Total	4	0	225	0	0	0	0	1052	11	31	871	0	2194
#67 Ashby Avenue / Seventh Street													
Base	134	404	68	107	270	476	263	546	113	98	774	31	3284
Added	0	0	0	0	0	0	0	5	0	0	39	0	44
Future	60	60	10	90	30	0	30	60	60	20	60	70	550
Total	194	464	78	197	300	476	293	611	173	118	873	101	3878
#68 Ashby Avenue / San Pablo Avenue													
Base	162	999	79	185	873	113	86	592	170	20	612	143	4034
Added	0	1	1	0	1	16	0	5	0	15	23	0	62
Future	20	190	90	20	320	30	20	90	50	40	90	30	990
Total	182	1190	170	205	1194	159	106	687	220	75	725	173	5086
#69 Ashby Avenue / Adeline Street													
Base	92	693	85	31	700	169	135	491	39	68	547	39	3089
Added	0	1	0	0	6	30	4	2	0	0	0	0	43
Future	60	70	10	10	10	80	50	160	20	10	50	10	540
Total	152	764	95	41	716	279	189	653	59	78	597	49	3672
#70 Ashby Avenue / Shattuck Avenue													
Base	52	556	30	200	585	56	33	536	40	32	541	176	2837
Added	0	3	0	10	26	0	0	2	0	0	0	0	41
Future	10	10	10	20	20	10	10	170	20	10	60	20	370
Total	62	569	40	230	631	66	43	708	60	42	601	196	3248
#71 Ashby Avenue / Telegraph Avenue													
Base	210	675	75	176	902	63	68	531	184	148	642	99	3773
Added	0	0	0	0	0	0	0	12	0	0	0	0	12
Future	30	80	10	10	60	10	30	110	50	20	50	20	480
Total	240	755	85	186	962	73	98	653	234	168	692	119	4265

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-------------------------------------------------------------------------------
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Volume   Northbound      Southbound      Eastbound       Westbound     Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#72 Ashby Avenue / College Avenue
Base    75  293   68  159  279   58   15  683   87   10  466  151   2344
Added    0    3    0   12   20    0    2   10    0    0    0    3     50
Future  10   60   10   20   60   10   10  120   20   10   60   30    420
Total   85  356   78  191  359   68   27  813  107   20  526  184   2814

#73 Ashby Avenue / Claremont Avenue
Base    45  373  189  432  285   49   47  592    5   66  504  232   2819
Added    0    0    0   60    0    0    0   22    0    0    3   10     95
Future  10   60   20   60   50   20   40  130   10   10   60   20    490
Total   55  433  209  552  335   69   87  744   15   76  567  262   3404

#74 Tunnel Road / SR 13
Base     0 1130  256  534 1095    0    0    0    0  128    0  155   3298
Added    0   13    0   37   45    0    0    0    0    0    0    0     95
Future   0   80    0   70  140    0    0    0    0    0    0   10    300
Total    0 1223  256  641 1280    0    0    0    0  128    0  165   3693

#1004
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    0    0    7    0   14    2    6    0    0   32    1     62
Total    0    0    0    7    0   14    2    6    0    0   32    1     62

#1005
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    0    0   14    0   31    0   13    0    0    2    0     60
Total    0    0    0   14    0   31    0   13    0    0    2    0     60

#1101 I-880 South/ I-80 West CHECK
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    6    0    0   44    0    0    0    0    0    0    0     50
Total    0    6    0    0   44    0    0    0    0    0    0    0     50

#1121 Highland Place/Heart Avenue/Cyclotron
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    0    0    0    0    0    0   13    0    0   58    0     71
Total    0    0    0    0    0    0    0   13    0    0   58    0     71

#1122 Stadium Rim Road/ Canyon Road
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0    0    0    0    0    0    0    0    0    0    0    0      0
```

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-------------------------------------------------------------------------------
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                        Impact Analysis Report
                           Level Of Service

Intersection                          Base          Future        Change
                                    Del/   V/      Del/   V/         in
                                 LOS Veh    C   LOS Veh    C
#  1 Marin Avenue / San Pablo Avenu  D  41.6 0.874  F  85.0 1.130  +43.352 D/V

#  2 Marin Avenue / The Alameda      B  14.1 0.574  C  21.7 0.855  + 7.589 D/V

#  3 Gilman Street / Sixth Street    E  60.6 0.864  F 125.7 1.260  +65.025 D/V

#  4 Gilman Street / San Pablo Aven  D  37.3 0.724  E  62.4 1.036  +25.151 D/V

#  5 Rose Street / Shattuck Avenue   B  11.0 0.514  B  16.1 0.755  + 5.119 D/V

#  6 Cedar Street / Martin Luther K  C  21.3 0.792  D  47.0 1.065  +25.708 D/V

#  7 Cedar Street / Shattuck Avenue  B  11.5 0.580  B  16.0 0.755  + 4.521 D/V

#  8 Cedar Street / Oxford Street    B  19.0 0.711  D  40.9 1.002  +21.963 D/V

#  9 Cedar Street / Euclid Avenue    B  11.5 0.428  B  13.9 0.635  + 2.431 D/V

# 10 Grizzly Peak Blvd / Centennial  C  15.4 0.738  C  22.7 0.875  + 0.137 V/C

# 11 Hearst Avenue / Shattuck Avenu  B  13.5 0.478  C  22.2 0.858  + 8.671 D/V

# 12 Hearst Avenue / Oxford Avenue   D  36.1 0.883  D  52.2 0.929  +16.049 D/V

# 13 Hearst Avenue / Spruce Street   B   2.4 0.000  C   2.6 0.000  + 0.000 V/C

# 14 Hearst Avenue / Arch Street /   B   1.6 0.000  C   2.0 0.000  + 0.000 V/C

# 15 Hearst Avenue / Scenic Avenue   B   0.7 0.000  B   0.9 0.000  + 0.000 V/C

# 16 Hearst Avenue / Euclid Avenue   B  18.4 0.458  B  17.2 0.631   -1.256 D/V

# 17 Hearst Avenue / Le Roy Avenue   B   2.3 0.000  C   2.5 0.000  + 0.000 V/C

# 18 Hearst Avenue / Gayley Road /   B  17.5 0.778  E  67.1 1.108  +49.606 D/V

# 19 Berkeley Way / Oxford Street    A   7.2 0.419  A   9.3 0.488  + 2.084 D/V

# 20 University Avenue / Sixth Stre  F  81.2 0.993  F  99.2 1.183  +18.002 D/V

# 21 University Avenue / San Pablo   F 124.2 0.817  F 171.5 1.012  +47.307 D/V

# 22 University Avenue / Martin Lut  C  29.5 0.722  D  40.6 0.930  +11.116 D/V

# 23 University Avenue / Milvia Str  B  16.3 0.448  B  18.8 0.572  + 2.537 D/V
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Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 24 University Avenue / SB Shattuc	B 18.2 0.585	B 17.7 0.758	-0.467 D/V
# 25 University Avenue / NB Shattuc	B 16.8 0.449	B 17.5 0.533	+ 0.714 D/V
# 26 University Avenue / Oxford Str	B 17.2 0.650	C 22.9 0.783	+ 5.632 D/V
# 27 Univeristy Drive (East Gate)	C 1.5 0.000	D 2.2 0.000	+ 0.000 V/C
# 28 Addison Street / Oxford Street	C 0.8 0.000	C 0.8 0.000	+ 0.000 V/C
# 29 Center Street / SB Shattuck Av	B 14.0 0.469	B 17.0 0.612	+ 3.054 D/V
# 30 Center Street / NB Shattuck Av	A 7.3 0.409	A 9.6 0.530	+ 2.306 D/V
# 31 Center Street / Oxford Street	A 7.3 0.415	B 10.1 0.522	+ 2.785 D/V
# 32 Stadium Rim Road / Gayley Road	D 26.8 0.917	F 73.1 1.196	+ 0.278 V/C
# 33 Allston Way / Oxford Street	D 4.9 0.000	E 5.5 0.000	+ 0.000 V/C
# 34 Kittridge Street / Oxford Stre	F 5.3 0.000	F 13.7 0.000	+ 0.000 V/C
# 35 Stadium Rim Road / Centennial	B 10.5 0.474	B 12.4 0.595	+ 0.121 V/C
# 36 Bancroft Way / Shattuck Avenue	B 12.1 0.637	B 16.7 0.734	+ 4.594 D/V
# 37 Bancroft Way / Fulton Street	A 6.6 0.380	A 8.8 0.432	+ 2.258 D/V
# 38 Bancroft Way / Ellsworth Stree	C 3.7 0.000	D 4.9 0.000	+ 0.000 V/C
# 39 Bancroft Way / Dana Street	A 0.0 0.000	A 0.0 0.000	+ 0.000 V/C
# 40 Bancroft Way / Telegraph Avenu	B 17.3 0.307	B 18.2 0.380	+ 0.878 D/V
# 41 Bancroft Way / Bowditch Street	B 11.2 0.431	B 12.9 0.537	+ 0.106 V/C
# 42 Bancroft Way / College Avenue	B 11.4 0.511	B 14.2 0.660	+ 0.149 V/C
# 43 Bancroft Way / Piedmont Avenue	C 16.3 0.733	D 29.6 0.931	+ 0.198 V/C
# 44 Durant Avenue / Shattuck Avenu	B 11.6 0.617	B 18.8 0.779	+ 7.286 D/V
# 45 Durant Avenue / Fulton Street	A 6.9 0.346	A 9.8 0.424	+ 2.866 D/V
# 46 Durant Avenue / Telegraph Aven	B 13.0 0.350	B 13.2 0.435	+ 0.200 D/V
# 47 Durant Avenue / College Avenue	B 13.2 0.311	B 13.7 0.388	+ 0.518 D/V
# 48 Durant Avenue / Piedmont Avenu	C 15.9 0.668	D 27.3 0.857	+ 0.190 V/C

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Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 49 Channing Way / Shattuck Avenue	A 5.3 0.699	A 9.2 0.791	+ 3.854 D/V
# 50 Channing Way / Fulton Street	C 15.6 0.642	D 26.6 0.828	+ 0.186 V/C
# 51 Channing Way / Telegraph Avenu	B 12.2 0.338	B 16.4 XXXXX	+ 4.166 D/V
# 52 Channing Way / College Avenue	A 9.7 0.402	B 15.8 0.615	+ 6.153 D/V
# 53 Haste Street / Shattuck Avenue	A 9.0 0.655	B 14.7 0.950	+ 5.701 D/V
# 54 Haste Street / Fulton Street	B 17.2 0.434	C 22.8 0.543	+ 5.515 D/V
# 55 Haste Street / Telegraph Avenu	B 12.1 0.375	B 14.4 0.482	+ 2.290 D/V
# 56 Haste Street / College Avenue	A 9.0 0.354	B 11.4 0.489	+ 2.418 D/V
# 57 Dwight Way / Martin Luther Kin	B 14.8 0.793	C 23.7 0.961	+ 8.957 D/V
# 58 Dwight Way / Shattuck Avenue	D 43.3 0.807	B 15.7 0.912	-27.589 D/V
# 59 Dwight Way / Fulton Street	B 13.7 0.526	B 17.1 0.610	+ 3.466 D/V
# 60 Dwight Way / Telegraph Avenue	B 19.4 0.834	C 29.6 0.948	+10.227 D/V
# 61 Dwight Way / College Avenue	B 14.3 0.484	B 14.2 0.596	-0.080 D/V
# 62 Dwight Way / Piedmont Avenue /	B 12.8 0.380	B 13.4 0.447	+ 0.515 D/V
# 63 Dwight Avenue / Prospect Stree	B 5.4 0.000	B 5.6 0.000	+ 0.000 V/C
# 64 Adeline Street / Ward Avenue /	C 21.3 0.844	C 31.6 0.985	+10.329 D/V
# 65 Derby Street / Warring Street	F 157.8 1.327	F 259.9 1.627	+ 0.300 V/C
# 66 Derby Street / Claremont Blvd.	B 14.8 0.690	C 22.8 0.798	+ 8.002 D/V
# 67 Ashby Avenue / Seventh Street	D 46.8 0.911	F 88.2 1.109	+41.437 D/V
# 68 Ashby Avenue / San Pablo Avenu	C 30.1 0.694	D 46.1 0.961	+15.969 D/V
# 69 Ashby Avenue / Adeline Street	D 46.4 0.490	D 39.2 0.605	-7.212 D/V
# 70 Ashby Avenue / Shattuck Avenue	C 26.3 0.709	D 36.5 0.723	+10.185 D/V
# 71 Ashby Avenue / Telegraph Avenu	C 24.9 0.869	C 26.8 0.989	+ 1.818 D/V
# 72 Ashby Avenue / College Avenue	C 25.8 0.912	D 37.1 0.963	+11.374 D/V

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                          UC Berkeley LRDP EIR
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Intersection                        Base          Future        Change
                                    Del/    V/     Del/    V/      in
                               LOS  Veh     C   LOS Veh     C
# 73 Ashby Avenue / Claremont Avenu  C  21.8 0.638   C  24.8 0.744  + 3.001 D/V

# 74 Tunnel Road / SR 13             B  12.9 0.738   B  14.6 0.849  + 1.693 D/V
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                          UC Berkeley LRDP EIR
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                             PM Peak Hour
------------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
******************************************************************************
Intersection #1 Marin Avenue / San Pablo Avenue
******************************************************************************
Cycle (sec):        90          Critical Vol./Cap. (X):       1.130
Loss Time (sec):    16 (Y+R =  4 sec) Average Delay (sec/veh):    85.0
Optimal Cycle:      180          Level Of Service:               F
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Protected        Protected        Protected        Protected
Rights:        Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:    227 1022  114   169  659   18    18  656  137   145  736  154
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 227 1022  114   169  659   18    18  656  137   145  736  154
Added Vol:     0   27    0     0    6    0     0    0    0     0    2   13
Future:       30  209   50    90  221   28    27  181   10    47  163   90
Initial Fut: 257 1258  164   259  886   46    45  837  147   192  901  257
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 257 1258  164   259  886   46    45  837  147   192  901  257
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 257 1258  164   259  886   46    45  837  147   192  901  257
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00

MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 257 1258  164   259  886   46    45  837  147   192  901  257
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.93 0.93  0.95 0.94 0.94  0.95 0.93 0.93  0.95 0.92 0.92
Lanes:      1.00 1.77 0.23  1.00 1.90 0.10  1.00 1.70 0.30  1.00 1.56 0.44
Final Sat.: 1805 3139  409  1805 3408  177  1805 3003  527  1805 2716  775
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.14 0.40 0.40  0.14 0.26 0.26  0.02 0.28 0.28  0.11 0.33 0.33
Crit Moves:      ****           ****                ****           ****
Green/Cycle:0.17 0.35 0.35  0.13 0.31 0.31  0.02 0.25 0.25  0.09 0.32 0.32
Volume/Cap: 0.84 1.13 1.13  1.13 0.84 0.84  1.05 1.13 1.13  1.13 1.05 1.05
Delay/Veh:  53.8 98.2 98.2 138.3 34.5 34.5 195.3  107 106.9 149.1 70.9 70.9
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 53.8 98.2 98.2 138.3 34.5 34.5 195.3  107 106.9 149.1 70.9 70.9
DesignQueue: 11   45    6    12   33    2     2   34    6     9   33   10
******************************************************************************
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UC Berkeley LRDP EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #2 Marin Avenue / The Alameda
****
Cycle (sec):   70   Critical Vol./Cap. (X):   0.855
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   21.7
Optimal Cycle: 71   Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|--------------||--------------||--------------||--------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 25   25   25   25   25   25   23   23   23   23   23   23
Lanes: 0 1 0 1 0   0 1 0 1 0   0 1 0 1 0   0 1 0 1 0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 316   322   1   43   178   77   50   534   193   17   480   69
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 316   322   1   43   178   77   50   534   193   17   480   69
Added Vol: 12   3   0   0   1   0   0   0   0   0   3   0
Future: 130   110   10   10   30   70   20   200   80   10   70   10
Initial Fut: 458   435   11   53   209   147   70   734   273   27   553   79
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 458   435   11   53   209   147   70   734   273   27   553   79
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 458   435   11   53   209   147   70   734   273   27   553   79
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   458   435   11   53   209   147   70   734   273   27   553   79
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.61 0.61 0.61 0.71 0.71 0.71 0.79 0.79 0.79 0.81 0.81 0.81
Lanes: 1.00 0.98 0.02 0.26 1.02 0.72 0.13 1.36 0.51 0.08 1.68 0.24
Final Sat.: 1153 1124   28   348 1372   965   195 2040   759   125 2570   367
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat: 0.40 0.39 0.39 0.15 0.15 0.15 0.36 0.36 0.36 0.22 0.22 0.22
Crit Moves: ****   ****
Green/Cycle: 0.46 0.46 0.46 0.46 0.46 0.46 0.42 0.42 0.42 0.42 0.42 0.42
Volume/Cap: 0.85 0.83 0.83 0.33 0.33 0.33 0.85 0.85 0.85 0.51 0.51 0.51
Delay/Veh: 25.5 23.8 23.8 12.5 12.5 12.5 25.9 25.9 25.9 16.4 16.4 16.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 25.5 23.8 23.8 12.5 12.5 12.5 25.9 25.9 25.9 16.4 16.4 16.4
DesignQueue: 10   10   0   1   4   3   2   18   7   1   13   2
****

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #3 Gilman Street / Sixth Street
****
Cycle (sec):   70   Critical Vol./Cap. (X):   1.260
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   125.7
Optimal Cycle: 180   Level Of Service: F
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|--------------||--------------||--------------||--------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 19   19   19   19   19   19   19   19   19   19   19   19
Lanes: 0 0 1! 0 0   0 1 0 1 0   0 0 1! 0 0   0 0 1! 0 0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol: 346   46   159   24   47   52   28   497   109   53   489   11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 346   46   159   24   47   52   28   497   109   53   489   11
Added Vol: 0   0   0   0   0   0   0   0   0   0   0   0
PasserByVol: 120   0   93   20   90   0   0   193   180   122   41   0
Initial Fut: 466   46   252   44   137   52   28   690   289   175   530   11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 466   46   252   44   137   52   28   690   289   175   530   11
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 466   46   252   44   137   52   28   690   289   175   530   11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   466   46   252   44   137   52   28   690   289   175   530   11
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.96 0.65 0.65 0.78 0.78 0.78 0.94 0.94 0.94 0.61 0.61 0.61
Lanes: 0.52 0.07 0.41 0.38 1.17 0.45 0.03 0.68 0.29 0.24 0.74 0.02
Final Sat.:   936   92   506   563 1753   665   49 1219   510   283   858   18
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat: 0.50 0.50 0.50 0.08 0.08 0.08 0.57 0.57 0.57 0.62 0.62 0.62
Crit Moves: ****   ****
Green/Cycle: 0.27 0.27 0.31 0.31 0.31 0.31 0.63 0.63 0.63 0.63 0.63 0.63
Volume/Cap: 1.83 1.83 1.58 0.25 0.25 0.25 0.90 0.90 0.90 0.98 0.98 0.98
Delay/Veh: 409.8   410 296.2 18.5 18.5 18.5 22.7 22.7 22.7 42.1 42.1 42.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 409.8   410 296.2 18.5 18.5 18.5 22.7 22.7 22.7 42.1 42.1 42.1
DesignQueue: 15   1   7   1   4   1   0   12   5   3   9   0
****

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```
                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
```

```
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #4 Gilman Street / San Pablo Avenue
********************************************************************************
Cycle (sec):          100       Critical Vol./Cap. (X):          1.036
Loss Time (sec):       12 (Y+R =  5 sec) Average Delay (sec/veh):      62.4
Optimal Cycle:        180       Level Of Service:                   E
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   4   35   35    4   35   35   31   31   31   31   31   31
Lanes:        1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:    140 1057   87  126  830  112  174  345  155   40  233   82
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 140 1057   87  126  830  112  174  345  155   40  233   82
Added Vol:     0   27    0    0    6    0    0    0    0    0    0    0
PasserByVol:  60  183   40   20  180   30  107   50  120   10   30   44
Initial Fut: 200 1267  127  146 1016  142  281  395  275   50  263  126
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  200 1267  127  146 1016  142  281  395  275   50  263  126
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 200 1267  127  146 1016  142  281  395  275   50  263  126
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  200 1267  127  146 1016  142  281  395  275   50  263  126
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.94 0.94 0.95 0.93 0.93 0.57 0.57 0.57 0.69 0.69 0.69
Lanes:      1.00 1.82 0.18 1.00 1.75 0.25 0.59 0.83 0.58 0.11 0.60 0.29
Final Sat.: 1805 3235  324 1805 3110  435  640  900  626  149  785  376
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.11 0.39 0.39 0.08 0.33 0.33 0.44 0.44 0.44 0.33 0.33 0.33
Crit Moves:      ****          ****               ****
Green/Cycle: 0.11 0.38 0.38 0.08 0.35 0.35 0.42 0.42 0.42 0.42 0.42 0.42
Volume/Cap: 1.04 1.04 1.04 1.04 0.93 0.93 1.04 1.04 1.04 0.79 0.79 0.79
Delay/Veh: 121.7 65.4 65.4 131.7 45.3 45.3 68.2 68.2 68.2 35.9 35.9 35.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 121.7 65.4 65.4 131.7 45.3 45.3 68.2 68.2 68.2 35.9 35.9 35.9
DesignQueue:  10   48    5    8   40    6   10   14    9    2    9    4
********************************************************************************
```

```
                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
```

```
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #5 Rose Street / Shattuck Avenue
********************************************************************************
Cycle (sec):           70       Critical Vol./Cap. (X):          0.755
Loss Time (sec):        8 (Y+R =  4 sec) Average Delay (sec/veh):      16.1
Optimal Cycle:         52       Level Of Service:                   B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  17   17   17   17   17   17   27   27   27   27   27   27
Lanes:        1  0  1  1  0   1  0  1  1  0   0  1  0  0  1   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    159  641   14  112  444   26   69  253   49   29  214  228
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 159  641   14  112  444   26   69  253   49   29  214  228
Added Vol:     0    2    0    0    0    0    0    0    0    0    0    0
Future:       60  230   20   10  220   10   10   10   30   20   10   10
Initial Fut: 219  873   34  122  664   36   79  263   79   49  224  238
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  219  873   34  122  664   36   79  263   79   49  224  238
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 219  873   34  122  664   36   79  263   79   49  224  238
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  219  873   34  122  664   36   79  263   79   49  224  238
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.32 0.94 0.94 0.23 0.94 0.94 0.77 0.77 0.85 0.88 0.88 0.88
Lanes:      1.00 1.93 0.07 1.00 1.90 0.10 0.23 0.77 1.00 0.10 0.44 0.46
Final Sat.:  604 3454  135  433 3397  184  338 1127 1615  160  731  777
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.36 0.25 0.25 0.28 0.20 0.20 0.23 0.23 0.05 0.31 0.31 0.31
Crit Moves: ****                                                ****
Green/Cycle: 0.48 0.48 0.48 0.48 0.48 0.48 0.41 0.41 0.41 0.41 0.41 0.41
Volume/Cap: 0.76 0.53 0.53 0.59 0.41 0.41 0.58 0.58 0.12 0.76 0.76 0.76
Delay/Veh:  25.6 13.0 13.0 17.5 11.9 11.9 17.5 17.5 13.1 22.7 22.7 22.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  25.6 13.0 13.0 17.5 11.9 11.9 17.5 17.5 13.1 22.7 22.7 22.7
DesignQueue:   5   19    1    3   14    1    2    6    2    1    6    6
********************************************************************************
```

```
CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31         Page 12-1
--------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                      2020 No Project Conditions
                           PM Peak Hour
--------------------------------------------------------------------------
                  Level Of Service Computation Report
         2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #6 Cedar Street / Martin Luther King Way
**************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        1.065
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):   47.0
Optimal Cycle:     180          Level Of Service:                 D
**************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted       Permitted       Permitted
Rights:          Include          Include         Include         Include
Min. Green:  20   20   20     20   20   20    20   20   20    20   20   20
Lanes:        0  0 1! 0  0     0  0 1! 0  0    0  0 1! 0  0    0  0 1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    53  614   65     30  541   12    20  297   57    68  296   65
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 53  614   65     30  541   12    20  297   57    68  296   65
Added Vol:    0   16    0      0    1    0     0    1    0     0    1    0
Future:      20  210   30     20   80   10    10  110   10    10   30   10
Initial Fut: 73  840   95     50  622   22    30  408   67    78  327   75
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  73  840   95     50  622   22    30  408   67    78  327   75
Reduct Vol:   0    0    0      0    0    0     0    0    0     0    0    0
Reduced Vol: 73  840   95     50  622   22    30  408   67    78  327   75
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  73  840   95     50  622   22    30  408   67    78  327   75
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900   1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.90 0.90 0.90   0.89 0.89 0.89  0.93 0.93 0.93  0.73 0.73 0.73
Lanes:      0.07 0.84 0.09   0.07 0.90 0.03  0.06 0.81 0.13  0.16 0.68 0.16
Final Sat.:  124 1427  161    121 1508   53   106 1435  236   226  947  217
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.59 0.59 0.59   0.41 0.41 0.41  0.28 0.28 0.28  0.35 0.35 0.35
Crit Moves:      ****                                            ****
Green/Cycle:0.55 0.55 0.55   0.55 0.55 0.55  0.32 0.32 0.32  0.32 0.32 0.32
Volume/Cap: 1.07 1.07 1.07   0.75 0.75 0.75  0.88 0.88 0.88  1.07 1.07 1.07
Delay/Veh:  58.1 58.1 58.1   12.9 12.9 12.9  37.7 37.7 37.7  82.8 82.8 82.8
User DelAdj:1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 58.1 58.1 58.1   12.9 12.9 12.9  37.7 37.7 37.7  82.8 82.8 82.8
DesignQueue:  1   16    2      1   11    0     1   11    2     2    9    2
**************************************************************************


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CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31         Page 13-1
--------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                      2020 No Project Conditions
                           PM Peak Hour
--------------------------------------------------------------------------
                  Level Of Service Computation Report
         2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #7 Cedar Street / Shattuck Avenue
**************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        0.755
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):   16.0
Optimal Cycle:      51          Level Of Service:                 B
**************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted       Permitted       Permitted
Rights:          Include          Include         Include         Include
Min. Green:  20   20   20     20   20   20    22   22   22    22   22   22
Lanes:        1  0 1  1  0     1  0 1  1  0    1  0 0 1  0    1  0 0 1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:   138  795   56    144  619   72    86  275   67    59  341  150
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:138  795   56    144  619   72    86  275   67    59  341  150
Added Vol:    0    2    0      0    0    0     0    1    0     0    1    0
Future:      20  230   40     20  210   10    10   80   40    60   20   40
Initial Fut:158 1027   96    164  829   82    96  356  107   119  362  190
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 158 1027   96    164  829   82    96  356  107   119  362  190
Reduct Vol:   0    0    0      0    0    0     0    0    0     0    0    0
Reduced Vol:158 1027   96    164  829   82    96  356  107   119  362  190
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 158 1027   96    164  829   82    96  356  107   119  362  190
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900   1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.31 0.94 0.94   0.24 0.94 0.94  0.18 0.97 0.97  0.25 0.95 0.95
Lanes:      1.00 1.83 0.17   1.00 1.82 0.18  1.00 0.77 0.23  1.00 0.66 0.34
Final Sat.:  595 3258  305    462 3242  321   346 1410  424   473 1181  620
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.27 0.32 0.32   0.36 0.26 0.26  0.28 0.25 0.25  0.25 0.31 0.31
Crit Moves:           ****         ****                          ****
Green/Cycle:0.54 0.53 0.53   0.53 0.53 0.53  0.34 0.34 0.34  0.34 0.34 0.34
Volume/Cap: 0.49 0.59 0.59   0.67 0.48 0.48  0.82 0.75 0.75  0.74 0.91 0.91
Delay/Veh:   7.5  3.9  3.9   16.3  3.2  3.2  64.7 27.0 27.0  45.5 39.9 39.9
User DelAdj:1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  7.5  3.9  3.9   16.3  3.2  3.2  64.7 27.0 27.0  45.5 39.9 39.9
DesignQueue:  3   19    2      3   15    1     2    9    3     3    9    5
**************************************************************************


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                         UC Berkeley LRDP EIR
                      2020 No Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #8 Cedar Street / Oxford Street
**************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        1.002
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   40.9
Optimal Cycle:      142          Level Of Service:                 D
**************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16   16    16   16   16    16   16   16    16   16   16
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     91  464   81    17  196   17    18  307   57    61  340   31
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  91  464   81    17  196   17    18  307   57    61  340   31
Added Vol:     1    0    0     0    0    0     0    0    0     0    0    0
future:       40   80   20    10   10    0    20  120   40    50  100   10
Initial Fut: 132  544  101    27  206   17    38  427   97   111  440   41
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 132  544  101    27  206   17    38  427   97   111  440   41
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 132  544  101    27  206   17    38  427   97   111  440   41
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 132  544  101    27  206   17    38  427   97   111  440   41
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.88 0.88 0.88  0.90 0.90 0.90  0.93 0.93 0.93  0.75 0.75 0.75
Lanes:      0.17 0.70 0.13  0.11 0.82 0.07  0.07 0.76 0.17  0.19 0.74 0.07
Final Sat.:  284 1170  217   185 1412  117   119 1337  304   268 1062   99
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.46 0.46 0.46  0.15 0.15 0.15  0.32 0.32 0.32  0.41 0.41 0.41
Crit Moves:      ****                                           ****
Green/Cycle: 0.46 0.46 0.46 0.46 0.46 0.46 0.41 0.41 0.41 0.41 0.41 0.41
Volume/Cap: 1.00 1.00 1.00  0.31 0.31 0.31  0.77 0.77 0.77  1.00 1.00 1.00
Delay/Veh:  50.3 50.3 50.3  12.0 12.0 12.0  24.3 24.3 24.3  56.7 56.7 56.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 50.3 50.3 50.3  12.0 12.0 12.0  24.3 24.3 24.3  56.7 56.7 56.7
DesignQueue:  3   12    2     1    4    0     1   10    2     3   10    1
**************************************************************************
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                         UC Berkeley LRDP EIR
                      2020 No Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #9 Cedar Street / Euclid Avenue
**************************************************************************
Cycle (sec):        60          Critical Vol./Cap. (X):        0.635
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):   13.9
Optimal Cycle:       42          Level Of Service:                 B
**************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  17   17   17    17   17   17    17   17   17    17   17    0
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     90  226   29     7  127   44    51  180   49    18   91    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  90  226   29     7  127   44    51  180   49    18   91    0
Added Vol:     0    0    0     0    0    0     3    0    0     0    0    0
Future:       50   30    0     0   10   20    40  100   40    10   70    0
Initial Fut: 140  256   29     7  137   64    94  280   89    28  161    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 140  256   29     7  137   64    94  280   89    28  161    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 140  256   29     7  137   64    94  280   89    28  161    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 140  256   29     7  137   64    94  280   89    28  161    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.82 0.82 0.82  0.94 0.94 0.94  0.87 0.87 0.87  0.91 0.91 1.00
Lanes:      0.33 0.60 0.07  0.03 0.66 0.31  0.20 0.61 0.19  0.15 0.85 0.00
Final Sat.:  516  944  107    60 1181  552   337 1004  319   256 1473    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.27 0.27 0.27  0.12 0.12 0.12  0.28 0.28 0.28  0.11 0.11 0.00
Crit Moves:      ****                            ****
Green/Cycle: 0.43 0.43 0.43 0.43 0.43 0.43 0.44 0.44 0.44 0.44 0.44 0.00
Volume/Cap: 0.63 0.63 0.63  0.27 0.27 0.27  0.63 0.63 0.63  0.25 0.25 0.00
Delay/Veh:  15.5 15.5 15.5  11.3 11.3 11.3  14.9 14.9 14.9  10.8 10.8  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 15.5 15.5 15.5  11.3 11.3 11.3  14.9 14.9 14.9  10.8 10.8  0.0
DesignQueue:  3    5    1     0    3    1     2    6    2     1    3    0
**************************************************************************
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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #10 Grizzly Peak Blvd / Centennial Drive
********************************************************************************
Cycle (sec):          100          Critical Vol./Cap. (X):           0.875
Loss Time (sec):        0 (Y+R =  4 sec) Average Delay (sec/veh):      22.7
Optimal Cycle:          0          Level Of Service:                    C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0      0    0    0      0    0    0      0    0    0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:     162   65  250    33   30    8     3  159   45    22  111   25
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  162   65  250    33   30    8     3  159   45    22  111   25
Added Vol:      7    0   20     0    0    0     0    0    0     2    0    0
Future:        10    0   30     0    0    0     0   20   20    10   10    0
Initial Fut:  179   65  300    33   30    8     3  179   65    34  121   25
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90  0.90 0.90 0.90
PHF Volume:   199   72  333    37   33    9     3  199   72    38  134   28
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  199   72  333    37   33    9     3  199   72    38  134   28
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   199   72  333    37   33    9     3  199   72    38  134   28
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:       0.33 0.12 0.55  0.47 0.42 0.11  0.01 0.73 0.26  0.19 0.67 0.14
Final Sat.:   227   82  381   239  217   58     7  414  150   103  367   76
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.88 0.88 0.88  0.15 0.15 0.15  0.48 0.48 0.48  0.37 0.37 0.37
Crit Moves:  ****              ****              ****              ****
Delay/Veh:   31.8 31.8 31.8  10.3 10.3 10.3  13.7 13.7 13.7  12.3 12.3 12.3
Delay Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  31.8 31.8 31.8  10.3 10.3 10.3  13.7 13.7 13.7  12.3 12.3 12.3
LOS by Move:   D    D    D     B    B    B     B    B    B     B    B    B
ApproachDel:       31.8             10.3             13.7             12.3
Delay Adj:         1.00             1.00             1.00             1.00
ApprAdjDel:        31.8             10.3             13.7             12.3
LOS by Appr:         D                B                B                B
********************************************************************************
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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #11 Hearst Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):           75          Critical Vol./Cap. (X):           0.858
Loss Time (sec):        8 (Y+R =  4 sec) Average Delay (sec/veh):      22.2
Optimal Cycle:         74          Level Of Service:                    C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   22   22   22     22   22   22     22   22   22     22   22   22
Lanes:        1  0  1  1  0    1  0  1  1  0    0  1  0  1  0    0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      34  715   63   117  537   54    67  232   20   122  321  136
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   34  715   63   117  537   54    67  232   20   122  321  136
Added Vol:      0    0    0     0    0    0     0    2    0    35   17    2
Future:        20  160   30    60  240   40    50   20   20    50   20   90
Initial Fut:   54  875   93   177  777   94   117  254   40   207  358  228
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    54  875   93   177  777   94   117  254   40   207  358  228
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   54  875   93   177  777   94   117  254   40   207  358  228
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    54  875   93   177  777   94   117  254   40   207  358  228
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.25 0.94 0.94  0.21 0.93 0.93  0.55 0.55 0.55  0.64 0.64 0.64
Lanes:       1.00 1.81 0.19  1.00 1.78 0.22  0.57 1.24 0.19  0.52 0.90 0.58
Final Sat.:   481 3217  342   401 3169  383   591 1283  202   637 1101  701
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.27 0.27  0.44 0.25 0.25  0.20 0.20 0.20  0.33 0.33 0.33
Crit Moves:                   ****                              ****
Green/Cycle: 0.41 0.41 0.41  0.41 0.41 0.41  0.39 0.39 0.39  0.39 0.39 0.39
Volume/Cap:  0.28 0.67 0.67  1.08 0.60 0.60  0.51 0.51 0.51  0.84 0.84 0.84
Delay/Veh:   11.5 12.2 12.2 106.0 11.3 11.3  19.8 19.8 19.8  29.6 29.6 29.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  11.5 12.2 12.2 106.0 11.3 11.3  19.8 19.8 19.8  29.6 29.6 29.6
DesignQueue:    1   23    2     4   20    2     3    7    1     6   10    6
********************************************************************************
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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #12 Hearst Avenue / Oxford Avenue
********************************************************************************
Cycle (sec):          75         Critical Vol./Cap. (X):          0.929
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):     52.2
Optimal Cycle:       101         Level Of Service:                   D
********************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   19   19   19    19   19   19    22   22   22    22   22   22
Lanes:     1  0  1  1  0    0  1  0  1  0    0  1  0  1  0    1  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     80  743  315    30  458   25    23  267  115   313  478   52
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  80  743  315    30  458   25    23  267  115   313  478   52
Added Vol:     0    0    7     0    0    0     0    2    0    39   55    1
Future:       30  110   40    10   70   20     0   80   40    40 1120   10
Initial Fut: 110  853  362    40  528   45    23  349  155   392 1653   63
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 110  853  362    40  528   45    23  349  155   392 1653   63
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 110  853  362    40  528   45    23  349  155   392 1653   63
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 110  853  362    40  528   45    23  349  155   392 1653   63
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.19 0.91 0.91  0.90 0.90 0.90  0.87 0.87 0.87  0.95 0.95 0.95
Lanes:      1.00 1.40 0.60  0.13 1.72 0.15  0.09 1.32 0.59  1.00 1.93 0.07
Final Sat.:  357 2420 1027   222 2937  250   144 2183  969  1798 3464  132
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.31 0.35 0.35  0.18 0.18 0.18  0.16 0.16 0.16  0.22 0.48 0.48
Crit Moves:      ****                                           ****
Green/Cycle: 0.28 0.28 0.28  0.28 0.28 0.28  0.61 0.61 0.61  0.61 0.61 0.61
Volume/Cap: 1.09 1.25 1.25  0.64 0.64 0.64  0.26 0.26 0.26  0.36 0.78 0.78
Delay/Veh:  142.2 146 145.9  26.7 26.7 26.7   7.1  7.1  7.1   7.5 13.2 13.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 142.2 146 145.9  26.7 26.7 26.7   7.1  7.1  7.1   7.5 13.2 13.2
DesignQueue:   3   28   12     1   16    1     0    6    3     7   30    1
********************************************************************************
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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
               2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #13 Hearst Avenue / Spruce Street
********************************************************************************
Average Delay (sec/veh):      2.6        Worst Case Level Of Service:       C
********************************************************************************
Approach:     North Bound      South Bound       East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign      Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  1! 0  0    0  1  1  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0    11    0   48    34  579    0     0  792   13
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0    11    0   48    34  579    0     0  792   13
Added Vol:     0    0    0     1    0    0     0   10    0     0   95    3
Future:        0    0    0     0    0   20     0  130    0     0  170    0
Initial Fut:   0    0    0    12    0   68    34  719    0     0 1057   16
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0    12    0   68    34  719    0     0 1057   16
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    0    0    0    12    0   68    34  719    0     0 1057   16
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.8 xxxx  6.9   4.1 xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  1493 xxxx  537  1073 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   116 xxxx  494   657 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   112 xxxx  494   657 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  10.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     B    *    *     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  326 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 19.6 xxxxx  10.8 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *     *    C    *     B    *    *     *    *    *
ApproachDel:   xxxxxx           19.6           xxxxxx           xxxxxx
ApproachLOS:     *               C               *               *
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #14 Hearst Avenue / Arch Street / Le Conte Avenue
********************************************************************************
Average Delay (sec/veh):     2.0        Worst Case Level Of Service:      C
********************************************************************************
Approach:     North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:       0  0  0  0  0    0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    0    0    0    6    0  135  146  439    0    0  668    6
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0    0    0    6    0  135  146  439    0    0  668    6
Added Vol:   0    0    0    0    0    0    3    7    0    0   98    0
Future:      0    0    0    0    0   40   50  100    0    0  150    0
Initial Fut: 0    0    0    6    0  175  199  546    0    0  916    6
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  0    0    0    6    0  175  199  546    0    0  916    6
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:  0    0    0    6    0  175  199  546    0    0  916    6
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.8 xxxx  6.9  4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1590 xxxx  461  922 xxxx xxxxx xxxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  100 xxxx  553  749 xxxx xxxxx xxxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   80 xxxx  553  749 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 11.5 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *    *    *    *    B    *    *    *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx  462 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx 17.7 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxx xxxxx
Shared LOS:   *    *    *    *    C    *    *    *    *    *    *    *
ApproachDel:   xxxxxx          17.7          xxxxxx          xxxxxx
ApproachLOS:      *              C               *               *
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #15 Hearst Avenue / Scenic Avenue
********************************************************************************
Average Delay (sec/veh):     0.9        Worst Case Level Of Service:      B
********************************************************************************
Approach:     North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:       0  0  0  0  0    0  0  0  0  1    0  0  2  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00-6:00 PM
Base Vol:    0    0    0    0    0  109    0  437    0    0  566   54
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0    0    0    0    0  109    0  437    0    0  566   54
Added Vol:   0    0    0    0    0   11    0    0    0    0   86    0
Future:      0    0    0    0    0   30    0  100    0    0  140   10
Initial Fut: 0    0    0    0    0  150    0  537    0    0  792   64
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  0    0    0    0    0  150    0  537    0    0  792   64
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:  0    0    0    0    0  150    0  537    0    0  792   64
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx  6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx  3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx xxxx xxxx  428  xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx  581  xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx xxxx xxxx  581  xxxx xxxx xxxxx xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx 13.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *    *    *    B    *    *    *    *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS:   *    *    *    *    *    *    *    *    *    *    *    *
ApproachDel:   xxxxxx          13.3          xxxxxx          xxxxxx
ApproachLOS:      *              B               *               *
```

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                              UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                  PM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
                  2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #16 Hearst Avenue / Euclid Avenue
********************************************************************************
Cycle (sec):        80          Critical Vol./Cap. (X):          0.631
Loss Time (sec):    12 (Y+R =  3 sec) Average Delay (sec/veh):      17.2
Optimal Cycle:      53          Level Of Service:                    B
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0    0   25    0   25    5   16    0   16   16   16
Lanes:          0  0  1! 0  0    0  0  1! 0  0    1  0  1  0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:       4    0    1   57    0  115  120  307    0    2  503   23
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    4    0    1   57    0  115  120  307    0    2  503   23
Added Vol:      0    0    0    0    0    0    0    7    0    0   76    0
Future:         0    0    0   10    0   40   40   80    0    0  130   10
Initial Fut:    4    0    1   67    0  155  160  394    0    2  709   33
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     4    0    1   67    0  155  160  394    0    2  709   33
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    4    0    1   67    0  155  160  394    0    2  709   33
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:     4    0    1   67    0  155  160  394    0    2  709   33
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.86 1.00 0.86  0.82 1.00 0.82  0.56 1.00 1.00  0.99 0.99 0.99
Lanes:       0.80 0.00 0.20  0.30 0.00 0.70  1.00 1.00 0.00  0.01 0.95 0.04
Final Sat.:  1307    0  327   470    0 1088  1058 1900    0    5 1800   84
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00  0.14 0.00 0.14  0.15 0.21 0.00  0.39 0.39 0.39
Crit Moves:                  ****                               ****
Green/Cycle: 0.31 0.00 0.31  0.31 0.00 0.31  0.54 0.54 0.00  0.54 0.54 0.54
Volume/Cap:  0.01 0.00 0.01  0.46 0.00 0.46  0.28 0.39 0.00  0.73 0.73 0.73
Delay/Veh:   19.0  0.0 19.0  25.1  0.0 25.1  11.3 11.9  0.0  18.8 18.8 18.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  19.0  0.0 19.0  25.1  0.0 25.1  11.3 11.9  0.0  18.8 18.8 18.8
DesignQueue:    0    0    0    2    0    5    3    9    0    0   16    1
********************************************************************************
```

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                              UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                  PM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
                 2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #17 Hearst Avenue / Le Roy Avenue
********************************************************************************
Average Delay (sec/veh):      2.5        Worst Case Level Of Service:      C
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:          Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:          0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:       0    0    0   12    0   56   38  355    0    0  523   21
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0    0    0   12    0   56   38  355    0    0  523   21
Added Vol:      0    0    0    0    0    0    0    7    0    0   76    0
Future:         0    0    0    0    0   10   20   90    0    0  140   10
Initial Fut:    0    0    0   12    0   66   58  452    0    0  739   31
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0    0    0   12    0   66   58  452    0    0  739   31
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:     0    0    0   12    0   66   58  452    0    0  739   31
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx  6.2  4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1313 xxxx  755  770 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  169 xxxx  412  854 xxxx xxxxx xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  160 xxxx  412  854 xxxx xxxxx xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  9.5 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     A    *    *     *    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  332 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 19.2 xxxxx  9.5 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *     *    C    *     A    *    *     *    *    *
ApproachDel:    xxxxxx            19.2             xxxxxx           xxxxxx
ApproachLOS:      *                 C                *                *
```

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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             PM Peak Hour
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                    Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #18 Hearst Avenue / Gayley Road / LaLoma Avenue
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):         1.108
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     67.1
Optimal Cycle:      180          Level Of Service:                  E
********************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:    L  - T  - R     L  - T  - R     L  - T  - R     L  - T  - R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18     18   18   18     17   17   17     17   17   17
Lanes:        0  0 1! 0  0     0  0 1! 0  0     0  0 1! 0  0     0  1  0  0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:    318  288   19      4  203   49     28   52  288     69  197   40
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse: 318  288   19      4  203   49     28   52  288     69  197   40
Added Vol:    26   31    7      0   12    0      0    6    1      8   50    0
Future:       90   30   10      0    0   20     20   30   60     10   60   10
Initial Fut: 434  349   36      4  215   69     48   88  349     87  307   50
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:  434  349   36      4  215   69     48   88  349     87  307   50
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol: 434  349   36      4  215   69     48   88  349     87  307   50
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:  434  349   36      4  215   69     48   88  349     87  307   50
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.68 0.68 0.68   0.96 0.96 0.96   0.73 0.73 0.73   0.73 0.73 0.85
Lanes:      0.53 0.43 0.04   0.01 0.75 0.24   0.10 0.18 0.72   0.22 0.78 0.03
Final Sat.:  687  552   57     25 1362  437    137  252  999    307 1084 1615
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.63 0.63 0.63   0.16 0.16 0.16   0.35 0.35 0.35   0.28 0.28 0.03
Crit Moves:      ****                              ****
Green/Cycle: 0.57 0.57 0.57   0.57 0.57 0.57   0.32 0.32 0.32   0.32 0.32 0.32
Volume/Cap: 1.11 1.11 1.11   0.28 0.28 0.28   1.11 1.11 1.11   0.90 0.90 0.10
Delay/Veh:  81.9 81.9 81.9    8.3  8.3  8.3   99.1 99.1 99.1   46.2 46.2 16.9
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh: 81.9 81.9 81.9    8.3  8.3  8.3   99.1 99.1 99.1   46.2 46.2 16.9
DesignQueue:   8    7    1      0    4    1      1    3   10      2    9    1
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             PM Peak Hour
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                    Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #19 Berkeley Way / Oxford Street
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):         0.488
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      9.3
Optimal Cycle:       46          Level Of Service:                  A
********************************************************************************
Approach:     North Bound      South Bound      East Bound      West Bound
Movement:    L  - T  - R     L  - T  - R     L  - T  - R     L  - T  - R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18     18   18   18     20   20   20     20   20   20
Lanes:        1  0  1  1  0     1  0  1  1  0     0  0 1! 0  0     1  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     48 1039    3      4  890   22     72    2   51     29   18   42
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  48 1039    3      4  890   22     72    2   51     29   18   42
Added Vol:     0    7    0      0   39    0      0    0    0      0    0    0
Future:       20  160    0      0  170    0     10    0   10     20    0   10
Initial Fut:  68 1206    3      4 1099   22     82    2   61     49   18   52
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:   68 1206    3      4 1099   22     82    2   61     49   18   52
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  68 1206    3      4 1099   22     82    2   61     49   18   52
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   68 1206    3      4 1099   22     82    2   61     49   18   52
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.20 0.95 0.95   0.18 0.95 0.95   0.75 0.75 0.75   0.73 0.89 0.89
Lanes:      1.00 1.99 0.01   1.00 1.96 0.04   0.57 0.01 0.42   1.00 0.26 0.74
Final Sat.:  384 3601    9    336 3529   71    810   20  602   1391  434 1255
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.18 0.33 0.33   0.01 0.31 0.31   0.10 0.10 0.10   0.04 0.04 0.04
Crit Moves:      ****                              ****
Green/Cycle: 0.63 0.63 0.63   0.63 0.63 0.63   0.27 0.27 0.27   0.27 0.27 0.27
Volume/Cap: 0.28 0.53 0.53   0.02 0.50 0.50   0.38 0.38 0.38   0.13 0.16 0.16
Delay/Veh:   7.0  8.1  8.1    5.3  7.8  7.8   23.1 23.1 23.1   21.1 21.2 21.2
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  7.0  8.1  8.1    5.3  7.8  7.8   23.1 23.1 23.1   21.1 21.2 21.2
DesignQueue:   1   20    0      0   19    0      3    0    2      2    1    2
********************************************************************************
```

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                           UC Berkeley LRDP EIR
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                     Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #20 University Avenue / Sixth Street
********************************************************************************
Cycle (sec):        128          Critical Vol./Cap. (X):         1.183
Loss Time (sec):     16 (Y+R =  5 sec) Average Delay (sec/veh):    99.2
Optimal Cycle:      180          Level Of Service:                  F
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           ------------|--------------||--------------||--------------|
Control:       Prot+Permit       Permitted        Protected        Protected
Rights:         Include           Include          Include          Include
Min. Green:   6   23   23    0   23   23    6   15   15    6   15   15
Lanes:       1  0  1  0  1  1  0  1  0  1  1  0  1  1  0  1  0  1  1  0
           ------------|--------------||--------------||--------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:    343  353   48   101  239  465   163  827  212    42 1205   33
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 343  353   48   101  239  465   163  827  212    42 1205   33
Added Vol:     0    0    1     0    3    8     1    6    0     0   46    0
Future:       10   70   40   100  130  100    20  200   20    20  120   10
Initial Fut: 353  423   89   201  372  573   184 1033  232    62 1371   43
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  353  423   89   201  372  573   184 1033  232    62 1371   43
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 353  423   89   201  372  573   184 1033  232    62 1371   43
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  353  423   89   201  372  573   184 1033  232    62 1371   43
           ------------|--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.47 1.00 0.85  0.28 1.00 0.85  0.95 0.92 0.92  0.95 0.95 0.95
Lanes:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.63 0.37  1.00 1.94 0.06
Final Sat.:  894 1900 1615   534 1900 1615  1805 2868  644  1805 3486  109
           ------------|--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.39 0.22 0.06  0.38 0.20 0.35  0.10 0.36 0.36  0.03 0.39 0.39
Crit Moves: ****             ****             ****             ****
Green/Cycle: 0.46 0.46 0.46  0.30 0.30 0.30  0.09 0.37 0.37  0.05 0.33 0.33
Volume/Cap: 0.86 0.48 0.12  1.27 0.66 1.20  1.20 0.98 0.98  0.73 1.19 1.19

Delay/Veh:  46.4 25.9 20.0 205.9 45.3 151.7 193.1 60.7 60.7 103.1  139 139.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 46.4 25.9 20.0 205.9 45.3 151.7 193.1 60.7 60.7 103.1  139 139.2
DesignQueue:  22   17    3    10   20   31    12   51   11     4   73    2
********************************************************************************
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                           UC Berkeley LRDP EIR
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                             PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #21 University Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):        128          Critical Vol./Cap. (X):         1.012
Loss Time (sec):     16 (Y+R =  4 sec) Average Delay (sec/veh):   171.5
Optimal Cycle:      180          Level Of Service:                  F
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           ------------|--------------||--------------||--------------|
Control:       Protected         Protected        Protected        Protected
Rights:         Include           Include          Include          Include
Min. Green:   5   21   21    5   21   21    5   22   22    5   22   22
Lanes:       1  0  1  1  0  1  0  1  1  0  1  0  1  1  0  1  0  1  1  0
           ------------|--------------||--------------||--------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:    233  945   93   141  681   84    87  986  105    71  906  125
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 233  945   93   141  681   84    87  986  105    71  906  125
Added Vol:     0    0    0     2    4    0     0    6    0     1   46   24
Future:       50   90   10    20  220   60    90  190   80    10   60   20
Initial Fut: 283 1035  103   163  905  144   177 1182  185    82 1012  169
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  283 1035  103   163  905  144   177 1182  185    82 1012  169
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 283 1035  103   163  905  144   177 1182  185    82 1012  169
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  283 1035  103   163  905  144   177 1182  185    82 1012  169
           ------------|--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.94 0.94  0.95 0.93 0.93  0.95 0.93 0.93  0.95 0.93 0.93
Lanes:      1.00 1.82 0.18  1.00 1.73 0.27  1.00 1.73 0.27  1.00 1.71 0.29
Final Sat.: 1805 3237  322  1805 3049  485  1805 3059  479  1805 3028  506
           ------------|--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.32 0.32  0.09 0.30 0.30  0.10 0.39 0.39  0.05 0.33 0.33
Crit Moves: ****             ****             ****             ****
Green/Cycle: 0.09 0.34 0.34  0.09 0.34 0.34  0.12 0.27 0.27  0.18 0.22 0.22
Volume/Cap: 1.67 0.95 0.95  0.96 0.88 0.88  0.84 1.43 1.43  0.26 1.50 1.50
Delay/Veh: 384.7 58.3 58.3 117.8 49.9 49.9  86.0  247 246.8 47.6  279 279.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 384.7 58.3 58.3 117.8 49.9 49.9  86.0  247 246.8 47.6  279 279.5
DesignQueue:  19   53    5    11   46    7    11   68   11     5   61   10
********************************************************************************
```

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                           UC Berkeley LRDP EIR
                        2020 No Project Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #22 University Avenue / Martin Luther King Way
********************************************************************************
Cycle (sec):          75          Critical Vol./Cap. (X):           0.930
Loss Time (sec):      12 (Y+R =  5 sec) Average Delay (sec/veh):     40.6
Optimal Cycle:       104          Level Of Service:                    D
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:     5   23   23    23   23   23    17   17   17    17   17   17
Lanes:        1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     282  902   78    46  702   77    80  679  134    71  727   81
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  282  902   78    46  702   77    80  679  134    71  727   81
Added Vol:     14   12    0     0    0    0     0    9    0     1   60    0
Future:        30  200   20    30   60   10    30  170   40    10   70   10
Initial Fut:  326 1114   98    76  762   87   110  858  174    82  857   91
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   326 1114   98    76  762   87   110  858  174    82  857   91
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  326 1114   98    76  762   87   110  858  174    82  857   91
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   326 1114   98    76  762   87   110  858  174    82  857   91
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.94 0.94  0.14 0.94 0.94  0.16 0.93 0.93  0.16 0.94 0.94
Lanes:       1.00 1.84 0.16  1.00 1.80 0.20  1.00 1.66 0.34  1.00 1.81 0.19
Final Sat.:  1805 3278  288   266 3191  364   304 2926  593   304 3218  342
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.18 0.34 0.34  0.29 0.24 0.24  0.36 0.29 0.29  0.27 0.27 0.27
Crit Moves:  ****              ****             ****
Green/Cycle: 0.13 0.52 0.52  0.39 0.39 0.39  0.33 0.33 0.33  0.33 0.33 0.33
Volume/Cap:  1.35 0.65 0.65  0.74 0.62 0.62  1.09 0.88 0.88  0.81 0.80 0.80
Delay/Veh:  219.9 11.4 11.4  55.5 18.9 18.9 139.4 33.1 33.1  71.1 28.4 28.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 219.9 11.4 11.4  55.5 18.9 18.9 139.4 33.1 33.1  71.1 28.4 28.4
DesignQueue:   12   24    2     2   21    2     3   26    5     2   25    3
********************************************************************************
```

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                           UC Berkeley LRDP EIR
                        2020 No Project Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #23 University Avenue / Milvia Street
********************************************************************************
Cycle (sec):          75          Critical Vol./Cap. (X):           0.572
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):     18.8
Optimal Cycle:        49          Level Of Service:                    B
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    21   21   21    21   21   21    20   20   20    20   20   20
Lanes:        1  0  0  1  0   0  0  1! 0  0   0  1  0  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     127  218   44    13  102   74    47  649  108    22  651   33
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  127  218   44    13  102   74    47  649  108    22  651   33
Added Vol:      0    0    0     0    0    0     0    9    0     0   60    0
Future:        10   10   10    10   10   10    20  180   20    10   80   20
Initial Fut:  137  228   54    23  112   84    67  838  128    32  791   53
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   137  228   54    23  112   84    67  838  128    32  791   53
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  137  228   54    23  112   84    67  838  128    32  791   53
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   137  228   54    23  112   84    67  838  128    32  791   53
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.70 0.97 0.97  0.90 0.90 0.90  0.76 0.76 0.76  0.84 0.84 0.84
Lanes:       1.00 0.81 0.19  0.11 0.51 0.38  0.13 1.62 0.25  0.07 1.81 0.12
Final Sat.:  1336 1492  353   180  875  656   187 2339  357   116 2878  193
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.15 0.15  0.13 0.13 0.13  0.36 0.36 0.36  0.27 0.27 0.27
Crit Moves:       ****                            ****
Green/Cycle: 0.35 0.35 0.35  0.35 0.35 0.35  0.47 0.47 0.47  0.47 0.47 0.47
Volume/Cap:  0.30 0.44 0.44  0.37 0.37 0.37  0.76 0.76 0.76  0.58 0.58 0.58
Delay/Veh:   19.5 21.1 21.1  20.1 20.1 20.1  20.2 20.2 20.2  16.0 16.0 16.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  19.5 21.1 21.1  20.1 20.1 20.1  20.2 20.2 20.2  16.0 16.0 16.0
DesignQueue:    4    6    2     1    3    2     2   20    3     1   18    1
********************************************************************************
```

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #24 University Avenue / SB Shattuck Avenue
********************************************************************************
Cycle (sec):       75           Critical Vol./Cap. (X):        0.758
Loss Time (sec):    8 (Y+R =  4 sec) Average Delay (sec/veh):   17.7
Optimal Cycle:     53           Level Of Service:                B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0    16   16   16    16   16   16    16   16   16
Lanes:         0 0  0 0  0    0 1  1 1  0    1 0  1 1  0    0 1  0 1  1
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0    55  576  146   131  374  254    74  642  640
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0    55  576  146   131  374  254    74  642  640
Added Vol:     0    0    0     0   34    2     0    9    0     2   58    0
Future:        0    0    0    30  230   30    40  100   50    10   80  130
Initial Fut:   0    0    0    85  840  178   171  483  304    86  780  770
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0    85  840  178   171  483  304    86  780  770
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0    0    85  840  178   171  483  304    86  780  770
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0    0    85  840  178   171  483  304    86  780  770
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  0.78 0.78 0.78  0.24 0.81 0.81  0.67 0.67 0.67
Lanes:      0.00 0.00 0.00  0.23 2.29 0.48  1.00 1.23 0.77  0.16 1.43 1.41
Final Sat.:    0    0    0   343 3387  718   463 1878 1182   200 1818 1794
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00  0.25 0.25 0.25  0.37 0.26 0.26  0.43 0.43 0.43
Crit Moves:                      ****                            ****
Green/Cycle: 0.00 0.00 0.00  0.33 0.33 0.33  0.57 0.57 0.57  0.57 0.57 0.57
Volume/Cap: 0.00 0.00 0.00  0.76 0.76 0.76  0.65 0.45 0.45  0.76 0.76 0.76
Delay/Veh:   0.0  0.0  0.0  26.3 26.3 26.3  23.1 10.4 10.4  14.9 14.9 14.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  26.3 26.3 26.3  23.1 10.4 10.4  14.9 14.9 14.9
DesignQueue:   0    0    0     3   25    5     3    9    6     2   15   15
********************************************************************************
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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #25 University Avenue / NB Shattuck Avenue
********************************************************************************
Cycle (sec):       75           Critical Vol./Cap. (X):        0.533
Loss Time (sec):   15 (Y+R =  4 sec) Average Delay (sec/veh):   17.5
Optimal Cycle:     47           Level Of Service:                B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:   19    0   19     0    0    0     0   13    0     0   13    0
Lanes:         2 0  1! 0  1    0 0  0 0  0    0 0  2 0  0    0 0  2 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    938    0  208     0    0    0     0  454    0     0  433    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 938    0  208     0    0    0     0  454    0     0  433    0
Added Vol:    26    0    2     0    0    0     0    9    0     0   34    0
Future:      150    0   40     0    0    0     0    0    0     0   70    0
Initial Fut: 1114    0  250     0    0    0     0  463    0     0  537    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 1114    0  250     0    0    0     0  463    0     0  537    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 1114    0  250     0    0    0     0  463    0     0  537    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 1114    0  250     0    0    0     0  463    0     0  537    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.82 1.00 0.84  1.00 1.00 1.00  1.00 0.86 1.00  1.00 0.86 1.00
Lanes:      2.75 0.00 1.25  0.00 0.00 0.00  0.00 2.00 0.00  0.00 2.00 0.00
Final Sat.: 4271    0 1993     0    0    0     0 3249    0     0 3249    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.26 0.00 0.13  0.00 0.00 0.00  0.00 0.14 0.00  0.00 0.17 0.00
Crit Moves: ****                             ****                  ****
Green/Cycle: 0.49 0.00 0.49  0.00 0.00 0.00  0.00 0.31 0.00  0.00 0.31 0.00
Volume/Cap: 0.53 0.00 0.26  0.00 0.00 0.00  0.00 0.46 0.00  0.00 0.53 0.00
Delay/Veh:  14.0  0.0 11.3   0.0  0.0  0.0   0.0 22.3  0.0   0.0 23.4  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 14.0  0.0 11.3   0.0  0.0  0.0   0.0 22.3  0.0   0.0 23.4  0.0
DesignQueue:  25    0    5     0    0    0     0   14    0     0   16    0
********************************************************************************
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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                           PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #26 University Avenue / Oxford Street
********************************************************************************
Cycle (sec):        75        Critical Vol./Cap. (X):        0.783
Loss Time (sec):     4 (Y+R =  4 sec) Average Delay (sec/veh):   22.9
Optimal Cycle:      62        Level Of Service:                 C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Prot+Permit       Permitted         Permitted        Permitted
Rights:          Include          Include           Include          Include
Min. Green:   18   18   18    18   18   18    18   18   18    18   18   18
Lanes:       1  0  1  1  0   1  0  1  1  0   1  1  0  0  1   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     278  771   16    32  835  106   306   39  330     9   37   40
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  278  771   16    32  835  106   306   39  330     9   37   40
Added Vol:      0    0    0     0    5   34     7    0    4     0    0    0
Future:        50  130    0    10  160   30    20   10   20     0   10   10
Initial Fut:  328  901   16    42 1000  170   333   49  354     9   47   50
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   328  901   16    42 1000  170   333   49  354     9   47   50
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  328  901   16    42 1000  170   333   49  354     9   47   50
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   328  901   16    42 1000  170   333   49  354     9   47   50
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.38 0.85 0.85  0.26 0.84 0.84  0.59 0.59 0.77  0.83 0.83 0.83
Lanes:       1.00 1.97 0.03  1.00 1.71 0.29  1.74 0.26 1.00  0.08 0.44 0.48
Final Sat.:   723 3183   57   489 2716  462  1950  287 1454   134  698  742
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.45 0.28 0.28  0.09 0.37 0.37  0.17 0.17 0.24  0.07 0.07 0.07
Crit Moves:  ****              ****              ****
Green/Cycle: 0.67 0.67 0.67  0.43 0.43 0.43  0.28 0.28 0.28  0.28 0.28 0.28
Volume/Cap:  0.68 0.43 0.43  0.20 0.87 0.87  0.61 0.61 0.87  0.24 0.24 0.24
Delay/Veh:   22.9  6.5  6.5  15.7 27.2 27.2  27.7 27.7 46.7  22.0 22.0 22.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  22.9  6.5  6.5  15.7 27.2 27.2  27.7 27.7 46.7  22.0 22.0 22.0
DesignQueue:   11   13    0     1   26    4    10    2   11     0    1    2
********************************************************************************
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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                           PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #27 Univeristy Drive (East Gate)  / Gayley Road
********************************************************************************
Average Delay (sec/veh):    2.2        Worst Case Level Of Service:      D
********************************************************************************
Approach:      North Bound     South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:          Include          Include           Include          Include
Lanes:        1  0  1  0  0   0  0  0  1  0   1  0  0  0  1   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:      59  552    0     0  505   52    41    0   81     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   59  552    0     0  505   52    41    0   81     0    0    0
Added Vol:      0   64    0     0   21    0     0    0    0     0    0    0
Future:        20  110    0     0   60   10    10    0   20     0    0    0
Initial Fut:   79  726    0     0  586   62    51    0  101     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    79  726    0     0  586   62    51    0  101     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    79  726    0     0  586   62    51    0  101     0    0    0
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  648 xxxx xxxxx  xxxx xxxx xxxxx  1501 xxxx   617  xxxx xxxx xxxxx
Potent Cap.:  947 xxxx xxxxx  xxxx xxxx xxxxx   136 xxxx   494  xxxx xxxx xxxxx
Move Cap.:    947 xxxx xxxxx  xxxx xxxx xxxxx   127 xxxx   494  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:  9.1 xxxx xxxxx xxxxx xxxx xxxxx  51.2 xxxx  14.2 xxxxx xxxx xxxxx
LOS by Move:  A    *     *     *     *     *    F     *     B    *     *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap:  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxxx xxxx xxxxx  xxxxx xxxx xxxxx
Shared LOS:   *    *     *     *     *     *     *    *     *     *     *     *
ApproachDel:   xxxxxx          xxxxxx           26.6            xxxxxx
ApproachLOS:       *               *               D               *
```

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                              UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                PM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
           2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #28 Addison Street / Oxford Street
********************************************************************************
Average Delay (sec/veh):     0.8        Worst Case Level Of Service:        C
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Uncontrolled     Uncontrolled       Stop Sign         Stop Sign
Rights:          Include          Include           Include           Include
Lanes:        1  0  2  0  0    0  0  1  1  0     0  0  1! 0  0     0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     32 1006    0     0  952   28    10    0  114     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  32 1006    0     0  952   28    10    0  114     0    0    0
Added Vol:     0    0    0     0    9    0     0    0    0     0    0    0
Future:       10  180    0     0  170   10     0    0   10     0    0    0
Initial Fut:  42 1186    0     0 1131   38    10    0  124     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:   45 1262    0     0 1203   40    11    0  132     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:   45 1262    0     0 1203   40    11    0  132     0    0    0
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8 xxxx   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 919 xxxx xxxxx  xxxx xxxx xxxxx  1635 xxxx   161 xxxxx xxxx xxxxx
Potent Cap.: 615 xxxx xxxxx  xxxx xxxx xxxxx    74 xxxx   707 xxxxx xxxx xxxxx
Move Cap.:   615 xxxx xxxxx  xxxx xxxx xxxxx    70 xxxx   707 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 11.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  B    *     *     *     *    *     *     *     *     *     *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx   421 xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxxx 17.8 xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *     *     *     *    *     *     C     *     *     *     *
ApproachDel:    xxxxxx           xxxxxx            17.8            xxxxxx
ApproachLOS:       *                *                C                *
```

```
                              UC Berkeley LRDP EIR
                            2020 No Project Conditions
                                PM Peak Hour
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #29 Center Street / SB Shattuck Avenue
********************************************************************************
Cycle (sec):         75           Critical Vol./Cap. (X):        0.612
Loss Time (sec):     12 (Y+R = 10 sec) Average Delay (sec/veh):     17.0
Optimal Cycle:       67           Level Of Service:                B
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted         Permitted
Rights:          Include          Include           Include           Include
Min. Green:    0    0    0    30   30   30     0   17   17    25   25    0
Lanes:         0    0    0  0   0  1  1  1  0   0   0  0  1  0   0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0    41  790  126     0  104  179    29  160    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0    41  790  126     0  104  179    29  160    0
Added Vol:     0    0    0     0   35    0     0    0    0     0    0    0
Future:        0    0    0    10  230   40     0   50   30    30   40    0
Initial Fut:   0    0    0    51 1055  166     0  154  209    59  200    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0    51 1055  166     0  154  209    59  200    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0    0    51 1055  166     0  154  209    59  200    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0    0    51 1055  166     0  154  209    59  200    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  0.79 0.79 0.79  1.00 0.83 0.83  0.78 0.78 1.00
Lanes:      0.00 0.00 0.00  0.12 2.49 0.39  0.00 0.42 0.58  0.23 0.77 0.00
Final Sat.:    0    0    0   180 3719  585     0  669  908   339 1149    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00  0.28 0.28 0.28  0.00 0.23 0.23  0.17 0.17 0.00
Crit Moves:                      ****                ****
Green/Cycle: 0.00 0.00 0.00  0.40 0.40 0.40  0.00 0.29 0.29  0.43 0.43 0.00
Volume/Cap: 0.00 0.00 0.00  0.71 0.71 0.71  0.00 0.78 0.78  0.41 0.41 0.00
Delay/Veh:   0.0  0.0  0.0  12.9 12.9 12.9   0.0 36.9 36.9   9.5  9.5  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  12.9 12.9 12.9   0.0 36.9 36.9   9.5  9.5  0.0
DesignQueue:   0    0    0     1   28    4     0    5    6     1    5    0
********************************************************************************
```

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-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                              PM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #30 Center Street / NB Shattuck Avenue
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):          0.530
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      9.6
Optimal Cycle:       65          Level Of Service:                  A
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R    L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted        Permitted       Permitted
Rights:          Include         Include          Include         Include
Min. Green:  40   40   40    0    0    0    17   17    0     0   17   17
Lanes:       0 1  1  1 0    0 0  0  0 0    0 1  0  0 0    0 0  0  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     50  982   86     0    0    0    81   55    0     0  139   58
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  50  982   86     0    0    0    81   55    0     0  139   58
Added Vol:     0   29    0     0    0    0     0    0    0     0    0    0
Future:       30  110   30     0    0    0    30   40    0     0   40   60
Initial Fut:  80 1121  116     0    0    0   111   95    0     0  179  118
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   80 1121  116     0    0    0   111   95    0     0  179  118
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  80 1121  116     0    0    0   111   95    0     0  179  118
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   80 1121  116     0    0    0   111   95    0     0  179  118
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.80 0.80 0.80  1.00 1.00 1.00  0.74 0.74 1.00  1.00 0.85 0.85
Lanes:      0.18 2.56 0.26  0.00 0.00 0.00  0.54 0.46 0.00  0.00 0.60 0.40
Final Sat.:  276 3871  401     0    0    0   754  645    0     0  975  643
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.29 0.29 0.29  0.00 0.00 0.00  0.15 0.15 0.00  0.00 0.18 0.18
Crit Moves:      ****                                            ****
Green/Cycle: 0.53 0.53 0.53  0.00 0.00 0.00  0.29 0.29 0.00  0.00 0.29 0.29
Volume/Cap: 0.54 0.54 0.54  0.00 0.00 0.00  0.50 0.50 0.00  0.00 0.63 0.63
Delay/Veh:   3.6  3.6  3.6   0.0  0.0  0.0  20.2 20.2  0.0   0.0 29.1 29.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  3.6  3.6  3.6   0.0  0.0  0.0  20.2 20.2  0.0   0.0 29.1 29.1
DesignQueue:   2   23    2     0    0    0     3    3    0     0    5    4
********************************************************************************
```

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-------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                              PM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #31 Center Street / Oxford Street
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):          0.522
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     10.1
Optimal Cycle:       46          Level Of Service:                  B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R    L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted        Permitted       Permitted
Rights:          Include         Include          Include         Include
Min. Green:  19   19   19    19   19   19    19   19   19    19   19   19
Lanes:       1 0  1  1 0    1 0  1  1 0    0 0  1! 0 0    0 0  1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2000 << 4:00 - 6:00 PM
Base Vol:     87  998   24    19  980   67    33    6   84    37    9   16
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  87  998   24    19  980   67    33    6   84    37    9   16
Added Vol:     0    0    0     0    9    0     0    0    0     0    0    0
Future:       40  150   10     0  150   30    30    0   30     0    0    0
Initial Fut: 127 1148   34    19 1139   97    63    6  114    37    9   16
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 127 1148   34    19 1139   97    63    6  114    37    9   16
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 127 1148   34    19 1139   97    63    6  114    37    9   16
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 127 1148   34    19 1139   97    63    6  114    37    9   16
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.21 0.95 0.95  0.22 0.94 0.94  0.80 0.80 0.80  0.78 0.78 0.78
Lanes:      1.00 1.94 0.06  1.00 1.84 0.16  0.34 0.03 0.63  0.60 0.14 0.26
Final Sat.:  397 3492  103   426 3287  280   525   50  951   880  214  380
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.32 0.33 0.33  0.04 0.35 0.35  0.12 0.12 0.12  0.04 0.04 0.04
Crit Moves:                      ****              ****
Green/Cycle: 0.64 0.64 0.64  0.64 0.64 0.64  0.25 0.25 0.25  0.25 0.25 0.25
Volume/Cap: 0.50 0.51 0.51  0.07 0.54 0.54  0.47 0.47 0.47  0.17 0.17 0.17
Delay/Veh:  14.0  8.1  8.1   5.6  8.4  8.4  27.9 27.9 27.9  22.8 22.8 22.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 14.0  8.1  8.1   5.6  8.4  8.4  27.9 27.9 27.9  22.8 22.8 22.8
DesignQueue:   2   19    1     0   19    2     2    0    4     1    0    1
********************************************************************************
```

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--------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
               2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #32 Stadium Rim Road / Gayley Road
********************************************************************************
Cycle (sec):        100         Critical Vol./Cap. (X):        1.196
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):   73.1
Optimal Cycle:       0          Level Of Service:                 F
********************************************************************************
Approach:      North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:          Include           Include           Include           Include
Min. Green:    0    0    0      0    0    0      0    0    0      0    0    0
Lanes:         0    0    0  1 0  0  1  0  0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0  359   19   135  459    0    20    7   15    47    0  232
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  359   19   135  459    0    20    7   15    47    0  232
Added Vol:     0   39    7     2   19    0     0    0    0    21    0   25
Future:        0   90   10    20   50    0     0    0    0    10    0   30
Initial Fut:   0  488   36   157  528    0    20    7   15    78    0  287
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0  488   36   157  528    0    20    7   15    78    0  287
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0  488   36   157  528    0    20    7   15    78    0  287
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  488   36   157  528    0    20    7   15    78    0  287
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.93 0.07  0.23 0.77 0.00  0.47 0.17 0.36  0.21 0.00 0.79
Final Sat.:    0  530   39   131  442    0   196   69  147   116    0  425
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx 0.92 0.92  1.20 1.20 xxxx  0.10 0.10 0.10  0.67 xxxx 0.67
Crit Moves:      ****              ****      ****                    ****
Delay/Veh:   0.0 44.6 44.6 126.2  126  0.0  11.9 11.9 11.9  21.4  0.0 21.4
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 44.6 44.6 126.2  126  0.0  11.9 11.9 11.9  21.4  0.0 21.4
LOS by Move:  *    E    E     F    F    *     B    B    B     C    *    C
ApproachDel:     44.6             126.2            11.9              21.4
Delay Adj:       1.00             1.00             1.00              1.00
ApprAdjDel:      44.6             126.2            11.9              21.4
LOS by Appr:      E                 F                B                 C
********************************************************************************
```

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--------------------------------------------------------------------------------
                             UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
               2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #33 Allston Way / Oxford Street
********************************************************************************
Average Delay (sec/veh):      5.5         Worst Case Level Of Service:      E
********************************************************************************
Approach:     North Bound       South Bound       East Bound        West Bound
Movement:    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Uncontrolled      Uncontrolled       Stop Sign         Stop Sign
Rights:          Include           Include           Include           Include
Lanes:        0  1  1  0  0   0  1  0  1  0   1  0  0  0  1   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     46 1002    0    26 1082   75    23    0  110     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  46 1002    0    26 1082   75    23    0  110     0    0    0
Added Vol:     0    0    0     0    9    0     0    0    0     0    0    0
Future:        0  190    0    10  160   10     0    0   30     0    0    0
Initial Fut:  46 1192    0    36 1251   85    23    0  140     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   46 1192    0    36 1251   85    23    0  140     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:   46 1192    0    36 1251   85    23    0  140     0    0    0
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx  4.1 xxxx xxxxx  6.8 xxxx  6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx  2.2 xxxx xxxxx  3.5 xxxx  3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1271 xxxx xxxxx 1192 xxxx xxxxx 2016 xxxx  580 xxxx xxxx xxxxx
Potent Cap.: 536 xxxx xxxxx  593 xxxx xxxxx   50 xxxx  447 xxxx xxxx xxxxx
Move Cap.:   536 xxxx xxxxx  593 xxxx xxxxx   45 xxxx  447 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 12.4 xxxx xxxxx 11.5 xxxx xxxxx 151.2 xxxx 16.7 xxxxx xxxx xxxxx
LOS by Move:  B    *    *     B    *    *     F    *    C     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: x xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel: 12.4 xxxx xxxxx 11.5 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   B    *    *     B    *    *     *    *    *     *    *    *
ApproachDel:     xxxxxx            xxxxxx            35.7             xxxxxx
ApproachLOS:       *                 *                 E                 *
********************************************************************************
```

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CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31          Page 40-1      CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31          Page 41-1
--------------------------------------------------------------------------   --------------------------------------------------------------------------
                         UC Berkeley LRDP EIR                                                         UC Berkeley LRDP EIR
                      2020 No Project Conditions                                                   2020 No Project Conditions
                           PM Peak Hour                                                                 PM Peak Hour
--------------------------------------------------------------------------   --------------------------------------------------------------------------
                 Level Of Service Computation Report                                          Level Of Service Computation Report
        2000 HCM Unsignalized Method (Future Volume Alternative)                     2000 HCM 4-Way Stop Method (Future Volume Alternative)
*************************************************************************      *************************************************************************
Intersection #34 Kittridge Street / Oxford Street / Fulton Street             Intersection #35 Stadium Rim Road / Centennial Drive
*************************************************************************      *************************************************************************
Average Delay (sec/veh):     13.7     Worst Case Level Of Service:    F       Cycle (sec):        100       Critical Vol./Cap. (X):      0.595
*************************************************************************      Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):   12.4
Approach:     North Bound    South Bound     East Bound     West Bound        Optimal Cycle:        0               Level Of Service:        B
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R     *************************************************************************
------------|--------------||--------------||--------------||--------------|  Approach:     North Bound    South Bound     East Bound     West Bound
Control:     Uncontrolled    Uncontrolled     Stop Sign      Stop Sign        Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
Rights:         Include         Include        Include        Include         ------------|--------------||--------------||--------------||--------------|
Lanes:      0  1  1  0  0   0  0  1  1  0   0  0  1! 0  0   0  0  0  0  0     Control:      Stop Sign      Stop Sign      Stop Sign      Stop Sign
------------|--------------||--------------||--------------||--------------|  Rights:         Include        Include        Include        Include
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM                   Min. Green:   0   0   0    0   0   0    0   0   0    0   0   0
Base Vol:   45  995   0     0 1108  96    51   0   69     0   0   0           Lanes:      0  0  0  1  0   0  1  0  0  0   0  0  0  0  0   0  0  1! 0  0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00    ------------|--------------||--------------||--------------||--------------|
Initial Bse: 45 995   0     0 1108  96    51   0   69     0   0   0           Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Added Vol:   0    0   0     0   9    0     0   0    0     0   0   0           Base Vol:    0   99  140   102  57   0    0   0   0   204   0  146
Future:     20  180   0     0  150  30    10   0   20     0   0   0           Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Fut: 65 1175  0     0 1267 126    61   0   89     0   0   0           Initial Bse: 0   99  140   102  57   0    0   0   0   204   0  146
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00    Added Vol:   0    0   0     8    0   0    0   0   0    0   0   46
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00    Future:      0   20   20    20  10   0    0   0   0    10   0   20
PHF Volume: 65 1175   0     0 1267 126    61   0   89     0   0   0           Initial Fut: 0  119  160   130  67   0    0   0   0   214   0  212
Reduct Vol:  0    0   0     0    0   0     0   0    0     0   0   0           User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 65 1175   0     0 1267 126    61   0   89     0   0   0           PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Critical Gap Module:                                                         PHF Volume:  0  119  160   130  67   0    0   0   0   214   0  212
Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx  6.8 xxxx   6.9 xxxxx xxxx xxxxx Reduct Vol:  0    0   0     0    0   0    0   0   0    0   0   0
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx  3.5 xxxx   3.3 xxxxx xxxx xxxxx Reduced Vol: 0  119  160   130  67   0    0   0   0   214   0  212
------------|--------------||--------------||--------------||--------------|  PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Capacity Module:                                                            MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Cnflict Vol: 1339 xxxx xxxxx  xxxx xxxx xxxxx 2016 xxxx  623 xxxxx xxxx xxxxx Final Vol.:  0  119  160   130  67   0    0   0   0   214   0  212
Potent Cap.: 507 xxxx xxxxx  xxxx xxxx xxxxx   51 xxxx  422 xxxxx xxxx xxxxx  ------------|--------------||--------------||--------------||--------------|
Move Cap.:   507 xxxx xxxxx  xxxx xxxx xxxxx   46 xxxx  422 xxxxx xxxx xxxxx  Saturation Flow Module:
------------|--------------||--------------||--------------||--------------|  Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Level Of Service Module:                                                     Lanes:      0.00 0.43 0.57  0.66 0.34 0.00  0.00 0.00 0.00  0.50 0.00 0.50
Stopped Del: 13.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx Final Sat.:  0  296  398   410  211   0    0   0   0   360   0  356
LOS by Move:  B    *     *     *    *     *     *    *     *    *    *    *    ------------|--------------||--------------||--------------||--------------|
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT Capacity Analysis Module:
Shared Cap.: xxxx xxxxx xxxxx  xxxx xxxxx xxxxx xxxx   97 xxxxx xxxxx xxxx xxxxx Vol/Sat:    xxxx 0.40 0.40  0.32 0.32 xxxx  xxxx xxxx xxxx  0.59 xxxx 0.59
Shrd StpDel: 13.1 xxxx xxxxx  xxxx xxxx xxxxx xxxxx  370 xxxxx xxxxx xxxx xxxxx Crit Moves:  ****           ****                       ****
Shared LOS:   B    *     *     *    *     *     *    F     *    *    *    *    Delay/Veh:   0.0 10.9 10.9  10.8 10.8  0.0  0.0 0.0  0.0  14.1 0.0 14.1
ApproachDel:   xxxxxx           xxxxxx          369.8          xxxxxx         Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
ApproachLOS:     *                *               F              *            AdjDel/Veh:  0.0 10.9 10.9  10.8 10.8  0.0  0.0 0.0  0.0  14.1 0.0 14.1
                                                                            LOS by Move:  *   B    B     B    B    *    *   *    *    B    *   B
                                                                            ApproachDel:    10.9            10.8          xxxxxx         14.1
                                                                            Delay Adj:      1.00            1.00          xxxxx          1.00
                                                                            ApprAdjDel:     10.9            10.8          xxxxxx         14.1
                                                                            LOS by Appr:     B               B              *             B
                                                                            *************************************************************************

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CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31          Page 42-1
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #36 Bancroft Way / Shattuck Avenue
**************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):       0.734
Loss Time (sec):      8 (Y+R =  5 sec) Average Delay (sec/veh):    16.7
Optimal Cycle:       50          Level Of Service:                B
**************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18    0     0   18   18     0    0    0    16   16   16
Lanes:        1  0 2  0 0    0  0 1  1 0    0  0 1! 0 0    1  0 0  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    30 1186    0     0  949   23     1    0   38   258   97  111
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 30 1186    0     0  949   23     1    0   38   258   97  111
Added Vol:    0   29    0     0   35    0     0    0    0     9    0    0
Future:      10  150    0     0  290   10     0    0    0    30   20   20
Initial Fut: 40 1365    0     0 1274   33     1    0   38   297  117  131
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  40 1365    0     0 1274   33     1    0   38   297  117  131
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 40 1365    0     0 1274   33     1    0   38   297  117  131
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  40 1365    0     0 1274   33     1    0   38   297  117  131
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.19 0.86 1.00  1.00 0.85 0.85  0.78 1.00 0.78  0.66 0.83 0.83
Lanes:      1.00 2.00 0.00  0.00 1.95 0.05  0.03 0.00 0.97  1.00 0.47 0.53
Final Sat.: 361 3249    0     0 3154   82    38    0 1439  1259  743  832
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.11 0.42 0.00  0.00 0.40 0.40  0.03 0.00 0.03  0.24 0.16 0.16
Crit Moves:      ****                               ****
Green/Cycle: 0.57 0.57 0.00  0.00 0.57 0.57  0.32 0.00 0.32  0.32 0.32 0.32
Volume/Cap: 0.19 0.73 0.00  0.00 0.71 0.71  0.08 0.00 0.08  0.73 0.49 0.49
Delay/Veh:   9.8 14.5  0.0   0.0 13.8 13.8  18.1  0.0 18.1  33.9 23.9 23.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  9.8 14.5  0.0   0.0 13.8 13.8  18.1  0.0 18.1  33.9 23.9 23.9
DesignQueue:  1   27    0     0   25    1     0    0    1     9    3    4
**************************************************************************



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CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31          Page 43-1
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #37 Bancroft Way / Fulton Street
**************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):       0.432
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     8.8
Optimal Cycle:       49          Level Of Service:                A
**************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Ignore
Min. Green:  17   17    0     0   17   17     0    0    0    24   24   24
Lanes:        0  1 1  0 0    0  0 2  1 0    0  0 0  0 0    0  1 1  0 1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    18  164    0     0 1066  165     0    0    0    12  287  898
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 18  164    0     0 1066  165     0    0    0    12  287  898
Added Vol:    0    0    0     0    4    5     0    0    0     0    4    0
Future:      10   10    0     0  130   20     0    0    0    10   30  170
Initial Fut: 28  174    0     0 1200  190     0    0    0    22  321 1068
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Volume:  28  174    0     0 1200  190     0    0    0    22  321    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 28  174    0     0 1200  190     0    0    0    22  321    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
Final Vol.:  28  174    0     0 1200  190     0    0    0    22  321    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.75 0.75 1.00  1.00 0.89 0.89  1.00 1.00 1.00  0.81 0.81 1.00
Lanes:      0.28 1.72 0.00  0.00 2.59 0.41  0.00 0.00 0.00  0.13 1.87 1.00
Final Sat.: 393 2441    0     0 4384  694     0    0    0   197 2872 1900
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.07 0.07 0.00  0.00 0.27 0.27  0.00 0.00 0.00  0.11 0.11 0.00
Crit Moves:                      ****                             ****
Green/Cycle: 0.57 0.57 0.00  0.00 0.57 0.57  0.00 0.00 0.00  0.32 0.32 0.00
Volume/Cap: 0.12 0.12 0.00  0.00 0.48 0.48  0.00 0.00 0.00  0.35 0.35 0.00
Delay/Veh:   4.8 4.8   0.0   0.0  6.5  6.5   0.0  0.0  0.0  20.5 20.5  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  4.8  4.8  0.0   0.0  6.5  6.5   0.0  0.0  0.0  20.5 20.5  0.0
DesignQueue:  1    3    0     0   23    4     0    0    0     1    9    0
**************************************************************************



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                         UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Unsignalized Method (Future Volume Alternative)
*************************************************************************
Intersection #38 Bancroft Way / Ellsworth Street
*************************************************************************
Average Delay (sec/veh):    4.9        Worst Case Level Of Service:    D
*************************************************************************
Approach:     North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign       Stop Sign      Uncontrolled    Uncontrolled
Rights:         Include         Include         Include         Include
Lanes:       1  1  0  0  0   0  0  0  0  1   0  0  0  0  0   0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    348   11    0     0    0  100     0    0    0     0  877    6
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 348   11    0     0    0  100     0    0    0     0  877    6
Added Vol:     0    0    0     0    0    0     0    0    0     0    4    0
Future:       50    0    0     0    0    0     0    0    0     0  230    0
Initial Fut: 398   11    0     0    0  100     0    0    0     0 1111    6
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  398   11    0     0    0  100     0    0    0     0 1111    6
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:  398   11    0     0    0  100     0    0    0     0 1111    6
Critical Gap Module:
Critical Gp: 7.1  6.5 xxxxx xxxxx xxxx   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim: 3.5  4.0 xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  556 1117 xxxxx  xxxx xxxx   559 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  445  209 xxxxx  xxxx xxxx   533 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    362  209 xxxxx  xxxx xxxx   533 xxxx xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 26.5 xxxx xxxxx xxxxx xxxx  13.3 xxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  D    *    *    *    *    B   *    *    *    *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.:  348 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel: 29.9 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   D    *    *    *    *    *    *    *    *    *    *    *
ApproachDel:    28.2            13.3          xxxxxx          xxxxxx
ApproachLOS:     D                B              *               *
```

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                         UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Unsignalized Method (Future Volume Alternative)
*************************************************************************
Intersection #39 Bancroft Way / Dana Street
*************************************************************************
Average Delay (sec/veh):    0.0        Worst Case Level Of Service:    A
*************************************************************************
Approach:     North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign       Stop Sign      Uncontrolled    Uncontrolled
Rights:         Include         Include         Include         Include
Lanes:       0  0  0  0  0   0  0  0  0  0   0  0  0  0  0   0  1  2  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0     0    0    0     0    0    0   282  873    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0     0    0    0     0    0    0   282  873    0
Added Vol:     0    0    0     0    0    0     0    0    0     0    4    0
Future:        0    0    0     0    0    0     0    0    0    50  230    0
Initial Fut:   0    0    0     0    0    0     0    0    0   332 1107    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0     0    0    0     0    0    0   332 1107    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    0    0    0     0    0    0     0    0    0   332 1107    0
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
LOS by Move:  *    *    *    *    *    *    *    *    *    A    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Shared LOS:   *    *    *    *    *    *    *    *    *    A    *    *
ApproachDel: xxxxxx          xxxxxx          xxxxxx          xxxxxx
ApproachLOS:     *               *               *               *
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #40 Bancroft Way / Telegraph Avenue
**************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):        0.380
Loss Time (sec):     8 (Y+R = 22 sec) Average Delay (sec/veh):   18.2
Optimal Cycle:      58          Level Of Service:                  B
**************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:  29    0    0    0    0    0    0    0    0    0   21    0
Lanes:        2 0  0 0  0    0 0  0 0  0    0 0  0 0  0    0 0  3 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     495    0    0    0    0    0    0    0    0    0  675    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  495    0    0    0    0    0    0    0    0    0  675    0
Added Vol:      0    0    0    0    0    0    0    0    0    0    4    0
Future:       130    0    0    0    0    0    0    0    0    0  140    0
Initial Fut:  625    0    0    0    0    0    0    0    0    0  819    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   625    0    0    0    0    0    0    0    0    0  819    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  625    0    0    0    0    0    0    0    0    0  819    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   625    0    0    0    0    0    0    0    0    0  819    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.91 1.00
Lanes:      2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.00 0.00
Final Sat.:  3502    0    0    0    0    0    0    0    0    0 5187    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.18 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.16 0.00
Crit Moves: ****                                              ****
Green/Cycle: 0.42 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.30 0.00
Volume/Cap: 0.43 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.53 0.00
Delay/Veh:  13.6  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 21.6  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 13.6  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 21.6  0.0
DesignQueue:  15    0    0    0    0    0    0    0    0    0   23    0
**************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM 4-Way Stop Method (Future Volume Alternative)
**************************************************************************
Intersection #41 Bancroft Way / Bowditch Street
**************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):        0.537
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):   12.9
Optimal Cycle:       0          Level Of Service:                  B
**************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        1 0  0 0  0    0 0  0 0  0    0 0  0 0  0    0 1  1 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     191    0    0    0    0    0    0    0    0   99  494    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  191    0    0    0    0    0    0    0    0   99  494    0
Added Vol:      0    0    0    0    0    0    0    0    0    0    4    0
Future:        30    0    0    0    0    0    0    0    0   20  110    0
Initial Fut:  221    0    0    0    0    0    0    0    0  119  608    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   221    0    0    0    0    0    0    0    0  119  608    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  221    0    0    0    0    0    0    0    0  119  608    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   221    0    0    0    0    0    0    0    0  119  608    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.33 1.67 0.00
Final Sat.:   635    0    0    0    0    0    0    0    0  222 1154    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.35 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.54 0.53 xxxx
Crit Moves: ****                                              ****
Delay/Veh:  11.3  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 13.8 13.4  0.0
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.3  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 13.8 13.4  0.0
LOS by Move:   B    *    *    *    *    *    *    *    *    B    B    *
ApproachDel:       11.3            xxxxxx           xxxxxx           13.5
Delay Adj:         1.00            xxxxx            xxxxx            1.00
ApprAdjDel:        11.3            xxxxxx           xxxxxx           13.5
LOS by Appr:        B                *                *                B
**************************************************************************
```

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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                     2020 No Project Conditions
                          PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
*************************************************************************
Intersection #42 Bancroft Way / College Avenue
*************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):        0.660
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):    14.2
Optimal Cycle:        0        Level Of Service:                 B
*************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign       Stop Sign       Stop Sign       Stop Sign
Rights:         Include         Include         Include         Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        1 0  0  0  0    0 0  0  0  0    0 0  0  0  0    0 1  1  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     371    0    0    0    0    0    0    0    0   83  226    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  371    0    0    0    0    0    0    0    0   83  226    0
Added Vol:      0    0    0    0    0    0    0    0    0   15    4    0
Future:       100    0    0    0    0    0    0    0    0    0   20    0
Initial Fut:  471    0    0    0    0    0    0    0    0   98  250    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   471    0    0    0    0    0    0    0    0   98  250    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  471    0    0    0    0    0    0    0    0   98  250    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   471    0    0    0    0    0    0    0    0   98  250    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.56 1.44 0.00
Final Sat.:   714    0    0    0    0    0    0    0    0  329  867    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.66 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.30 0.29 xxxx
Crit Moves:  ****                                         ****
Delay/Veh:   16.7  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 11.0 10.7  0.0
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  16.7  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 11.0 10.7  0.0
LOS by Move:  C    *    *    *    *    *    *    *    *    B    B    *
ApproachDel:     16.7          xxxxxx          xxxxxx          10.8
Delay Adj:        1.00          xxxxx           xxxxx          1.00
ApprAdjDel:      16.7          xxxxxx          xxxxxx          10.8
LOS by Appr:      C               *               *             B
*************************************************************************
```

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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                     2020 No Project Conditions
                          PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
*************************************************************************
Intersection #43 Bancroft Way / Piedmont Avenue
*************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):        0.931
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):    29.6
Optimal Cycle:        0        Level Of Service:                 D
*************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign       Stop Sign       Stop Sign       Stop Sign
Rights:         Include         Include         Include         Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0 1  0  0  0    0 0  0  1  0    0 0  0  0  0    0 0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     152  439    0    0  357  159    0    0    0    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  152  439    0    0  357  159    0    0    0    0    0    0
Added Vol:      0   46    0    0   22   19    0    0    0    0    0    0
Future:        10   90    0    0   40   10    0    0    0    0    0    0
Initial Fut:  162  575    0    0  419  188    0    0    0    0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   162  575    0    0  419  188    0    0    0    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  162  575    0    0  419  188    0    0    0    0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   162  575    0    0  419  188    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.22 0.78 0.00 0.00 0.69 0.31 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.:   174  618    0    0  554  249    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.93 0.93 xxxx xxxx 0.76 0.76 xxxx xxxx xxxx xxxx xxxx xxxx
Crit Moves:       ****           ****
Delay/Veh:   37.9 37.9  0.0  0.0 19.5 19.5  0.0  0.0  0.0  0.0  0.0  0.0
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  37.9 37.9  0.0  0.0 19.5 19.5  0.0  0.0  0.0  0.0  0.0  0.0
LOS by Move:  E    E    *    *    C    C    *    *    *    *    *    *
ApproachDel:     37.9          19.5          xxxxxx          xxxxxx
Delay Adj:        1.00          1.00           xxxxx           xxxxx
ApprAdjDel:      37.9          19.5          xxxxxx          xxxxxx
LOS by Appr:      E               C               *             *
*************************************************************************
```

```
CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31        Page 50-1      CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31        Page 51-1
--------------------------------------------------------------------------    --------------------------------------------------------------------------
                        UC Berkeley LRDP EIR                                                          UC Berkeley LRDP EIR
                     2020 No Project Conditions                                                    2020 No Project Conditions
                          PM Peak Hour                                                                  PM Peak Hour
--------------------------------------------------------------------------    --------------------------------------------------------------------------
                  Level Of Service Computation Report                                          Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)                       2000 HCM Operations Method (Future Volume Alternative)
********************************************************************           ********************************************************************
Intersection #44 Durant Avenue / Shattuck Avenue                              Intersection #45 Durant Avenue / Fulton Street
********************************************************************           ********************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):      0.779           Cycle (sec):         75          Critical Vol./Cap. (X):      0.424
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):   18.8        Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    9.8
Optimal Cycle:       66          Level Of Service:              B             Optimal Cycle:       51          Level Of Service:              A
********************************************************************           ********************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound     Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  - R    L  -  T  - R    L  -  T  - R    L  -  T  - R     Movement:    L  -  T  - R    L  -  T  - R    L  -  T  - R    L  -  T  - R
-----------|---------------||---------------||---------------||-----------|   -----------|---------------||---------------||---------------||-----------|
Control:       Permitted      Prot+Permit      Permitted       Permitted      Control:       Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include      Rights:          Include         Include         Include         Include
Min. Green:  19   19   19   19   19   19    0    0    0    0    0    0        Min. Green:   0    0    0   21   21    0   22   22   22    0    0    0
Lanes:       1  0  1  1  0    1  0  1  1  0    0  1  0  1  0    0  0  0  0 0   Lanes:       0  0  0  0  0    1  1  1  0  0    1  0  1  1  0    0  0  0  0 0
-----------|---------------||---------------||---------------||-----------|   -----------|---------------||---------------||---------------||-----------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM                   Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      69 1216  120    88 1099   51     9   72   55     0    0    0    Base Vol:       0    0    0   527  760    0   137  219   33     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   69 1216  120    88 1099   51     9   72   55     0    0    0    Initial Bse:    0    0    0   527  760    0   137  219   33     0    0    0
Added Vol:      0   29    0     0   44    0     0    0    0     0    0    0     Added Vol:      0    0    0     0    4    0     0    0    0     0    0    0
Future:        10  170   60    60  260   10     0   40   10     0    0    0    Future:         0    0    0    70   90    0    20  110   30     0    0    0
Initial Fut:   79 1415  180   148 1403   61     9  112   65     0    0    0    Initial Fut:    0    0    0   597  854    0   157  329   63     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    79 1415  180   148 1403   61     9  112   65     0    0    0    PHF Volume:     0    0    0   597  854    0   157  329   63     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0     Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   79 1415  180   148 1403   61     9  112   65     0    0    0    Reduced Vol:    0    0    0   597  854    0   157  329   63     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    79 1415  180   148 1403   61     9  112   65     0    0    0    Final Vol.:     0    0    0   597  854    0   157  329   63     0    0    0
-----------|---------------||---------------||---------------||-----------|   -----------|---------------||---------------||---------------||-----------|
Saturation Flow Module:                                                       Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900   Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.16 0.84 0.84  0.86 0.85 0.85  0.77 0.77 0.77  1.00 1.00 1.00   Adjustment:  1.00 1.00 1.00  0.95 0.95 1.00  0.98 0.93 0.93  1.00 1.00 1.00
Lanes:       1.00 1.77 0.23  1.00 1.92 0.08  0.10 1.20 0.70  0.00 0.00 0.00   Lanes:       0.00 0.00 0.00  1.23 1.77 0.00  1.00 1.68 0.32  0.00 0.00 0.00
Final Sat.:   308 2833  360  1625 3095  135   141 1758 1020     0    0    0    Final Sat.:     0    0    0  2228 3187    0  1854 2957  566     0    0    0
-----------|---------------||---------------||---------------||-----------|   -----------|---------------||---------------||---------------||-----------|
Capacity Analysis Module:                                                     Capacity Analysis Module:
Vol/Sat:     0.26 0.50 0.50  0.09 0.45 0.45  0.06 0.06 0.06  0.00 0.00 0.00   Vol/Sat:     0.00 0.00 0.00  0.27 0.27 0.00  0.08 0.11 0.11  0.00 0.00 0.00
Crit Moves:       ****            ****                 ****                    Crit Moves:                      ****             ****
Green/Cycle: 0.49 0.49 0.49  0.64 0.64 0.64  0.20 0.20 0.20  0.00 0.00 0.00   Green/Cycle: 0.00 0.00 0.00  0.60 0.60 0.00  0.29 0.29 0.29  0.00 0.00 0.00
Volume/Cap:  0.52 1.02 1.02  0.14 0.71 0.71  0.32 0.32 0.32  0.00 0.00 0.00   Volume/Cap:  0.00 0.00 0.00  0.45 0.45 0.00  0.29 0.38 0.38  0.00 0.00 0.00
Delay/Veh:   17.1 34.6 34.6   5.6  2.1  2.1  27.1 27.1 27.1   0.0  0.0  0.0    Delay/Veh:    0.0  0.0  0.0   5.2  5.2  0.0  21.8 22.1 22.1   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  17.1 34.6 34.6   5.6  2.1  2.1  27.1 27.1 27.1   0.0  0.0  0.0    AdjDel/Veh:   0.0  0.0  0.0   5.2  5.2  0.0  21.8 22.1 22.1   0.0  0.0  0.0
DesignQueue:    2   34    4     2   23    1     0    4    2     0    0    0     DesignQueue:    0    0    0    11   15    0     5   10    2     0    0    0
********************************************************************           ********************************************************************


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--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #46 Durant Avenue / Telegraph Avenue
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):          0.435
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    13.2
Optimal Cycle:       43          Level Of Service:                   B
********************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   18   18    0    0    0   17   17    0    0    0    0
Lanes:        0  0  1  1  0   0  0  0  0  0   0  1  2  0  0   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0  362  119    0    0    0  202  690    0    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  362  119    0    0    0  202  690    0    0    0    0
Added Vol:    0    0    2    0    0    0    0    0    0    0    0    0
Future:       0  110   30    0    0    0   20  160    0    0    0    0
Initial Fut:  0  472  151    0    0    0  222  850    0    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  472  151    0    0    0  222  850    0    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  472  151    0    0    0  222  850    0    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  472  151    0    0    0  222  850    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 1.00
Lanes:      0.00 1.52 0.48 0.00 0.00 0.00 0.62 2.38 0.00 0.00 0.00 0.00
Final Sat.:   0 2637  843    0    0    0 1074 4113    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.00 0.18 0.18 0.00 0.00 0.00 0.21 0.21 0.00 0.00 0.00 0.00
Crit Moves:     ****                          ****
Green/Cycle: 0.00 0.41 0.41 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.00 0.00
Volume/Cap:  0.00 0.44 0.44 0.00 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.00
Delay/Veh:   0.0 14.0 14.0  0.0  0.0  0.0 12.7 12.7  0.0  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 14.0 14.0  0.0  0.0  0.0 12.7 12.7  0.0  0.0  0.0  0.0
DesignQueue:  0   11    4    0    0    0    5   18    0    0    0    0
********************************************************************************
```

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--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                         2020 No Project Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #47 Durant Avenue / College Avenue
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):          0.388
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    13.7
Optimal Cycle:       42          Level Of Service:                   B
********************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   18   18    0    0    0   16   16   16    0    0    0
Lanes:        0  0  0  1  0   0  1  0  0  0   1  0  1  1  0   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0  189   62   16   56    0  127  268  202    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  189   62   16   56    0  127  268  202    0    0    0
Added Vol:    0    0    4    0   15    0    0    1    0    0    0    0
Future:       0   40   20    0    0    0   60   70   40    0    0    0
Initial Fut:  0  229   86   16   71    0  187  339  242    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  229   86   16   71    0  187  339  242    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  229   86   16   71    0  187  339  242    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  229   86   16   71    0  187  339  242    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.96 0.96 0.93 0.93 1.00 0.94 0.89 0.89 1.00 1.00 1.00
Lanes:      0.00 0.73 0.27 0.18 0.82 0.00 1.00 1.17 0.83 0.00 0.00 0.00
Final Sat.:   0 1330  500  326 1445    0 1780 1974 1409    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.00 0.17 0.17 0.05 0.05 0.00 0.11 0.17 0.17 0.00 0.00 0.00
Crit Moves:     ****                          ****
Green/Cycle: 0.00 0.44 0.44 0.44 0.44 0.00 0.44 0.44 0.44 0.00 0.00 0.00
Volume/Cap:  0.00 0.39 0.39 0.11 0.11 0.00 0.24 0.39 0.39 0.00 0.00 0.00
Delay/Veh:   0.0 14.5 14.5 11.7 11.7  0.0 12.9 13.9 13.9  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 14.5 14.5 11.7 11.7  0.0 12.9 13.9 13.9  0.0  0.0  0.0
DesignQueue:  0    5    2    0    2    0    4    8    5    0    0    0
********************************************************************************
```

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #48 Durant Avenue / Piedmont Avenue
********************************************************************************
Cycle (sec):         100         Critical Vol./Cap. (X):         0.857
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    27.3
Optimal Cycle:         0          Level Of Service:               D
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0      0    0    0      0    0    0      0    0    0
Lanes:         0  0  1  0  0    0  0  1  0  0    1  0  0  0  1    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0  398    0      0  427    0    179    0  197      0    0    0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   0  398    0      0  427    0    179    0  197      0    0    0
Added Vol:     0   41    0      0   22    0      5    0    0      0    0    0
Future:        0   70    0      0   50    0     40    0   40      0    0    0
Initial Fut:   0  509    0      0  499    0    224    0  237      0    0    0
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    0  509    0      0  499    0    224    0  237      0    0    0
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   0  509    0      0  499    0    224    0  237      0    0    0
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    0  509    0      0  499    0    224    0  237      0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:      0.00 1.00 0.00   0.00 1.00 0.00   1.00 0.00 1.00   0.00 0.00 0.00
Final Sat.:    0  594    0      0  592    0    466    0  550      0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx 0.86 xxxx   xxxx 0.84 xxxx   0.48 xxxx 0.43   xxxx xxxx xxxx
Crit Moves:      ****             ****             ****
Delay/Veh:   0.0 33.8  0.0    0.0 32.2  0.0   16.5  0.0 13.4    0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  0.0 33.8  0.0    0.0 32.2  0.0   16.5  0.0 13.4    0.0  0.0  0.0
LOS by Move:   *    D    *      *    D    *      C    *    B      *    *    *
ApproachDel:     33.8             32.2             14.9           xxxxxx
Delay Adj:       1.00             1.00             1.00           xxxxx
ApprAdjDel:      33.8             32.2             14.9           xxxxxx
LOS by Appr:       D                D                B                *
********************************************************************************
```

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #49 Channing Way / Shattuck Avenue
********************************************************************************
Cycle (sec):          75         Critical Vol./Cap. (X):         0.791
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):     9.2
Optimal Cycle:        59          Level Of Service:               A
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   16   16   16     16   16   16     22   22   22     22   22   22
Lanes:         1  0  1  1  0    1  0  1  1  0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     83 1279   94     19 1089   49     18   76   81    144   97  106
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  83 1279   94     19 1089   49     18   76   81    144   97  106
Added Vol:     0    3    6      0   44    0      0    0    0     24    0   26
Future:       10  180   20     50  110   90     30   80   20     30   20   30
Initial Fut:  93 1462  120     69 1243  139     48  156  101    198  117  162
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:   93 1462  120     69 1243  139     48  156  101    198  117  162
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  93 1462  120     69 1243  139     48  156  101    198  117  162
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   93 1462  120     69 1243  139     48  156  101    198  117  162
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 1.00 0.94 0.94   0.09 0.94 0.94   0.96 0.96 0.96   0.95 0.95 0.95
Lanes:      1.00 1.85 0.15   1.00 1.80 0.20   0.16 0.51 0.33   0.41 0.25 0.34
Final Sat.: 1900 3299  271    171 3198  358    286  928  601    752  445  616
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.05 0.44 0.44   0.40 0.39 0.39   0.17 0.17 0.17   0.26 0.26 0.26
Crit Moves:      ****                                               ****
Green/Cycle: 0.56 0.56 0.56   0.59 0.59 0.59   0.33 0.33 0.33   0.33 0.33 0.33
Volume/Cap: 0.09 0.79 0.79   0.68 0.66 0.66   0.50 0.50 0.50   0.79 0.79 0.79
Delay/Veh:   1.3  5.2  5.2   31.3  1.9  1.9   23.1 23.1 23.1   32.8 32.8 32.8
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  1.3  5.2  5.2   31.3  1.9  1.9   23.1 23.1 23.1   32.8 32.8 32.8
DesignQueue:   2   30    2      1   23    3      1    5    3      6    3    5
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour

                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
****
Intersection #50 Channing Way / Fulton Street
****
Cycle (sec):   100   Critical Vol./Cap. (X):   0.828
Loss Time (sec):   0 (Y+R = 4 sec) Average Delay (sec/veh):   26.6
Optimal Cycle: 0   Level Of Service: D
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Stop Sign   Stop Sign   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 0   0   0 0   0   1   0 1   0   0   0 1   0   1   0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0   0   0   48 686   61   0 133   38   15 257   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   0   0   48 686   61   0 133   38   15 257   0
Added Vol: 0   0   0   4   0   0   0   6   0   0   50   0
Future: 0   0   0   10 100   0   0 110   30   10   70   0
Initial Fut: 0   0   0   62 786   61   0 249   68   25 377   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0   0   0   62 786   61   0 249   68   25 377   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0   0   0   62 786   61   0 249   68   25 377   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0   0   0   62 786   61   0 249   68   25 377   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.14 1.73 0.13 0.00 0.79 0.21 0.06 0.94 0.00
Final Sat.:   0   0   0   75 961   76   0 439 120   35 529   0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: xxxx xxxx xxxx 0.83 0.82 0.81 xxxx 0.57 0.57 0.71 0.71 xxxx
Crit Moves: ****   ****   ****
Delay/Veh: 0.0 0.0 0.0 33.0 31.7 30.3   0.0 17.0 17.0 22.9 22.9 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 33.0 31.7 30.3   0.0 17.0 17.0 22.9 22.9 0.0
LOS by Move: *   *   *   D   D   D   *   C   C   C   C   *
ApproachDel: xxxxxx   31.7   17.0   22.9
Delay Adj: xxxxx   1.00   1.00   1.00
ApprAdjDel: xxxxxx   31.7   17.0   22.9
LOS by Appr: *   D   C   C
****

                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour

                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #51 Channing Way / Telegraph Avenue
****
Cycle (sec):   70   Critical Vol./Cap. (X):   OVERFLOW
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   16.4
Optimal Cycle: 180   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 18   18   18   0   0   0   17   17   0   0   17   17
Lanes: 0   1   0 1   0   0   0 0   0   1   0 0   0   0   0 1   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 1 Sep 1997 << 4:00 - 6:00 PM
Base Vol: 86 410   41   0   0   0   23 144   0   0 227   46
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 86 410   41   0   0   0   23 144   0   0 227   46
Added Vol: 0   0   9   0   0   0   0   10   0   0   50   2
Future: 10   40   30   0   0   0   0   30   80   40   30   0
Initial Fut: 96 450   80   0   0   0   23 184   80   40 307   48
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 96 450   80   0   0   0   23 184   80   40 307   48
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 96 450   80   0   0   0   23 184   80   40 307   48
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   96 450   80   0   0   0   23 184   80   40 307   48
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.91 0.91 0.91 1.00 1.00 1.00 0.95 0.95 0.96 0.74 0.98 0.98
Lanes: 0.31 1.44 0.25 0.00 0.00 0.00 0.11 0.89 0.00 0.00 0.86 0.14
Final Sat.: 533 2497 444   0   0   0   200 1599   0   0 1617 253
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.00 0.00 0.00 0.12 0.12 xxxx xxxx 0.19 0.19
Crit Moves: ****   ****
Green/Cycle: 0.26 0.26 0.26 0.00 0.00 0.00 0.63 0.63 0.63 0.63 0.63 0.63
Volume/Cap: 0.70 0.70 0.70 0.00 0.00 0.00 0.18 0.18 xxxx xxxx 0.30 0.30
Delay/Veh: 28.5 28.5 28.5   0.0 0.0 0.0   5.8 5.8 0.0   0.0 6.6 6.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 28.5 28.5 28.5   0.0 0.0 0.0   5.8 5.8 0.0   0.0 6.6 6.6
DesignQueue: 3   14   2   0   0   0   0   3   0   0   5   1
****

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------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                      2020 No Project Conditions
                         PM Peak Hour
------------------------------------------------------------------------
                 Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
************************************************************************
Intersection #52 Channing Way / College Avenue
************************************************************************
Cycle (sec):         65         Critical Vol./Cap. (X):        0.615
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   15.8
Optimal Cycle:       43         Level Of Service:                  B
************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  18   18   18    18   18   18    17   17   17    17   17   17
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    31  189   41     7  206   24     5   95   58   124  141   47
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 31  189   41     7  206   24     5   95   58   124  141   47
Added Vol:    3    4    0     0   15    0     0   78   16     1   12    0
Future:      30   60   30     0   40   10    30   40   40    40   20   30
Initial Fut: 64  253   71     7  261   34    35  213  114   165  173   77
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  64  253   71     7  261   34    35  213  114   165  173   77
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 64  253   71     7  261   34    35  213  114   165  173   77
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  64  253   71     7  261   34    35  213  114   165  173   77
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.88 0.88 0.88  0.98 0.98 0.98  0.90 0.90 0.90  0.71 0.71 0.71
Lanes:      0.16 0.66 0.18  0.02 0.87 0.11  0.10 0.59 0.31  0.40 0.42 0.18
Final Sat.:  275 1087  305    43 1603  209   165 1007  539   538  564  251
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.23 0.23 0.23  0.16 0.16 0.16  0.21 0.21 0.21  0.31 0.31 0.31
Crit Moves:      ****                                            ****
Green/Cycle: 0.38 0.38 0.38  0.38 0.38 0.38  0.50 0.50 0.50  0.50 0.50 0.50
Volume/Cap: 0.62 0.62 0.62  0.43 0.43 0.43  0.42 0.42 0.42  0.62 0.62 0.62
Delay/Veh:  19.5 19.5 19.5  15.7 15.7 15.7  11.9 11.9 11.9  16.0 16.0 16.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 19.5 19.5 19.5  15.7 15.7 15.7  11.9 11.9 11.9  16.0 16.0 16.0
DesignQueue:  2    6    2     0    6    1     1    4    2     3    3    1
************************************************************************
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------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                      2020 No Project Conditions
                         PM Peak Hour
------------------------------------------------------------------------
                 Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
************************************************************************
Intersection #53 Haste Street / Shattuck Avenue
************************************************************************
Cycle (sec):         75         Critical Vol./Cap. (X):        0.950
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   14.7
Optimal Cycle:      114         Level Of Service:                  B
************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  22   22    0     0   22   22     0    0    0    27   27   27
Lanes:        1  0  2  0  0   0  0  1  1  0   0  0  0  0  0   0  1  0  1  0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:   104 1277    0     0 1208   88     0    0    0   268  336  152
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 104 1277    0     0 1208   88     0    0    0   268  336  152
Added Vol:    0    8    0     0   51   17     0    0    0    32   67    0
Future:      30  160    0     0  130   20     0    0    0    40   80   40
Initial Fut: 134 1445    0     0 1389  125     0    0    0   340  483  192
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 134 1445    0     0 1389  125     0    0    0   340  483  192
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 134 1445    0     0 1389  125     0    0    0   340  483  192
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 134 1445    0     0 1389  125     0    0    0   340  483  192
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.13 0.95 1.00  1.00 0.94 0.94  1.00 1.00 1.00  0.90 0.90 0.90
Lanes:      1.00 2.00 0.00  0.00 1.83 0.17  0.00 0.00 0.00  0.67 0.95 0.38
Final Sat.:  243 3610    0     0 3272  294     0    0    0  1142 1623  645
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.55 0.40 0.00  0.00 0.42 0.42  0.00 0.00 0.00  0.30 0.30 0.30
Crit Moves: ****                                                ****
Green/Cycle: 0.53 0.53 0.00  0.00 0.53 0.53  0.00 0.00 0.00  0.36 0.36 0.36
Volume/Cap: 1.03 0.75 0.00  0.00 0.80 0.80  0.00 0.00 0.00  0.83 0.83 0.83
Delay/Veh:  92.3  6.0  0.0   0.0  6.9  6.9   0.0  0.0  0.0  28.3 28.3 28.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 92.3  6.0  0.0   0.0  6.9  6.9   0.0  0.0  0.0  28.3 28.3 28.3
DesignQueue:  3   31    0     0   30    3     0    0    0    10   14    6
************************************************************************
```

UC Berkeley LRDP EIR
2020 No Project Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #54 Haste Street / Fulton Street
****

Cycle (sec): 80	Critical Vol./Cap. (X):	0.543
Loss Time (sec): 8 (Y+R = 4 sec)	Average Delay (sec/veh):	22.8
Optimal Cycle: 53	Level Of Service:	C

****

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 25 25	0 0 0	20 20 0
Lanes:	0 0 0 0 0	0 0 1 1 0	0 0 0 0 0	0 1 1 0 0

Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM

	North Bound	South Bound	East Bound	West Bound
Base Vol:	0 0 0	0 580 154	0 0 0	50 604 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 0 0	0 580 154	0 0 0	50 604 0
Added Vol:	0 0 0	0 0 0	0 0 0	0 99 0
Future:	0 0 0	0 70 80	0 0 0	30 60 0
Initial Fut:	0 0 0	0 650 234	0 0 0	80 763 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	0 0 0	0 650 234	0 0 0	80 763 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	0 650 234	0 0 0	80 763 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 0	0 650 234	0 0 0	80 763 0

Saturation Flow Module:

	North Bound	South Bound	East Bound	West Bound
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 1.00 1.00	1.00 0.91 0.91	1.00 1.00 1.00	0.95 0.95 1.00
Lanes:	0.00 0.00 0.00	0.00 1.47 0.53	0.00 0.00 0.00	0.19 1.81 0.00
Final Sat.:	0 0 0	0 2548 917	0 0 0	343 3267 0

Capacity Analysis Module:

	North Bound	South Bound	East Bound	West Bound
Vol/Sat:	0.00 0.00 0.00	0.00 0.26 0.26	0.00 0.00 0.00	0.23 0.23 0.00
Crit Moves:		****		****
Green/Cycle:	0.00 0.00 0.00	0.00 0.69 0.69	0.00 0.00 0.00	0.26 0.26 0.00
Volume/Cap:	0.00 0.00 0.00	0.00 0.37 0.37	0.00 0.00 0.00	0.89 0.89 0.00
Delay/Veh:	0.0 0.0 0.0	0.0 5.7 5.7	0.0 0.0 0.0	40.7 40.7 0.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0	0.0 5.7 5.7	0.0 0.0 0.0	40.7 40.7 0.0
DesignQueue:	0 0 0	0 10 3	0 0 0	3 27 0

****

UC Berkeley LRDP EIR
2020 No Project Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #55 Haste Street / Telegraph Avenue
****

Cycle (sec): 70	Critical Vol./Cap. (X):	0.482
Loss Time (sec): 8 (Y+R = 4 sec)	Average Delay (sec/veh):	14.4
Optimal Cycle: 40	Level Of Service:	B

****

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	16 16 0	0 0 0	0 0 0	0 16 16
Lanes:	0 1 1 0 0	0 0 0 0 0	0 0 0 0 0	0 0 1 1 0

Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM

	North Bound	South Bound	East Bound	West Bound
Base Vol:	186 476 0	0 0 0	0 0 0	0 470 57
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	186 476 0	0 0 0	0 0 0	0 470 57
Added Vol:	0 9 0	0 0 0	0 0 0	0 99 0
Future:	50 100 0	0 0 0	0 0 0	0 50 30
Initial Fut:	236 585 0	0 0 0	0 0 0	0 619 87
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	236 585 0	0 0 0	0 0 0	0 619 87
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	236 585 0	0 0 0	0 0 0	0 619 87
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	236 585 0	0 0 0	0 0 0	0 619 87

Saturation Flow Module:

	North Bound	South Bound	East Bound	West Bound
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.95 0.95 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 0.93 0.93
Lanes:	0.57 1.43 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 1.75 0.25
Final Sat.:	1038 2572 0	0 0 0	0 0 0	0 3108 437

Capacity Analysis Module:

	North Bound	South Bound	East Bound	West Bound
Vol/Sat:	0.23 0.23 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.20 0.20
Crit Moves:	****			****
Green/Cycle:	0.40 0.40 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.49 0.49
Volume/Cap:	0.57 0.57 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.41 0.41
Delay/Veh:	16.2 16.2 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 12.3 12.3
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	16.2 16.2 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 12.3 12.3
DesignQueue:	6 14 0	0 0 0	0 0 0	0 13 2

****

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CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31         Page 62-1      CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31         Page 63-1
------------------------------------------------------------------------   ------------------------------------------------------------------------
                         UC Berkeley LRDP EIR                                                       UC Berkeley LRDP EIR
                      2020 No Project Conditions                                                 2020 No Project Conditions
                           PM Peak Hour                                                              PM Peak Hour
------------------------------------------------------------------------   ------------------------------------------------------------------------
                  Level Of Service Computation Report                                        Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)                     2000 HCM Operations Method (Future Volume Alternative)
************************************************************************   ************************************************************************
Intersection #56 Haste Street / College Avenue                             Intersection #57 Dwight Way / Martin Luther King Way
************************************************************************   ************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):      0.489         Cycle (sec):        75          Critical Vol./Cap. (X):      0.961
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    11.4     Loss Time (sec):    12 (Y+R =  4 sec) Average Delay (sec/veh):    23.7
Optimal Cycle:      40          Level Of Service:              B           Optimal Cycle:     118          Level Of Service:              C
************************************************************************   ************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound  Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  - R  Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  - R
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Control:       Permitted       Permitted       Permitted       Permitted    Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include      Rights:         Include         Include         Include         Include
Min. Green:  16   16    0    0   16   16    0    0    0   16   16   16       Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0    1    0    0    0    0    1    0    0    0    0    0    1    0  Lanes:        0    1    0    1    0    0    1    0    1    0    0    1    0    1    0    0    0    0    0    0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM                 Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:    88  236    0    0  337   56    0    0    0   90  244   29       Base Vol:    71  821   60  113  860  272   49  444  111    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 88  236    0    0  337   56    0    0    0   90  244   29       Initial Bse: 71  821   60  113  860  272   49  444  111    0    0    0
Added Vol:    2    7    0    0   32    0    0    0    0    0    2    0       Added Vol:    0    0    0    0    7   51    0   10    0    0    0    0
Future:      30   70    0    0   80   30    0    0    0   30   30   40       Future:      10  220   10   20   90   10   20   50   10    0    0    0
Initial Fut: 120  313    0    0  449   86    0    0    0  120  276   69      Initial Fut: 81 1041   70  133  957  333   69  504  121    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 120  313    0    0  449   86    0    0    0  120  276   69       PHF Volume:  81 1041   70  133  957  333   69  504  121    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0       Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 120  313    0    0  449   86    0    0    0  120  276   69      Reduced Vol: 81 1041   70  133  957  333   69  504  121    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 120  313    0    0  449   86    0    0    0  120  276   69       Final Vol.:  81 1041   70  133  957  333   69  504  121    0    0    0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:                                                     Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900      Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.76 0.76 1.00 1.00 0.98 0.98 1.00 1.00 1.00 0.91 0.91 0.91     Adjustment: 0.68 0.68 0.68 0.62 0.62 0.62 0.90 0.90 0.90 1.00 1.00 1.00
Lanes:      0.28 0.72 0.00 0.00 0.84 0.16 0.00 0.00 0.00 0.51 1.19 0.30     Lanes:      0.13 1.75 0.12 0.19 1.34 0.47 0.20 1.45 0.35 0.00 0.00 0.00
Final Sat.:  402 1048    0    0 1559  299    0    0    0  891 2049  512      Final Sat.:  177 2271  153  220 1584  551  340 2487  597    0    0    0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:                                                   Capacity Analysis Module:
Vol/Sat:    0.30 0.30 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.13 0.13 0.13     Vol/Sat:    0.46 0.46 0.46 0.60 0.60 0.60 0.20 0.20 0.20 0.00 0.00 0.00
Crit Moves:      ****                                         ****          Crit Moves:                     ****           ****
Green/Cycle: 0.61 0.61 0.00 0.00 0.61 0.61 0.00 0.00 0.00 0.28 0.28 0.28    Green/Cycle: 0.63 0.63 0.63 0.63 0.63 0.63 0.21 0.21 0.21 0.00 0.00 0.00
Volume/Cap: 0.49 0.49 0.00 0.00 0.47 0.47 0.00 0.00 0.00 0.49 0.49 0.49     Volume/Cap: 0.73 0.73 0.73 0.96 0.96 0.96 0.96 0.96 0.96 0.00 0.00 0.00
Delay/Veh:   6.1  6.1  0.0  0.0  5.5  5.5  0.0  0.0  0.0 23.0 23.0 23.0      Delay/Veh:   7.6  7.6  7.6 22.2 22.2 22.2 54.4 54.4 54.4  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00    User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  6.1  6.1  0.0  0.0  5.5  5.5  0.0  0.0  0.0 23.0 23.0 23.0      AdjDel/Veh:  7.6  7.6  7.6 22.2 22.2 22.2 54.4 54.4 54.4  0.0  0.0  0.0
DesignQueue:  2    5    0    0    7    1    0    0    0    3    8    2       DesignQueue:  1   18    1    2   16    6    2   17    4    0    0    0
************************************************************************   ************************************************************************


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CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31          Page 64-1     CUMULATIVE + LAB PM        Thu Mar 18, 2004 11:36:31          Page 65-1
--------------------------------------------------------------------------   --------------------------------------------------------------------------
                         UC Berkeley LRDP EIR                                                         UC Berkeley LRDP EIR
                     2020 No Project Conditions                                                   2020 No Project Conditions
                           PM Peak Hour                                                                PM Peak Hour
--------------------------------------------------------------------------   --------------------------------------------------------------------------
                  Level Of Service Computation Report                                          Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)                       2000 HCM Operations Method (Future Volume Alternative)
****************************************************************************   ****************************************************************************
Intersection #58 Dwight Way / Shattuck Avenue                                Intersection #59 Dwight Way / Fulton Street
****************************************************************************   ****************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):       0.912          Cycle (sec):        75          Critical Vol./Cap. (X):       0.610
Loss Time (sec):    12 (Y+R =  5 sec) Average Delay (sec/veh):    15.7       Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    17.1
Optimal Cycle:      97          Level Of Service:                B           Optimal Cycle:      45          Level Of Service:                B
****************************************************************************   ****************************************************************************
Approach:      North Bound    South Bound    East Bound    West Bound        Approach:      North Bound    South Bound    East Bound    West Bound
Movement:    L - T - R    L - T - R    L - T - R    L - T - R                Movement:    L - T - R    L - T - R    L - T - R    L - T - R
-----------|---------------||---------------||---------------||-------------| -----------|---------------||---------------||---------------||-------------|
Control:       Permitted      Prot+Permit     Permitted      Permitted       Control:       Permitted      Permitted      Permitted      Permitted
Rights:         Include         Include         Include        Include       Rights:         Include         Include         Include        Include
Min. Green:   0   0   0    0   0   0    0   0   0    0   0   0               Min. Green:   0   0  21   21   0   0    0  16  16    0   0   0
Lanes:        0   0   1  1 0    1 0   1  1 0    0   1 0   1 0    0   0   0  0 Lanes:        0   0   0  0 1    2 0   0   0 0    0   0   1  1 0    0   0   0  0
-----------|---------------||---------------||---------------||-------------| -----------|---------------||---------------||---------------||-------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM                  Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       0 1273  123  133 1390    0   77  426  200    0    0    0      Base Vol:       0    0   62  631    0    0    0  664   15    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    0 1273  123  133 1390    0   77  426  200    0    0    0      Initial Bse:    0    0   62  631    0    0    0  664   15    0    0    0
Added Vol:      0    8    0    6   77    0    0   10    0    0    0    0       Added Vol:      0    0    0    0    0    0    0   15    0    0    0    0
Future:         0  160   30   10  140    0   10   50   10    0    0    0       Future:         0    0   20  100    0    0    0   60   30    0    0    0
Initial Fut:    0 1441  153  149 1607    0   87  486  210    0    0    0      Initial Fut:    0    0   82  731    0    0    0  739   45    0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     0 1441  153  149 1607    0   87  486  210    0    0    0      PHF Volume:     0    0   82  731    0    0    0  739   45    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0       Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    0 1441  153  149 1607    0   87  486  210    0    0    0      Reduced Vol:    0    0   82  731    0    0    0  739   45    0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:     0 1441  153  149 1607    0   87  486  210    0    0    0      Final Vol.:     0    0   82  731    0    0    0  739   45    0    0    0
-----------|---------------||---------------||---------------||-------------| -----------|---------------||---------------||---------------||-------------|
Saturation Flow Module:                                                      Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900     Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  1.00 0.94 0.94 0.24 0.95 0.95 0.88 0.88 0.88 1.00 1.00 1.00     Adjustment:  1.00 1.00 0.87 0.59 1.00 1.00 1.00 0.94 0.94 1.00 1.00 1.00
Lanes:       0.00 1.81 0.19 1.00 2.00 0.00 0.22 1.24 0.54 0.00 0.00 0.00     Lanes:       0.00 0.00 1.00 2.00 0.00 0.00 0.00 1.89 0.11 0.00 0.00 0.00
Final Sat.:     0 3218  342  455 3610    0  370 2065  892    0    0    0      Final Sat.:     0    0 1644 2245    0    0    0 3372  205    0    0    0
-----------|---------------||---------------||---------------||-------------| -----------|---------------||---------------||---------------||-------------|
Capacity Analysis Module:                                                    Capacity Analysis Module:
Vol/Sat:     0.00 0.45 0.45 0.33 0.45 0.00 0.24 0.24 0.24 0.00 0.00 0.00     Vol/Sat:     0.00 0.00 0.05 0.33 0.00 0.00 0.00 0.22 0.22 0.00 0.00 0.00
Crit Moves:       ****         ****              ****                        Crit Moves:                    ****              ****
Green/Cycle: 0.00 0.49 0.49 0.58 0.58 0.00 0.26 0.26 0.26 0.00 0.00 0.00     Green/Cycle: 0.00 0.00 0.53 0.53 0.00 0.00 0.00 0.36 0.36 0.00 0.00 0.00
Volume/Cap:  0.00 0.91 0.91 0.56 0.77 0.00 0.91 0.91 0.91 0.00 0.00 0.00     Volume/Cap:  0.00 0.00 0.09 0.61 0.00 0.00 0.00 0.61 0.61 0.00 0.00 0.00
Delay/Veh:    0.0 15.0 15.0 12.8  3.6  0.0 42.5 42.5 42.5  0.0  0.0  0.0      Delay/Veh:    0.0  0.0  8.8 14.4  0.0  0.0  0.0 20.6 20.6  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   0.0 15.0 15.0 12.8  3.6  0.0 42.5 42.5 42.5  0.0  0.0  0.0      AdjDel/Veh:   0.0  0.0  8.8 14.4  0.0  0.0  0.0 20.6 20.6  0.0  0.0  0.0
DesignQueue:    0   34    4    6   32    0    3   16    7    0    0    0       DesignQueue:    0    0    2   15    0    0    0   21    1    0    0    0
****************************************************************************   ****************************************************************************


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                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                           PM Peak Hour

                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #60 Dwight Way / Telegraph Avenue
****
Cycle (sec):   70   Critical Vol./Cap. (X):   0.948
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   29.6
Optimal Cycle: 107   Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 0   15   15   0   0   0   17   17   17   0   0   0
Lanes: 0 0 1 1 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0   590 149   0   0   0   130 671 813   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   590 149   0   0   0   130 671 813   0   0   0
Added Vol: 0   0   0   0   0   0   9   7   0   0   0   0
Future: 0   120   10   0   0   0   10   60 100   0   0   0
Initial Fut: 0   710 159   0   0   0   149 738 913   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0   710 159   0   0   0   149 738 913   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0   710 159   0   0   0   149 738 913   0   0   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0   710 159   0   0   0   149 738 913   0   0   0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 1.00 1.00 1.00 0.81 0.81 0.81 1.00 1.00 1.00
Lanes: 0.00 1.63 0.37 0.00 0.00 0.00 0.17 0.83 1.00 0.00 0.00 0.00
Final Sat.:   0 2870 643   0   0   0   259 1282 1541   0   0   0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.25 0.00 0.00 0.00 0.58 0.58 0.59 0.00 0.00 0.00
Crit Moves: ****   ****
Green/Cycle: 0.00 0.26 0.26 0.00 0.00 0.00 0.62 0.62 0.62 0.00 0.00 0.00
Volume/Cap: 0.00 0.95 0.95 0.00 0.00 0.00 0.92 0.92 0.95 0.00 0.00 0.00
Delay/Veh: 0.0 45.3 45.3 0.0 0.0 0.0 20.3 20.3 23.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 45.3 45.3 0.0 0.0 0.0 20.3 20.3 23.7 0.0 0.0 0.0
DesignQueue: 0   22   5   0   0   0   2   12   15   0   0   0
****

                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                           PM Peak Hour

                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #61 Dwight Way / College Avenue
****
Cycle (sec):   70   Critical Vol./Cap. (X):   0.596
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   14.2
Optimal Cycle: 39   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 0   16   16   16   16   0   15   15   15   0   0   0
Lanes: 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0   294   52   49 374   0   34 483 129   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   294   52   49 374   0   34 483 129   0   0   0
Added Vol: 0   9   0   0   32   0   1   6   0   0   0   0
Future: 0   50   60   20   80   0   30   0   10   0   0   0
Initial Fut: 0   353 112   69 486   0   65 489 139   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0   353 112   69 486   0   65 489 139   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0   353 112   69 486   0   65 489 139   0   0   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0   353 112   69 486   0   65 489 139   0   0   0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.97 0.97 0.90 0.90 1.00 0.89 0.89 0.89 1.00 1.00 1.00
Lanes: 0.00 0.76 0.24 0.12 0.88 0.00 0.19 1.41 0.40 0.00 0.00 0.00
Final Sat.:   0 1395 443 213 1499   0   319 2397 681   0   0   0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.25 0.32 0.32 0.00 0.20 0.20 0.20 0.00 0.00 0.00
Crit Moves: ****   ****
Green/Cycle: 0.00 0.54 0.54 0.54 0.54 0.00 0.34 0.34 0.34 0.00 0.00 0.00
Volume/Cap: 0.00 0.47 0.47 0.60 0.60 0.00 0.60 0.60 0.60 0.00 0.00 0.00
Delay/Veh: 0.0 8.3 8.3 10.3 10.3 0.0 21.3 21.3 21.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.3 8.3 10.3 10.3 0.0 21.3 21.3 21.3 0.0 0.0 0.0
DesignQueue: 0   7   2   1   9   0   2   13   4   0   0   0
****

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                             UC Berkeley LRDP EIR
                           2020 No Project Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #62 Dwight Way / Piedmont Avenue / Warring Street
********************************************************************************
Cycle (sec):          70          Critical Vol./Cap. (X):          0.447
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):      13.4
Optimal Cycle:        61          Level Of Service:                    B
********************************************************************************
Approach:        North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted         Permitted         Permitted         Permitted
Rights:          Include           Include           Include           Include
Min. Green:    0   29   29    29   29    0    24   24   24    24    0   24
Lanes:         0  0  1  1  0    0  1  1  0  0    1  0  1  0  1    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0  527    1     8  353    0   132  162  307    53    0   112
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  527    1     8  353    0   132  162  307    53    0   112
Added Vol:     0   10    0     0   54    0     0    0    6     0    0     0
Future:        0   80   20    10   30    0    20   10   40    30    0    10
Initial Fut:   0  617   21    18  437    0   152  172  353    83    0   122
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0  617   21    18  437    0   152  172  353    83    0   122
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0     0
Reduced Vol:   0  617   21    18  437    0   152  172  353    83    0   122
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  617   21    18  437    0   152  172  353    83    0   122
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.95 0.95  0.88 0.88 1.00  0.66 1.00 0.85  0.76 1.00 0.76
Lanes:      0.00 1.93 0.07  0.08 1.92 0.00  1.00 1.00 1.00  0.40 0.00 0.60
Final Sat.:    0 3474  118   132 3200    0  1252 1900 1615   586    0  861
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.18 0.18  0.14 0.14 0.00  0.12 0.09 0.22  0.14 0.00 0.14
Crit Moves:       ****                            ****
Green/Cycle: 0.00 0.41 0.41  0.41 0.41 0.00  0.47 0.47 0.47  0.47 0.00 0.47
Volume/Cap: 0.00 0.43 0.43  0.33 0.33 0.00  0.26 0.19 0.46  0.30 0.00 0.30
Delay/Veh:   0.0 14.8 14.8  14.0 14.0  0.0  11.4 10.9 13.0  11.6  0.0 11.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 14.8 14.8  14.0 14.0  0.0  11.4 10.9 13.0  11.6  0.0 11.6
DesignQueue:   0   15    0     0   10    0     3    4    8     2    0     3
********************************************************************************
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                             UC Berkeley LRDP EIR
                           2020 No Project Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #63 Dwight Avenue / Prospect Street
********************************************************************************
Average Delay (sec/veh):     5.6          Worst Case Level Of Service:       B
********************************************************************************
Approach:     North Bound       South Bound       East Bound        West Bound
Movement:   L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign         Stop Sign        Uncontrolled      Uncontrolled
Rights:         Include           Include           Include           Include
Lanes:      0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0    27    0  165   187  128    0     0   93   16
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0    27    0  165   187  128    0     0   93   16
Added Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Future:        0    0    0    10    0   20    20   20    0     0   20    0
Initial Fut:   0    0    0    37    0  185   207  148    0     0  113   16
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0    37    0  185   207  148    0     0  113   16
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    0    0    0    37    0  185   207  148    0     0  113   16
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx  6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  683 xxxx  121   129 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  418 xxxx  936  1469 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  367 xxxx  936  1469 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  7.9 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     A    *    *     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx  744 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx 11.9 xxxxx  7.9 xxxx xxxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   *    *    *     *    B    *     A    *    *     *    *    *
ApproachDel:   xxxxxx            11.9            xxxxxx            xxxxxx
ApproachLOS:     *                 B                *                *
```

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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #64 Adeline Street / Ward Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):          90          Critical Vol./Cap. (X):          0.985
Loss Time (sec):       8 (Y+R =  6 sec) Average Delay (sec/veh):     31.6
Optimal Cycle:       168          Level Of Service:                    C
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           ------------|---------------||---------------||---------------|
Control:        Permitted        Permitted        Protected        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   25   25    0   25   25   19    0   19    0    0    0
Lanes:        0    0    0 1 0    0    0  2 0 1    2 0    0    0 1    0 0    0 0 1
           ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0  690    5    0  957  825  903    0    2    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  690    5    0  957  825  903    0    2    0    0    0
Added Vol:    0    4    0    0   38   36    4    0    0    0    0    0
Future:       0   50    0    0   50  110  130    0    0    0    0    0
Initial Fut:  0  744    5    0 1045  971 1037    0    2    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  744    5    0 1045  971 1037    0    2    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0

Reduced Vol:  0  744    5    0 1045  971 1037    0    2    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  744    5    0 1045  971 1037    0    2    0    0    0
           ------------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.95 0.85 0.92 1.00 0.85 1.00 1.00 1.00
Lanes:      0.00 0.99 0.01 0.00 2.00 1.00 2.00 0.00 1.00 0.00 0.00 1.00
Final Sat.:   0 1885   13    0 3610 1615 3502    0 1615    0    0 1900
           ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.39 0.39 0.00 0.29 0.60 0.30 0.00 0.00 0.00 0.00 0.00
Crit Moves:              ****           ****
Green/Cycle: 0.00 0.61 0.61 0.00 0.61 0.61 0.30 0.00 0.30 0.00 0.00 0.00
Volume/Cap: 0.00 0.65 0.65 0.00 0.47 0.98 0.98 0.00 0.00 0.00 0.00 0.00
Delay/Veh:   0.0 14.1 14.1  0.0 10.3 42.4 55.6  0.0 22.0  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 14.1 14.1  0.0 10.3 42.4 55.6  0.0 22.0  0.0  0.0  0.0
DesignQueue:  0   16    0    0   22   22   39    0    0    0    0    0
********************************************************************************
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                          UC Berkeley LRDP EIR
                        2020 No Project Conditions
                              PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #65 Derby Street / Warring Street
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):          1.627
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    259.9
Optimal Cycle:         0          Level Of Service:                    F
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           ------------|---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0    0    0 0 0    0    0 1! 0 0    0 1    0 0    0    0 0    0 1 0
           ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0    0    0  765    0   30    7   62    0    0   75  780
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0    0  765    0   30    7   62    0    0   75  780
Added Vol:    0    0    0   60    0    0    0    0    0    0    0   10
PasserByVol:  0    0    0  110    0   10    0    0    0    0    0  120
Initial Fut:  0    0    0  935    0   40    7   62    0    0   75  910
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0    0    0  935    0   40    7   62    0    0   75  910
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0    0    0  935    0   40    7   62    0    0   75  910
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0    0    0  935    0   40    7   62    0    0   75  910
           ------------|---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.00 0.00 0.00 0.96 0.00 0.04 0.10 0.90 0.00 0.00 0.08 0.92
Final Sat.:   0    0    0  575    0   25   53  471    0    0   51  623
           ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx xxxx xxxx 1.63 xxxx 1.63 0.13 0.13 xxxx xxxx 1.46 1.46
Crit Moves:                ****           ****           ****
Delay/Veh:   0.0  0.0  0.0 306.0 0.0 306.0 10.9 10.9  0.0  0.0 232 231.7
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 306.0 0.0 306.0 10.9 10.9  0.0  0.0 232 231.7
LOS by Move:  *    *    *    F    *    F    B    B    *    *    F    F
ApproachDel: xxxxxx         306.0            10.9           231.7
Delay Adj:   xxxxx          1.00             1.00            1.00
ApprAdjDel:  xxxxxx         306.0            10.9           231.7
LOS by Appr:    *             F                B               F
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #66 Derby Street / Claremont Blvd.
********************************************************************************
Cycle (sec):         65         Critical Vol./Cap. (X):          0.798
Loss Time (sec):      8 (Y+R =  5 sec) Average Delay (sec/veh):   22.8
Optimal Cycle:       61         Level Of Service:                  C
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18    0   18    0    0    0    0   35   35   35   35    0
Lanes:        0  0 1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     4    0  225    0    0    0    0  872   11   31  741    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  4    0  225    0    0    0    0  872   11   31  741    0
Added Vol:    0    0    0    0    0    0    0   60    0    0   10    0
PasserByVol:  0    0    0    0    0    0    0  120    0    0  120    0
Initial Fut:  4    0  225    0    0    0    0 1052   11   31  871    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   4    0  225    0    0    0    0 1052   11   31  871    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  4    0  225    0    0    0    0 1052   11   31  871    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   4    0  225    0    0    0    0 1052   11   31  871    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00
Lanes:      0.02 0.00 0.98 0.00 0.00 0.00 0.00 0.99 0.01 0.03 0.97 0.00
Final Sat.:  29    0 1614    0    0    0    0 1878   20   62 1739    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.14 0.00 0.14 0.00 0.00 0.00 0.00 0.56 0.56 0.50 0.50 0.00
Crit Moves: ****                              ****
Green/Cycle:0.28 0.00 0.28 0.00 0.00 0.00 0.00 0.60 0.60 0.60 0.60 0.00
Volume/Cap: 0.50 0.00 0.50 0.00 0.00 0.00 0.00 0.93 0.93 0.83 0.83 0.00
Delay/Veh:  23.7  0.0 23.7  0.0  0.0  0.0  0.0 26.6 26.6 18.0 18.0  0.0
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 23.7  0.0 23.7  0.0  0.0  0.0  0.0 26.6 26.6 18.0 18.0  0.0
DesignQueue:  0    0    6    0    0    0    0   18    0    1   14    0
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                          2020 No Project Conditions
                               PM Peak Hour
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                    Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #67 Ashby Avenue / Seventh Street
********************************************************************************
Cycle (sec):        110         Critical Vol./Cap. (X):          1.109
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):   88.2
Optimal Cycle:      180         Level Of Service:                  F
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Split Phase      Split Phase
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0  1  0  1  0    0  1  0  1  0    1  0  1  1  0    1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:   134  404   68  107  270  476  263  546  113   98  774   31
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:134  404   68  107  270  476  263  546  113   98  774   31
Added Vol:    0    0    0    0    0    0    0    5    0    0   39    0
Future:      60   60   10   90   30    0   30   60   60   20   60   70
Initial Fut:194  464   78  197  300  476  293  611  173  118  873  101
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 194  464   78  197  300  476  293  611  173  118  873  101
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:194  464   78  197  300  476  293  611  173  118  873  101
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 194  464   78  197  300  476  293  611  173  118  873  101
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.48 0.48 0.48 0.52 0.52 0.52 0.95 0.92 0.92 0.95 0.93 0.93
Lanes:      0.53 1.26 0.21 0.40 0.62 0.98 0.95 1.56 0.44 0.95 1.79 0.21
Final Sat.: 482 1153  194  402  613  972 1805 2721  770 1805 3184  368
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.40 0.40 0.40 0.49 0.49 0.49 0.16 0.22 0.22 0.07 0.27 0.27
Crit Moves:                     ****              ****           ****
Green/Cycle:0.44 0.44 0.44 0.44 0.44 0.44 0.20 0.20 0.20 0.25 0.25 0.25
Volume/Cap: 0.91 0.91 0.91 1.11 1.11 1.11 0.80 1.11 1.11 0.26 1.11 1.11
Delay/Veh:  45.1 45.1 45.1 95.7 95.7 95.7 60.7  114 114.1 35.6  107 107.3
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 45.1 45.1 45.1 95.7 95.7 95.7 60.7  114 114.1 35.6  107 107.3
DesignQueue:  7   17    3    7   11   17   15   31    9    6   43    5
********************************************************************************
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                       UC Berkeley LRDP EIR
                    2020 No Project Conditions
                          PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #68 Ashby Avenue / San Pablo Avenue
**************************************************************************
Cycle (sec):        110          Critical Vol./Cap. (X):        0.961
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   46.1
Optimal Cycle:      158          Level Of Service:                 D
**************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:    4   17   17    4   19   19    18   18   18    18   18   18
Lanes:       1 0  1  1 0    1 0  1  1 0    1 0  1  1 0    0 1  0  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:    162  999   79   185  873  113    86  592  170    20  612  143
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 162  999   79   185  873  113    86  592  170    20  612  143
Added Vol:     0    1    1     0    1   16     0    5    0    15   23    0
Future:       20  190   90    20  320   30    20   90   50    40   90   30
Initial Fut: 182 1190  170   205 1194  159   106  687  220    75  725  173
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 182 1190  170   205 1194  159   106  687  220    75  725  173
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 182 1190  170   205 1194  159   106  687  220    75  725  173
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 182 1190  170   205 1194  159   106  687  220    75  725  173
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.93 0.93  0.95 0.93 0.93  0.16 0.92 0.92  0.65 0.65 0.65
Lanes:      1.00 1.75 0.25  1.00 1.76 0.24  0.16 1.51 0.49  0.15 1.49 0.36
Final Sat.: 1805 3099  443  1805 3128  417   300 2636  844   191 1843  440
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.10 0.38 0.38  0.11 0.38 0.38  0.35 0.26 0.26  0.39 0.39 0.39
Crit Moves:      ****           ****                            ****
Green/Cycle: 0.11 0.40 0.40  0.12 0.41 0.41  0.41 0.41 0.41  0.41 0.41 0.41
Volume/Cap: 0.93 0.96 0.96  0.96 0.93 0.93  0.86 0.64 0.64  0.96 0.96 0.96
Delay/Veh:  93.9 47.7 47.7  98.6 42.1 42.1  68.7 23.9 23.9  47.4 47.4 47.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 93.9 47.7 47.7  98.6 42.1 42.1  68.7 23.9 23.9  47.4 47.4 47.4
DesignQueue:  10   48    7    11   48    6     4   26    8     3   28    7
**************************************************************************
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                       UC Berkeley LRDP EIR
                    2020 No Project Conditions
                          PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #69 Ashby Avenue / Adeline Street
**************************************************************************
Cycle (sec):        140          Critical Vol./Cap. (X):        0.605
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   39.2
Optimal Cycle:       86          Level Of Service:                 D
**************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Protected        Protected
Rights:         Include          Include          Include          Include
Min. Green:    4   32   32    6   38   38    4   22   22    4   32   32
Lanes:       1 0  1  1 0    1 0  2  1 0    1 0  1  1 0    1 0  1  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     92  693   85    31  700  169   135  491   39    68  547   39
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  92  693   85    31  700  169   135  491   39    68  547   39
Added Vol:     0    1    0     0    6   30     4    2    0     0    0    0
Future:       60   70   10    10   10   80    50  160   20    10   50   10
Initial Fut: 152  764   95    41  716  279   189  653   59    78  597   49
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 152  764   95    41  716  279   189  653   59    78  597   49
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 152  764   95    41  716  279   189  653   59    78  597   49
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 152  764   95    41  716  279   189  653   59    78  597   49
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.93 0.93  0.95 0.93 0.87  0.95 0.94 0.94  0.95 0.94 0.94
Lanes:      1.00 1.78 0.22  1.00 2.16 0.84  1.00 1.83 0.17  1.00 1.85 0.15
Final Sat.: 1805 3156  392  1805 3576 1393  1805 3271  296  1805 3299  271
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.08 0.24 0.24  0.02 0.20 0.20  0.10 0.20 0.20  0.04 0.18 0.18
Crit Moves: ****                 ****           ****                 ****
Green/Cycle: 0.14 0.43 0.43  0.04 0.33 0.33  0.17 0.39 0.39  0.08 0.30 0.30
Volume/Cap: 0.60 0.57 0.57  0.53 0.60 0.60  0.60 0.51 0.51  0.51 0.60 0.60
Delay/Veh:  60.8 30.8 30.8  72.4 39.8 39.8  60.5 30.0 30.0  71.4 42.4 42.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 60.8 30.8 30.8  72.4 39.8 39.8  60.5 30.0 30.0  71.4 42.4 42.4
DesignQueue:  10   36    4     3   39   15    12   33    3     6   34    3
**************************************************************************
```

                         UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             PM Peak Hour

                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #70 Ashby Avenue / Shattuck Avenue
****
Cycle (sec):   80   Critical Vol./Cap. (X):   0.723
Loss Time (sec):   12 (Y+R = 4 sec) Average Delay (sec/veh):   36.5
Optimal Cycle: 59   Level Of Service: D
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 21 21   21   6   21   21   20   20   20   20   20   20
Lanes: 0   1   0   1   0   1   0   1   0   1   0   1   0   1   0   1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 52 556   30   200 585   56   33 536   40   32 541 176
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 52 556   30   200 585   56   33 536   40   32 541 176
Added Vol: 0   3   0   10   26   0   0   2   0   0   0   0
Future: 10   10   10   20   20   10   10 170   20   10   60   20
Initial Fut: 62 569   40   230 631   66   43 708   60   42 601 196
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 62 569   40   230 631   66   43 708   60   42 601 196
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 62 569   40   230 631   66   43 708   60   42 601 196
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   62 569   40   230 631   66   43 708   60   42 601 196
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.49 0.49 0.49 0.90 0.90 0.90 0.90 0.90 0.90 0.88 0.88 0.88
Lanes: 0.18 1.70 0.12 0.50 1.36 0.14 0.11 1.74 0.15 0.10 1.43 0.47
Final Sat.:   171 1568 110   846 2321 243   181 2977 252   167 2383 777
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.36 0.36 0.36 0.27 0.27 0.27 0.24 0.24 0.24 0.25 0.25 0.25
Crit Moves: ****   ****
Green/Cycle: 0.33 0.33 0.33 0.32 0.32 0.32 0.52 0.52 0.52 0.52 0.52 0.52
Volume/Cap: 1.12 1.12 1.12 0.84 0.84 0.84 0.45 0.45 0.45 0.48 0.48 0.48
Delay/Veh: 99.9 99.9 99.9 32.6 32.6 32.6 12.7 12.7 12.7 13.0 13.0 13.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 99.9 99.9 99.9 32.6 32.6 32.6 12.7 12.7 12.7 13.0 13.0 13.0
DesignQueue: 2   18   1   7   20   2   1   16   1   1   13   4
****

                         UC Berkeley LRDP EIR
                       2020 No Project Conditions
                             PM Peak Hour

                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #71 Ashby Avenue / Telegraph Avenue
****
Cycle (sec):   80   Critical Vol./Cap. (X):   0.989
Loss Time (sec):   12 (Y+R = 6 sec) Average Delay (sec/veh):   26.8
Optimal Cycle: 104   Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Protected   Prot+Permit   Protected   Protected
Rights: Include   Include   Include   Include
Min. Green: 21 21   21   6   21   21   25   25   25   25   25   25
Lanes: 1   0   1   1   0   1   0   1   1   0   1   1   0   1   1   0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 210 675   75   176 902   63   68 531 184   148 642   99
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 210 675   75   176 902   63   68 531 184   148 642   99

Added Vol: 0   0   0   0   0   0   0   12   0   0   0   0
Future: 30   80   10   10   60   10   30 110   50   20   50   20
Initial Fut: 240 755   85   186 962   73   98 653 234   168 692 119
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 240 755   85   186 962   73   98 653 234   168 692 119
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 240 755   85   186 962   73   98 653 234   168 692 119
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   240 755   85   186 962   73   98 653 234   168 692 119
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.94 0.94 0.56 0.94 0.94 0.95 0.91 0.91 0.95 0.93 0.93
Lanes: 1.00 1.80 0.20 1.00 1.86 0.14 1.00 1.47 0.53 1.00 1.71 0.29
Final Sat.: 1805 3196 360 1072 3318 252 1805 2551 914 1805 3013 518
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.13 0.24 0.24 0.17 0.29 0.29 0.05 0.26 0.26 0.09 0.23 0.23
Crit Moves: ****   ****   ****   ****
Green/Cycle: 0.35 0.35 0.35 0.94 0.46 0.46 0.35 0.35 0.35 0.35 0.35 0.35
Volume/Cap: 0.38 0.67 0.67 0.18 0.64 0.64 0.16 0.73 0.73 0.27 0.66 0.66
Delay/Veh: 25.6 30.1 30.1   2.9 19.8 19.8 23.8 33.4 33.4 25.3 31.3 31.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 25.6 30.1 30.1   2.9 19.8 19.8 23.8 33.4 33.4 25.3 31.3 31.3
DesignQueue: 9   30   3   6   33   2   4   26   9   6   28   5
****

```
-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #72 Ashby Avenue / College Avenue
*************************************************************************
Cycle (sec):         80        Critical Vol./Cap. (X):         0.963
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):  37.1
Optimal Cycle:      129        Level Of Service:                   D
*************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound

Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   18  18  18      18  18  18      30  30  30      30  30  30
Lanes:         0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      75  293   68    159  279   58     15  683   87     10  466  151
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   75  293   68    159  279   58     15  683   87     10  466  151
Added Vol:      0    3    0     12   20    0      2   10    0      0    0    3
Future:        10   60   10     20   60   10     10  120   20     10   60   30
Initial Fut:   85  356   78    191  359   68     27  813  107     20  526  184
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    85  356   78    191  359   68     27  813  107     20  526  184
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   85  356   78    191  359   68     27  813  107     20  526  184
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    85  356   78    191  359   68     27  813  107     20  526  184
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:  0.76 0.76 0.76   0.99 0.99 0.99   0.99 0.99 0.99   0.97 0.97 0.97
Lanes:       0.16 0.69 0.15   0.31 0.58 0.11   0.03 0.86 0.11   0.03 0.72 0.25
Final Sat.:   235  986  216    578 1087  206     53 1607  211     50 1322  463
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.36 0.36 0.36   0.33 0.33 0.33   0.51 0.51 0.51   0.40 0.40 0.40
Crit Moves:       ****                             ****
Green/Cycle: 0.38 0.38 0.38   0.38 0.38 0.38   0.53 0.53 0.53   0.53 0.53 0.53
Volume/Cap:  0.96 0.96 0.96   0.88 0.88 0.88   0.96 0.96 0.96   0.76 0.76 0.76
Delay/Veh:   55.0 55.0 55.0   38.2 38.2 38.2   39.5 39.5 39.5   20.5 20.5 20.5
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  55.0 55.0 55.0   38.2 38.2 38.2   39.5 39.5 39.5   20.5 20.5 20.5
DesignQueue:    3   11    2      6   11    2      1   20    3      0   12    4
*************************************************************************


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```

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-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 No Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #73 Ashby Avenue / Claremont Avenue
*************************************************************************
Cycle (sec):         70        Critical Vol./Cap. (X):         0.744
Loss Time (sec):     12 (Y+R = 12 sec) Average Delay (sec/veh):  24.8
Optimal Cycle:       72        Level Of Service:                   C
*************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase       Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   16  16  16      16  16  16      28  28  28      28  28  28
Lanes:         0  1  0  1  0    1  1  0  1  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      45  373  189    432  285   49     47  592    5     66  504  232
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   45  373  189    432  285   49     47  592    5     66  504  232
Added Vol:      0    0    0     60    0    0      0   22    0      0    3   10
Future:        10   60   20     60   50   20     40  130   10     10   60   20
Initial Fut:   55  433  209    552  335   69     87  744   15     76  567  262
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    55  433  209    552  335   69     87  744   15     76  567  262
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   55  433  209    552  335   69     87  744   15     76  567  262
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    55  433  209    552  335   69     87  744   15     76  567  262
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:  0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95
Lanes:       0.16 1.24 0.60   1.73 1.05 0.22   0.21 1.76 0.03   0.17 1.25 0.58
Final Sat.:   285 2243 1082   3127 1898  391    371 3175   64    303 2262 1045
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.19 0.19   0.18 0.18 0.18   0.23 0.23 0.23   0.25 0.25 0.25
Crit Moves:  ****                   ****                             ****
Green/Cycle: 0.22 0.22 0.22   0.22 0.22 0.22   0.39 0.39 0.39   0.39 0.39 0.39
Volume/Cap:  0.87 0.87 0.87   0.79 0.79 0.79   0.60 0.60 0.60   0.64 0.64 0.64
Delay/Veh:   37.0 37.0 37.0   30.2 30.2 30.2   16.7 16.7 16.7   17.3 17.3 17.3
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  37.0 37.0 37.0   30.2 30.2 30.2   16.7 16.7 16.7   17.3 17.3 17.3
DesignQueue:    2   14    7     18   11    2      2   19    0      2   15    7
*************************************************************************


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                          UC Berkeley LRDP EIR
                      2020 No Project Conditions
                            PM Peak Hour

                   Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #74 Tunnel Road / SR 13
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.849
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   14.6
Optimal Cycle: 67   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Protected   Protected   Split Phase   Split Phase
Rights: Include   Include   Include   Ovl
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 0 0 2 0 1   2 0 1 0 0   0 0 0 0 0   1 0 0 0 2
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0 1130   256   534 1095   0   0   0   0   128   0   155
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1130   256   534 1095   0   0   0   0   128   0   155
Added Vol: 0   13   0   37   45   0   0   0   0   0   0   0
Future: 0   80   0   70 140   0   0   0   0   0   0   10
Initial Fut: 0 1223   256   641 1280   0   0   0   0   128   0   165
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1223   256   641 1280   0   0   0   0   128   0   165
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0 1223   256   641 1280   0   0   0   0   128   0   165
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0 1223   256   641 1280   0   0   0   0   128   0   165
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.85 0.92 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.75
Lanes: 0.00 2.00 1.00 2.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 2.00
Final Sat.:   0 3610 1615 3502 1900   0   0   0   0 1805   0 2842
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.34 0.16 0.18 0.67 0.00 0.00 0.00 0.00 0.07 0.00 0.06
Crit Moves: ****   ****   ****
Green/Cycle: 0.00 0.52 0.52 0.28 0.79 0.00 0.00 0.00 0.00 0.08 0.00 0.36
Volume/Cap: 0.00 0.66 0.31 0.66 0.85 0.00 0.00 0.00 0.00 0.85 0.00 0.16
Delay/Veh: 0.0 12.4   9.3 22.4 9.0   0.0   0.0 0.0   0.0 63.4 0.0 14.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 12.4   9.3 22.4 9.0   0.0   0.0 0.0   0.0 63.4 0.0 14.1
DesignQueue: 0   23   5   17   12   0   0   0   0   4   0   4
****

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                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                          AM Peak Hour

                          Scenario Report
Scenario: CUMULATIVE + LAB + PROJECT AM

Command: CUMULATIVE + PROJECT AM
Volume: CUMULATIVE AM
Geometry: CUMULATIVE + PROJECT AM
Impact Fee: Default Impact Fee
Trip Generation: AM LAB 2020 WITH PROJECT
Trip Distribution: Cumulative With Lab AM
Paths: Default Paths
Routes: Default Routes
Configuration: CUMULATIVE LAB AM

                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                          AM Peak Hour

                     Trip Generation Report

                    Forecast for AM Peak - new

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1 6701	San Pab	50.00	Office	1.37	0.19	69	10	79	4.8
			Zone 1 Subtotal			69	10	79	4.8
2 2000	Carleto	50.00	Office	1.37	0.19	69	10	79	4.8
			Zone 2 Subtotal			69	10	79	4.8
3		-1.00	Negative Parki	51.00	5.00	-51	-5	-56	-3.4
3		1.00	Parking	95.00	10.00	95	10	105	6.4
			Zone 3 Subtotal			44	5	49	3.0
4		1.00	Parking	127.00	13.00	127	13	140	8.5
			Zone 4 Subtotal			127	13	140	8.5
5		1.00	Parking	32.00	3.00	32	3	35	2.1
			Zone 5 Subtotal			32	3	35	2.1
6		1.00	Parking	95.00	10.00	95	10	105	6.4
			Zone 6 Subtotal			95	10	105	6.4
7		1.00	Parking	95.00	10.00	95	10	105	6.4
			Zone 7 Subtotal			95	10	105	6.4
8		1.00	Parking	32.00	3.00	32	3	35	2.1
			Zone 8 Subtotal			32	3	35	2.1
9		1.00	Parking	95.00	10.00	95	10	105	6.4
			Zone 9 Subtotal			95	10	105	6.4
10		1.00	Parking	159.00	16.00	159	16	175	10.6
			Zone 10 Subtotal			159	16	175	10.6
11		1.00	Parking	95.00	10.00	95	10	105	6.4
			Zone 11 Subtotal			95	10	105	6.4
12		-1.00	Negative Parki	45.00	4.00	-45	-4	-49	-3.0
			Zone 12 Subtotal			-45	-4	-49	-3.0
102	Blackberry O	1.00	LBNL Blackberr	0.00	0.00	0	0	0	0.0
103	Strawberry I	1.00	LBNL Strawberr	0.00	0.00	0	0	0	0.0
104	Strawberry O	1.00	LBNL Strawberr	0.00	0.00	0	0	0	0.0
105	Grizzly IN	1.00	LBNL Grizzly I	0.00	0.00	0	0	0	0.0
106	Grizzly OUT	1.00	LBNL Grizzly O	0.00	0.00	0	0	0	0.0

```
--------------------------------------------------------------------------
                       UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          AM Peak Hour
--------------------------------------------------------------------------
Zone                               Rate  Rate  Trips Trips Total % Of
 #   Subzone     Amount  Units      In    Out   In   Out  Trips Total

---- ------------ ------- -------------- ------ ------ ----- ----- ----- -----

--------------------------------------------------------------------------
TOTAL ................................................  867   96   963  58.5
```

```
--------------------------------------------------------------------------
                       UC Berkeley LRDP EIR
                    2020 With Project Conditions

                          AM Peak Hour
--------------------------------------------------------------------------

                     Trip Generation Report

                 Forecast for AM Peak - diverted
```

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
3		-1.00	Negative Parki	13.00	1.00	-13	-1	-14	-0.9
3		1.00	Parking	24.00	2.00	24	2	26	1.6
	Zone 3 Subtotal					11	1	12	0.7
4		1.00	Parking	32.00	3.00	32	3	35	2.1
	Zone 4 Subtotal					32	3	35	2.1
5		1.00	Parking	8.00	1.00	8	1	9	0.5
	Zone 5 Subtotal					8	1	9	0.5
6		1.00	Parking	24.00	2.00	24	2	26	1.6
	Zone 6 Subtotal					24	2	26	1.6
7		1.00	Parking	24.00	2.00	24	2	26	1.6
	Zone 7 Subtotal					24	2	26	1.6
8		1.00	Parking	8.00	1.00	8	1	9	0.5
	Zone 8 Subtotal					8	1	9	0.5
9		1.00	Parking	24.00	2.00	24	2	26	1.6
	Zone 9 Subtotal					24	2	26	1.6
10		1.00	Parking	40.00	4.00	40	4	44	2.7
	Zone 10 Subtotal					40	4	44	2.7
11		1.00	Parking	24.00	2.00	24	2	26	1.6
	Zone 11 Subtotal					24	2	26	1.6
12		-1.00	Negative Parki	11.00	1.00	-11	-1	-12	-0.7
	Zone 12 Subtotal					-11	-1	-12	-0.7

```
--------------------------------------------------------------------------
TOTAL ................................................  184   17   201  12.2
```

```
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                              AM Peak Hour
```

```
                         Trip Generation Report

                       Forecast for APPROVED AM
```

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
3		-1.00	Negative Parki	0.00	0.00	0	0	0	0.0
3		1.00	Parking	0.00	0.00	0	0	0	0.0
13	Lower Hearst	1.00	Approved Parki	44.00	4.00	44	4	48	2.9
	Zone 13 Subtotal					44	4	48	2.9
14	Underhill	1.00	Approved Parki	276.00	28.00	276	28	304	18.5
	Zone 14 Subtotal					276	28	304	18.5

```
TOTAL ................................................  320    32   352   21.4
```

```
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                              AM Peak Hour
```

```
                         Trip Generation Report

                        Forecast for AM LAB 2020
```

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
101	Blackberry I	1.00	LBNL Blackberr	64.00	0.00	64	0	64	3.9
	Zone 101 Subtotal					64	0	64	3.9
102	Blackberry O	1.00	LBNL Blackberr	0.00	11.00	0	11	11	0.7
	Zone 102 Subtotal					0	11	11	0.7
103	Strawberry I	1.00	LBNL Strawberr	19.00	0.00	19	0	19	1.2
	Zone 103 Subtotal					19	0	19	1.2
104	Strawberry O	1.00	LBNL Strawberr	0.00	3.00	0	3	3	0.2
	Zone 104 Subtotal					0	3	3	0.2
105	Grizzly IN	1.00	LBNL Grizzly I	32.00	0.00	32	0	32	1.9
	Zone 105 Subtotal					32	0	32	1.9
106	Grizzly OUT	1.00	LBNL Grizzly O	0.00	2.00	0	2	2	0.1
	Zone 106 Subtotal					0	2	2	0.1

```
TOTAL ................................................  115    16   131    8.0
```

UC Berkeley LRDP EIR
2020 With Project Conditions
AM Peak Hour

Trip Distribution Report

Percent Of Trips CUMULATIVE AM WITH LAB

| | | | | | | To Gates | | | | | |
Zone	1	2	3	4	5	6	7	8	9	10	11
1	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
2	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
3	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
4	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
5	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
6	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
7	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
8	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
9	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
10	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
11	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
12	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
13	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
14	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
101	5.6	0.0	5.6	0.0	10.3	11.6	19.5	22.5	11.9	0.0	3.0
102	6.0	0.0	14.0	0.0	8.0	10.0	18.0	20.0	10.0	0.0	2.0
103	5.7	0.0	8.9	0.0	10.0	11.1	17.8	23.3	12.2	0.0	2.2
104	9.1	0.0	27.2	0.0	9.1	9.1	9.1	18.2	18.2	0.0	0.0
105	5.3	0.0	14.7	0.0	9.3	10.0	16.7	20.7	12.0	0.0	2.0
106	11.1	0.0	11.1	0.0	11.1	11.1	22.2	22.2	11.2	0.0	0.0

| | | To Gates | | | | |
Zone	12	13	14	15	16	17
1	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0
101	3.0	1.3	1.3	2.3	1.0	1.1
102	2.0	2.0	2.0	2.0	2.0	2.0
103	2.2	1.1	1.1	2.2	1.1	1.1
104	0.0	0.0	0.0	0.0	0.0	0.0
105	2.0	1.3	1.3	2.0	1.3	1.4

UC Berkeley LRDP EIR
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| | | To Gates | | | | |
Zone	12	13	14	15	16	17
106	0.0	0.0	0.0	0.0	0.0	0.0

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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
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                        Turning Movement Report
        AM Peak - new + AM Peak - diverted + APPROVED AM + AM LAB 2020

Volume     Northbound        Southbound        Eastbound          Westbound    Total
Type    Left Thru Right   Left Thru Right   Left Thru Right   Left Thru Right Volume

#1 Marin Avenue / San Pablo Avenue
Base     102  363   59    106  891   15    38  672  235    147  768   90    3486
Added      1   14    1      7  144    0     0   20    8      4    2    2     203
Future   120  120   64     20  131   14    14   67   30     34  267   10     891
Total    223  497  124    133 1166   29    52  759  273    185 1037  102    4580

#2 Marin Avenue / The Alameda
Base     173  189    7     38  279   23    33  494  291     20  420   48    2015
Added      3    1    1      0    4    0     0   18    9      5    5    0      46
Future   110    0   10     10  190   20     0   70   50     10  170   10     650
Total    286  190   18     48  473   43    33  582  350     35  595   58    2711

#3 Gilman Street / Sixth Street
Base     122   24   56     11   45   28    21  416  114     47  430   20    1334
Added      1    0    0      0    0    0     0    1   10      0    0    0      12
Future    70    0   28      0   30    0     0   37   10     48   67    0     290
Total    193   24   84     11   75   28    21  454  134     95  497   20    1636

#4 Gilman Street / San Pablo Avenue
Base     113  401   25     74 1055  125    75  189   96     62  318   42    2575
Added      0   15    0      0  155    0     0    0    1      0    0    0     171
Future    30  305   60     60   70   20    35   20   10     10   40   32     692
Total    143  721   85    134 1280  145   110  209  107     72  358   74    3438

#5 Rose Street / Shattuck Avenue
Base      55  191   11    174  961   28    28  174   40     32  185   40    1919
Added      0    1    0      4   11    0     0    0    0      0    0    0      16
Future    40  140   20     10  170   10    10   10   20     20   10   10     470
Total     95  332   31    188 1142   38    38  184   60     52  195   50    2405

#6 Cedar Street / Martin Luther King Way
Base      33  292   44     35  617   26    14  276   62     58  248   30    1735
Added      0    3    1      0   15    0     0   13    1      4    1    0      38
Future    10   40   20     20  220   10    10   50   30     30   90   20     550
Total     43  335   65     55  852   36    24  339   93     92  339   50    2323

#7 Cedar Street / Shattuck Avenue
Base      48  256   41    127  933   52    44  257   86     94  268   56    2262
Added      0    1    0      2    9    0     0   14    0      4    6    0      36
Future    20  140   20     10  150   10    10   30   10     40   70   20     530
Total     68  397   61    139 1092   62    54  301   96    138  344   76    2828
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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
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Volume     Northbound        Southbound        Eastbound          Westbound    Total
Type    Left Thru Right   Left Thru Right   Left Thru Right   Left Thru Right Volume


#8 Cedar Street / Oxford Street
Base      45  186   56     34  531   19    18  314   75    144  343   19    1784
Added      2   13    0      0  115    9     1    0   15      0    0    0     155
Future    30   20   10     10   10    0    10   40   30     10  120   10     290
Total     77  219   66     44  656   28    29  354  120    154  463   19    2229

#9 Cedar Street / Euclid Avenue
Base      30   85   29     23  295  141    50  143  117     28  209    8    1158
Added      0    0    0      0   11    3     0   -2    0      0    0    0      12
Future    20    0    0      0   10   40    10   30   20     20   80    0     230
Total     50   85   29     23  316  184    60  171  137     48  289    8    1400

#10 Grizzly Peak Blvd / Centennial Drive
Base      31   13   13     25   52    4     6  165  143    169   90   16     727
Added      0    0    4      0    0    0     0    0    5     39    0    0      48
Future    30    0   10      0    0    0     0   20   10     20   10    0     100
Total     61   13   27     25   52    4     6  185  158    228  100   16     875

#11 Hearst Avenue / Shattuck Avenue
Base      19  291   43    199  810   57    31  278   24     11  225   51    2039
Added      3    1  -13      3   11    0     0   37   25      6    4    0      77
Future    10   90   20     50  160   20    30   30   30     10   20   70     540
Total     32  382   50    252  981   77    61  345   79     27  249  121    2656

#12 Hearst Avenue / Oxford Avenue
Base      46  328  374     48  841   38    10  399  114    207  281   27    2713
Added      0   59   59      3   99    3    19   10   -1      8    8   19     286
Future    20   50   40     10   30   20     0   80   30     30   70   10     390
Total     66  437  473     61  970   61    29  489  143    245  359   56    3389

#13 Hearst Avenue / Spruce Street
Base       0    0    0      9    0   63    11  843    0      0  430    7    1363
Added      0    0    0      4    0    0     0   72    0      0   35    1     112
Future     0    0    0      0    0   20     0  130    0      0  110    0     260
Total      0    0    0     13    0   83    11 1045    0      0  575    8    1735

#14 Hearst Avenue / Arch Street / Le Conte Avenue
Base       0    0    0      2    0  130   276  566    0      0  307    4    1285
Added      0    0    0      0    0    0     0   24   52      0   35    0     111
Future     0    0    0      0    0   40    30  100    0      0   90    0     260
Total      0    0    0      2    0  170   330  718    0      0  432    4    1656

#15 Hearst Avenue / Scenic Avenue
Base       0    0    0      0    0   37     0  531    0      0  290   55     913
Added      0    0    0      0    0    1     0    0    0      0   34    2      37
Future     0    0    0      0    0   20     0  100    0      0   90   10     220
Total      0    0    0      0    0   58     0  631    0      0  414   67    1170
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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
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Volume   Northbound      Southbound      Eastbound       Westbound   Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#16 Hearst Avenue / Euclid Avenue
Base      2    0    2   47    1  151   75  448    1    1  276   10   1014
Added     0    0    0    3    0    3    0   52    0    0   41    0     99
Future    0    0    0   10    0   50   10   90    0    0   70    0    230
Total     2    0    2   60    1  204   85  590    1    1  387   10   1343

#17 Hearst Avenue / Le Roy Avenue
Base      0    0    0   19    0   60   59  436    0    0  230    3    807
Added     0    0    0    0    0    0    0   55    0    0   42    0     97
Future    0    0    0    0    0   10   10   90    0    0   70    0    180
Total     0    0    0   19    0   70   69  581    0    0  342    3   1084

#18 Hearst Avenue / Gayley Road / LaLoma Avenue
Base    274  212   95   12  274   21   28  161  304   21   33    5   1440
Added    32    3   32    0   38    0    0   32   23    2    9    0    171
Future   70   10   20    0  120    0    0   80    0   20   20    0    340
Total   376  225  147   12  432   21   28  273  327   43   62    5   1951

#19 Berkeley Way / Oxford Street
Base     39  717   40   30 1132   11   20   18   72   10    2   12   2103
Added    38  115    0    0   80   26    3    0    4    0    0    0    266
PassBy   10  110   10    0  100    0    0    0   20    0    0    0    250
Total    87  942   50   30 1312   37   23   18   96   10    2   12   2619

#20 University Avenue / Sixth Street
Base    211  111   19   73  290  325   89  932  333   40  931   21   3375
Added     0   17   12    0    4    1    6  291    0    1   31    0    363
Future  150   60   10   10   10   80   10   60   40   10  150   10    600
Total   361  188   41   83  304  406  105 1283  373   51 1112   31   4338

#21 University Avenue / San Pablo Avenue
Base    100  457   75  190  837   83   56  957   49   63  644   93   3604
Added     0    3    7   74   50    0    0  303    1    1   31    9    479
Future   50  200   40   60   30   20   10   60   10   10  120  100    710
Total   150  660  122  324  917  103   66 1320   60   74  795  202   4793

#22 University Avenue / Martin Luther King Way
Base    178  568   80   57  833   87   81  703  185   41  477   47   3337
Added     1    3    3    0   14    0    2  386   -2    0   40    0    447
Future   70    0    0    0  230   30   10  130   20   20  160   80    750
Total   249  571   83   57 1077  117   93 1219  203   61  677  127   4534

#23 University Avenue / Milvia Street
Base    100   98   21    6  203   63   37  656  137   18  406   15   1760
Added     0    0    0    0    0    0    0  390    0    0   40    0    430
Future   10   10   10   10   10   10   20   80   20   20  240   20    460
Total   110  108   31   16  213   73   57 1126  157   38  686   35   2650


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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
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Volume   Northbound      Southbound      Eastbound       Westbound   Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#24 University Avenue / SB Shattuck Avenue
Base      0    0    0   49  767  105  115  401  162   26  356  314   2295
Added     0    0    0    0   15    6   55  211  124    0   34   36    481
Future    0    0    0   10  120   60   20   50   10   10  200   90    570
Total     0    0    0   59  902  171  190  662  296   36  590  440   3346

#25 University Avenue / NB Shattuck Avenue
Base    458    0  168    0    0    0    0  444    0    0  235    0   1305
Added    53    0   29    0    0    0    0  211    0    0   18    0    311
Future  220    0   20    0    0    0    0    0    0    0   80    0    320
Total   731    0  217    0    0    0    0  655    0    0  333    0   1936

#26 University Avenue / Oxford Street
Base    147  487    4   41 1101   77  300   38  217    6   12   23   2453
Added    10   54   -2   -3   79    8   99   -6  147    0   -1    0    385
Future   50   90    0   10   80   30   20   10   20    0   10   10    330
Total   207  631    2   48 1260  115  419   42  384    6   21   33   3168

#27 Univeristy Drive (East Gate)  / Gayley Road
Base     69  476    0    0  543   75   53    0   73    0    0    0   1289
Added   -13   69    0    0   84  -21   -2    0   -1    0    0    0    116
Future   20   70    0    0  110   10   10    0   20    0    0    0    240
Total    76  615    0    0  737   64   61    0   92    0    0    0   1645

#28 Addison Street / Oxford Street
Base     54  647    0    0 1165   61    4    0   31    0    0    0   1962
Added    20   60    0    0  207   18    2    0    2    0    0    0    309
PassBy   20  140    0    0   90   10    0    0   10    0    0    0    270
Total    94  847    0    0 1462   89    6    0   43    0    0    0   2541

#29 Center Street / SB Shattuck Avenue
Base      0    0    0   15  779   71    0   69   51   17  102    0   1104
Added     0    0    0    0   83    0    0    2    0    0    0    0     85
Future    0    0    0    0  130   20    0   50   30   30   40    0    300
Total     0    0    0   15  992   91    0  121   81   47  142    0   1489

#30 Center Street / NB Shattuck Avenue
Base     42  616   51    0    0    0   26   56    0    0   77   26    894
Added     0   98   -2    0    0    0    0    2    0    0    0    0     98
Future   30  200   60    0    0    0   10   40    0    0   40   30    410
Total    72  914  109    0    0    0   36   98    0    0  117   56   1402

#31 Center Street / Oxford Street
Base     50  663   42   11 1145   39   26   10   43   19    6    8   2062
Added     0   77   -2   -5  214    0    4   -4    0    0    0    0    284
Future   30   90   10    0   70   30   60    0   30    0    0    0    320
Total    80  830   50    6 1429   69   90    6   73   19    6    8   2666


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                         UC Berkeley LRDP EIR
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                            AM Peak Hour
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Volume   Northbound      Southbound      Eastbound       Westbound   Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#32 Stadium Rim Road / Gayley Road
Base     0  386   19  128  471    0   12    5   14   18    1  118   1172
Added    0   49   18   19   64    0    0    0    0   24    0    7    181
Future   0   60   10   20  100    0    0    0    0   10    0   20    220
Total    0  495   47  167  635    0   12    5   14   52    1  145   1573

#33 Allston Way / Oxford Street
Base    17  798    0   59 1111   34   16    0   33    0    0    0   2068
Added    0   75    0    0  214    0    0    0    0    0    0    0    289
Future  10  130    0   10   80   10    0    0   30    0    0    0    270
Total   27 1003    0   69 1405   44   16    0   63    0    0    0   2627

#34 Kittridge Street / Oxford Street / Fulton Street
Base    13  801    0    0 1122   18    6    0   23    0    0    0   1983
Added    0   68   23   69  145    0    0   27    0    2    3    7    344
Future   0  120    0    0   70   30   10    0   10    0    0    0    240
Total   13  989   23   69 1337   48   16   27   33    2    3    7   2567

#35 Stadium Rim Road / Centennial Drive
Base     0   70  160   94   22    0    0    0    0  114    0   71    531
Added    0    0    0   37    0    0    0    0    0    0    0   31     68
Future   0   20   20   20   10    0    0    0    0   20    0   10    100
Total    0   90  180  151   32    0    0    0    0  134    0  112    699

#36 Bancroft Way / Shattuck Avenue
Base    29  912    0    0  788   12    1    0   62  116   51   71   2042
Added    0  115    0    0   86    0    0    0    0   12    0    9    222
Future  10  280    0    0  190   10    0    0    0   30   10   10    540
Total   39 1307    0    0 1064   22    1    0   62  158   61   90   2804

#37 Bancroft Way / Fulton Street
Base    13  146    0    0 1071   79    0    0    0   84  173  650   2216
Added   13    0    0    0  127   20    0    0    0    2   24   91    277
Future  10   10    0    0   60   10    0    0    0   10   20  110    230
Total   36  156    0    0 1258  109    0    0    0   96  217  851   2723

#38 Bancroft Way / Ellsworth Street
Base   241   60    0    0    0   11    0    0    0    0  674   39   1025
Added   96    0    0    0    0    0    0    0    0    0  128    0    224
Future  10    0    0    0    0    0    0    0    0    0  130    0    140
Total  347   60    0    0    0   11    0    0    0    0  932   39   1389

#39 Bancroft Way / Dana Street
Base     0    0    0    0    0    0    0    0    0  145  721    0    866
Added    0    0    0    0    0    0    0    0    0    4  128    0    132
Future   0    0    0    0    0    0    0    0    0   50  130    0    180
Total    0    0    0    0    0    0    0    0    0  199  979    0   1178
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                            AM Peak Hour
-------------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound   Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#40 Bancroft Way / Telegraph Avenue
Base   427    0    0    0    0    0    0    0    0    0  460    0    887
Added   24    0    0    0    0    0    0    0    0    0  143    0    167
Future 100    0    0    0    0    0    0    0    0    0   70    0    170
Total  551    0    0    0    0    0    0    0    0    0  673    0   1224

#41 Bancroft Way / Bowditch Street
Base   191    0    0    0    0    0    0    0    0   99  494    0    784
Added    0    0    0    0    0    0    0    0    0    3  143    0    146
Future  10    0    0    0    0    0    0    0    0   20   60    0     90
Total  201    0    0    0    0    0    0    0    0  122  697    0   1020

#42 Bancroft Way / College Avenue
Base   343    0    0    0    0    0    0    0    0   34  203    0    580
Added  157    0    0    0    0    0    0    0    0    1  132    0    290
Future  10    0    0    0    0    0    0    0    0   20   60    0     90
Total  510    0    0    0    0    0    0    0    0   55  395    0    960

#43 Bancroft Way / Piedmont Avenue
Base   131  553    0    0  344  123    0    0    0    0    0    0   1151
Added  104  103    0    0   46   29    0    0    0    0    0    0    282
Future  10   60    0    0   40   60    0    0    0    0    0    0    170
Total  245  716    0    0  430  212    0    0    0    0    0    0   1603

#44 Durant Avenue / Shattuck Avenue
Base    55  943  136   67  886    8    9   70   35    0    0    0   2209
Added    0  115  105   66   31    0    0    0    0    0    0    0    317
Future  10   90   70   40  180   10  200   40    0    0    0    0    640
Total   65 1148  311  173 1097   18  209  110   35    0    0    0   3166

#45 Durant Avenue / Fulton Street
Base     0    0    0  459  656    0  123  262   27    0    0    0   1527
Added    0    0    0   96   34    0   13  158    0    0    0    0    301
Future   0    0    0   30   40    0   20   90   30    0    0    0    210
Total    0    0    0  585  730    0  156  510   57    0    0    0   2038

#46 Durant Avenue / Telegraph Avenue
Base     0  362   86    0    0    0   73  387    0    0    0    0    908
Added    0    7   24    0    0    0   17  140    0    0    0    0    188
Future   0  110   40    0    0    0    0  130    0    0    0    0    280
Total    0  479  150    0    0    0   90  657    0    0    0    0   1376

#47 Durant Avenue / College Avenue
Base     0  213   66   13   23    0   64  228   87    0    0    0    694
Added    0   29   31    0    1    0  128   39    2    0    0    0    230
Future   0   10   90    0   20    0   20   90   40    0    0    0    270
Total    0  252  187   13   44    0  212  357  129    0    0    0   1194
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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------
Volume    Northbound      Southbound      Eastbound       Westbound    Total
Type    Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#48 Durant Avenue / Piedmont Avenue
Base     0  489    0    0  345    0  158    0   86    0    0    0   1078
Added    0  147    0    0   46    0   60    0    9    0    0    0    262
Future   0   50    0    0   40    0   30    0   60    0    0    0    180
Total    0  686    0    0  431    0  248    0  155    0    0    0   1520

#49 Channing Way / Shattuck Avenue
Base    42 1070   96   19  868   19   12   59   42   62   28   39   2356
Added    0  216   44    0   31    0    0    0    0    3    0    3    297
Future  20  130   20   40   90   70   30   40   20   30   10   10    510
Total   62 1416  160   59  989   89   42   99   62   95   38   52   3163

#50 Channing Way / Fulton Street
Base     0    0    0   86  543   51    0  132   20    7   72    0    911
Added    0    0    0   32    2    0    0   44    0    0    6    0     84
Future   0    0    0    0   30    0    0   90    0   10   40    0    170
Total    0    0    0  118  575   51    0  266   20   17  118    0   1165

#51 Channing Way / Telegraph Avenue
Base    56  423   79    0    0    0   16  179    0    0   98    9    860
Added    0   30   68    0    0    0    0   76    0    0    6    0    180
Future  10   40   30    0    0    0   60   30    0    0   30   50    250
Total   66  493  177    0    0    0   76  285    0    0  134   59   1290

#52 Channing Way / College Avenue
Base    26  256   22    6   92    2   21   76   31   88  150   43    813
Added   25   59   -4    0    3    0    0    9    2    0   77    0    171
Future  20   50   20    0   60   10   10   40   30   70   40   30    380
Total   71  365   38    6  155   12   31  125   63  158  267   73   1364

#53 Haste Street / Shattuck Avenue
Base    66 1117    0    0  903   46    0    0    0  185  276   75   2668
Added    0  260    0    0   29    5    0    0    0    4    8    0    306
Future  10  130    0    0  110   20    0    0    0   30  110   20    430
Total   76 1507    0    0 1042   71    0    0    0  219  394   95   3404

#54 Haste Street / Fulton Street
Base     0    0    0    0  433  145    0    0    0   23  380    0    981
Added    0    0    0    0    1    1    0    0    0    0   12    0     14
Future   0    0    0    0   50   20    0    0    0    0  140    0    210
Total    0    0    0    0  484  166    0    0    0   23  532    0   1205

#55 Haste Street / Telegraph Avenue
Base   216  520    0    0    0    0    0    0    0    0  334   34   1104
Added    0   98    0    0    0    0    0    0    0    0   12    0    110
Future  20   50    0    0    0    0    0    0    0    0   90   30    190
Total  236  668    0    0    0    0    0    0    0    0  436   64   1404
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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------
Volume    Northbound      Southbound      Eastbound       Westbound    Total
Type    Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#56 Haste Street / College Avenue
Base   167  267    0    0  115   69    0    0    0   48  223   21    910
Added   19   80    0    0    5    0    0    0    0    0   12    0    116
Future  30   40    0    0   90   60    0    0    0   30   30   40    320
Total  216  387    0    0  210  129    0    0    0   78  265   61   1346

#57 Dwight Way / Martin Luther King Way
Base    62  690   66   88  868  163   68  419   83    0    0    0   2507
Added    3    9    0    0   15   10    0  114   19    0    0    0    170
Future  20   30   10   10  200   50   10   50   10    0    0    0    390
Total   85  729   76   98 1083  223   78  583  112    0    0    0   3067

#58 Dwight Way / Shattuck Avenue
Base     0 1094  113   95  989    0   66  420  151    0    0    0   2928
Added    0  222    0    2   31    0   38   76    0    0    0    0    369
Future   0  130   30   10  110    0   20   50   10    0    0    0    360
Total    0 1446  143  107 1130    0  124  546  161    0    0    0   3657

#59 Dwight Way / Fulton Street
Base     0    0   12  449    0    0    0  620    6    0    0    0   1087
Added    0    0    0    1    0    0    0   78    0    0    0    0     79
Future   0    0   10   30    0    0    0   70   30    0    0    0    140
Total    0    0   22  480    0    0    0  768   36    0    0    0   1306

#60 Dwight Way / Telegraph Avenue
Base     0  697   78    0    0    0   66  479  565    0    0    0   1885
Added    0   30    0    0    0    0   68   12    3    0    0    0    113
Future   0   60   10    0    0    0   10   60   40    0    0    0    180
Total    0  787   88    0    0    0  144  551  608    0    0    0   2178

#61 Dwight Way / College Avenue
Base     0  365   51   10  150    0   68  352   85    0    0    0   1081
Added    0   91    0    0    5    0    7    4    0    0    0    0    107
Future   0   50   10   20   90    0   20   20   10    0    0    0    220
Total    0  506   61   30  245    0   95  376   95    0    0    0   1408

#62 Dwight Way / Piedmont Avenue / Warring Street
Base     0  583    0    8  324    0   91  143  238   42    0   48   1477
Added    0  193    0    0   18    0    1    0    3    0    0    0    215
Future   0   70   10   10   40    0   10   10   30   10    0   10    200
Total    0  846   10   18  382    0  102  153  271   52    0   58   1892

#63 Dwight Avenue / Prospect Street
Base     0    0    0   14    0  109  246   72    0    0   53   15    509
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Future   0    0    0    0    0   20   30    0    0    0   20    0     70
Total    0    0    0   14    0  129  276   72    0    0   73   15    579
```

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                           UC Berkeley LRDP EIR
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--------------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound    Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#64 Adeline Street / Ward Avenue / Shattuck Avenue
Base     0  784    3    0  736  546  723    0    4    0    0    0   2796
Added    0  184    0    0   22    7   56    0    0    0    0    0    269
Future   0   50    0    0   40   70  100    0    0    0    0    0    260
Total    0 1018    3    0  798  623  879    0    4    0    0    0   3325

#65 Derby Street / Warring Street
Base     0    0    0  650    0   31   14   20    0    0   34  779   1528
Added    0    0    0   20    0    0    0    0    0    0    0  193    213
Future   0    0    0   90    0   10    0   10    0    0    0   90    200
Total    0    0    0  760    0   41   14   30    0    0   34 1062   1941

#66 Derby Street / Claremont Blvd.
Base     5    0   64    0    0    0    0  665   12   52  813    0   1611
Added    0    0    0    0    0    0    0   20    0    0  193    0    213
Future   0    0    0    0    0    0    0  100    0    0   90    0    190
Total    5    0   64    0    0    0    0  785   12   52 1096    0   2014

#67 Ashby Avenue / Seventh Street
Base    62  162   54   54  193  224  433  915  306  111  663   25   3202
Added    0    0    0    0    0    0    0   95    0    0   12    0    107
Future 100   70   20   60   20   30   50   60   40   50   60   30    590
Total  162  232   74  114  213  254  483 1070  346  161  735   55   3899

#68 Ashby Avenue / San Pablo Avenue
Base   173  521   53  137  741  128   84  584  134   51  613  135   3354
Added    2   20   57    0   28    2    0   80   14   30    8    0    241
Future  20  220   20   20  320   30   20  120   10   20   80   50    930
Total  195  761  130  157 1089  160  104  784  158  101  701  185   4525

#69 Ashby Avenue / Adeline Street
Base    74  567   61   11  438   96  189  564   49   83  549   14   2695
Added    4   12    0    0    2    5   44   78    1    0   19    0    165
Future  30   50   10   10   10   50   50  110   20   10  190    0    540
Total  108  629   71   21  450  151  283  752   70   93  758   14   3400

#70 Ashby Avenue / Shattuck Avenue
Base    77  590   26  124  450   35   33  557   31   40  550  182   2695
Added    0  108    0    4   11    6   58   20    0    0   13   16    236
Future  30   20   10   20   10   10   10  110   10   10  150   10    400
Total  107  718   36  148  471   51  101  687   41   50  713  208   3331

#71 Ashby Avenue / Telegraph Avenue
Base   150  985   80  148  623  103   86  549  120   89  573   83   3589
Added    3   29    0    0    3    0    0   24    0    0   26    2     87
Future  50   40   10   10   60   30   20   90   20   10   80   10    430
Total  203 1054   90  158  686  133  106  663  140   99  679   95   4106
```

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                           UC Berkeley LRDP EIR
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                              AM Peak Hour
--------------------------------------------------------------------------
Volume   Northbound      Southbound      Eastbound       Westbound    Total
Type   Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume


#72 Ashby Avenue / College Avenue
Base    79  323   26  118  232   95   33  490   92    4  611  229   2332
Added    0   24    0    4    2    0   18    6    0    0   28   49    131
Future  20   20   10   20   20   60   20   80   10   10   20   30    320
Total   99  367   36  142  254  155   71  576  102   14  659  308   2783

#73 Ashby Avenue / Claremont Avenue
Base    35  288  153  321  272   59   43  504   13   90  637  429   2844
Added    0    0    0   20    0    0    0   10    0    0   78  193    301
Future  20   10   30   40   50   10   30   60   10   30   20   50    360
Total   55  298  183  381  322   69   73  574   23  120  735  672   3505

#74 Tunnel Road / SR 13
Base     0 1293  435  487  608    0    0    0    0  205    0  307   3335
Added    0  271    0   15   14    0    0    0    0    0    0    0    300
Future   0   80    0   60   70    0    0    0    0    0    0   20    230
Total    0 1644  435  562  692    0    0    0    0  205    0  327   3865

#1004
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    0    0    1    0    2   12   25    0    0   29    7     76
Total    0    0    0    1    0    2   12   25    0    0   29    7     76

#1005
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    0    0    1    0    1   22    4    0    0   35   10     73
Total    0    0    0    1    0    1   22    4    0    0   35   10     73

#1101 I-880 South/ I-80 West CHECK
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0  190    0    0   21    0    0    0    0    0    0    0    211
Total    0  190    0    0   21    0    0    0    0    0    0    0    211

#1121 Highland Place/Heart Avenue/Cyclotron
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    0    0    0    0    0    0   64    0    0   11    0     75
Total    0    0    0    0    0    0    0   64    0    0   11    0     75

#1122 Stadium Rim Road/ Canyon Road
Base     0    0    0    0    0    0    0    0    0    0    0    0      0
Added    0    0    0    0    0    0    0    0    0    0    0    0      0
Total    0    0    0    0    0    0    0    0    0    0    0    0      0
```

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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS Veh	C	LOS Veh	C	
# 1 Marin Avenue / San Pablo Avenu	E 64.3	0.775	F 94.0	1.019	+29.711 D/V
# 2 Marin Avenue / The Alameda	B 12.8	0.467	B 15.4	0.666	+ 2.633 D/V
# 3 Gilman Street / Sixth Street	B 10.6	0.511	B 16.5	0.688	+ 5.883 D/V
# 4 Gilman Street / San Pablo Aven	C 34.0	0.736	D 46.1	0.894	+12.112 D/V
# 5 Rose Street / Shattuck Avenue	A 6.9	0.480	A 9.9	0.574	+ 3.048 D/V
# 6 Cedar Street / Martin Luther K	B 16.4	0.661	C 33.4	0.982	+17.026 D/V
# 7 Cedar Street / Shattuck Avenue	A 9.3	0.528	B 10.5	0.627	+ 1.281 D/V
# 8 Cedar Street / Oxford Street	C 28.4	0.800	E 57.9	1.029	+29.582 D/V
# 9 Cedar Street / Euclid Avenue	B 12.4	0.512	B 13.8	0.599	+ 1.349 D/V
# 10 Grizzly Peak Blvd / Centennial	A 9.8	0.386	B 11.2	0.483	+ 0.097 V/C
# 11 Hearst Avenue / Shattuck Avenu	A 6.0	0.394	A 8.2	0.522	+ 2.238 D/V
# 12 Hearst Avenue / Oxford Avenue	A 9.8	0.458	B 11.7	0.554	+ 1.917 D/V
# 13 Hearst Avenue / Spruce Street	B 3.0	0.000	B 3.1	0.000	+ 0.000 V/C
# 14 Hearst Avenue / Arch Street /	B 2.4	0.000	B 2.4	0.000	+ 0.000 V/C
# 15 Hearst Avenue / Scenic Avenue	A 0.3	0.000	B 0.4	0.000	+ 0.000 V/C
# 16 Hearst Avenue / Euclid Avenue	B 16.3	0.442	B 17.9	0.586	+ 1.557 D/V
# 17 Hearst Avenue / Le Roy Avenue	B 3.2	0.000	B 3.2	0.000	+ 0.000 V/C
# 18 Hearst Avenue / Gayley Road /	B 18.0	0.837	E 59.9	1.193	+41.865 D/V
# 19 Berkeley Way / Oxford Street	A 4.4	0.432	A 7.0	0.517	+ 2.651 D/V
# 20 University Avenue / Sixth Stre	E 70.5	0.763	F 100.0	0.998	+29.555 D/V
# 21 University Avenue / San Pablo	F 86.7	0.732	F 129.9	0.962	+43.248 D/V
# 22 University Avenue / Martin Lut	B 19.4	0.742	D 40.0	1.018	+20.623 D/V
# 23 University Avenue / Milvia Str	B 10.4	0.460	B 14.1	0.675	+ 3.688 D/V

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Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS Veh	C	LOS Veh	C	
# 24 University Avenue / SB Shattuc	B 19.1	0.431	D 36.8	0.652	+17.667 D/V
# 25 University Avenue / NB Shattuc	B 15.5	0.311	B 17.0	0.471	+ 1.419 D/V
# 26 University Avenue / Oxford Str	C 22.4	0.728	D 38.8	0.914	+16.445 D/V
# 27 Univeristy Drive (East Gate)	C 1.7	0.000	D 2.6	0.000	+ 0.000 V/C
# 28 Addison Street / Oxford Street	B 0.3	0.000	E 0.8	0.000	+ 0.000 V/C
# 29 Center Street / SB Shattuck Av	B 14.3	0.324	B 16.8	0.449	+ 2.537 D/V
# 30 Center Street / NB Shattuck Av	A 4.5	0.248	A 5.3	0.396	+ 0.821 D/V
# 31 Center Street / Oxford Street	A 7.9	0.479	B 13.3	0.674	+ 5.379 D/V
# 32 Stadium Rim Road / Gayley Road	C 20.1	0.831	F 79.2	1.220	+ 0.390 V/C
# 33 Allston Way / Oxford Street	D 4.4	0.000	E 5.2	0.000	+ 0.000 V/C
# 34 Kittridge Street / Oxford Stre	C 2.3	0.000	F 8.4	0.000	+ 0.000 V/C
# 35 Stadium Rim Road / Centennial	A 8.6	0.268	A 9.6	0.341	+ 0.073 V/C
# 36 Bancroft Way / Shattuck Avenue	A 8.4	0.425	B 10.5	0.605	+ 2.127 D/V
# 37 Bancroft Way / Fulton Street	A 6.1	0.351	A 9.7	0.421	+ 3.611 D/V
# 38 Bancroft Way / Ellsworth Stree	B 2.9	0.000	C 4.5	0.000	+ 0.000 V/C
# 39 Bancroft Way / Dana Street	A 0.0	0.000	A 0.0	0.000	+ 0.000 V/C
# 40 Bancroft Way / Telegraph Avenu	B 20.0	0.240	C 21.6	0.327	+ 1.608 D/V
# 41 Bancroft Way / Bowditch Street	B 11.2	0.431	B 14.1	0.596	+ 0.166 V/C
# 42 Bancroft Way / College Avenue	B 10.5	0.455	C 16.8	0.743	+ 0.288 V/C
# 43 Bancroft Way / Piedmont Avenue	C 20.3	0.836	F 86.7	1.224	+ 0.388 V/C
# 44 Durant Avenue / Shattuck Avenu	B 10.3	0.449	B 14.2	0.749	+ 3.847 D/V
# 45 Durant Avenue / Fulton Street	A 7.2	0.327	B 10.9	0.459	+ 3.739 D/V
# 46 Durant Avenue / Telegraph Aven	B 10.6	0.247	B 12.0	0.370	+ 1.398 D/V
# 47 Durant Avenue / College Avenue	A 9.0	0.277	B 13.6	0.440	+ 4.596 D/V
# 48 Durant Avenue / Piedmont Avenu	C 15.4	0.703	F 53.0	1.111	+ 0.408 V/C

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Intersection		Base Del/ Veh	V/ C		Future Del/ Veh	V/ C	Change in
	LOS			LOS			
# 49 Channing Way / Shattuck Avenue	A	4.6	0.469	A	7.2	0.652	+ 2.619 D/V
# 50 Channing Way / Fulton Street	B	11.8	0.498	B	14.7	0.604	+ 0.106 V/C
# 51 Channing Way / Telegraph Avenu	A	8.9	0.304	B	11.9	0.491	+ 3.048 D/V
# 52 Channing Way / College Avenue	B	13.3	0.390	C	21.5	0.613	+ 8.148 D/V
# 53 Haste Street / Shattuck Avenue	D	37.6	0.530	D	44.4	0.709	+ 6.780 D/V
# 54 Haste Street / Fulton Street	B	13.5	0.309	B	15.2	0.379	+ 1.628 D/V
# 55 Haste Street / Telegraph Avenu	B	15.3	0.350	B	16.9	0.447	+ 1.685 D/V
# 56 Haste Street / College Avenue	A	8.0	0.415	B	11.2	0.616	+ 3.167 D/V
# 57 Dwight Way / Martin Luther Kin	B	13.4	0.676	C	22.2	0.876	+ 8.862 D/V
# 58 Dwight Way / Shattuck Avenue	B	10.1	0.713	B	16.7	0.919	+ 6.546 D/V
# 59 Dwight Way / Fulton Street	B	11.2	0.419	B	13.7	0.493	+ 2.478 D/V
# 60 Dwight Way / Telegraph Avenue	B	15.9	0.667	B	18.1	0.757	+ 2.127 D/V
# 61 Dwight Way / College Avenue	B	10.4	0.439	B	12.4	0.556	+ 1.981 D/V
# 62 Dwight Way / Piedmont Avenue /	A	9.3	0.352	B	10.9	0.462	+ 1.610 D/V
# 63 Dwight Avenue / Prospect Stree	A	5.8	0.000	B	5.8	0.000	+ 0.000 V/C
# 64 Adeline Street / Ward Avenue /	B	14.3	0.708	C	20.3	0.899	+ 6.025 D/V
# 65 Derby Street / Warring Street	F	106.2	1.185	F	238.0	1.602	+ 0.417 V/C
# 66 Derby Street / Claremont Blvd.	B	12.8	0.567	C	30.1	0.737	+17.295 D/V
# 67 Ashby Avenue / Seventh Street	C	30.9	0.809	D	53.9	0.976	+22.993 D/V
# 68 Ashby Avenue / San Pablo Avenu	C	33.3	0.668	D	42.2	0.973	+ 8.858 D/V
# 69 Ashby Avenue / Adeline Street	D	39.5	0.501	D	42.1	0.623	+ 2.638 D/V
# 70 Ashby Avenue / Shattuck Avenue	B	14.6	0.454	B	16.7	0.567	+ 2.148 D/V
# 71 Ashby Avenue / Telegraph Avenu	C	23.7	0.671	C	26.9	0.907	+ 3.250 D/V
# 72 Ashby Avenue / College Avenue	D	41.3	0.988	D	35.9	1.181	- 5.350 D/V

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Intersection		Base Del/ Veh	V/ C		Future Del/ Veh	V/ C	Change in
	LOS			LOS			
# 73 Ashby Avenue / Claremont Avenu	C	21.3	0.674	C	27.2	0.840	+ 5.947 D/V
# 74 Tunnel Road / SR 13	B	13.9	0.697	B	17.2	0.832	+ 3.239 D/V

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                          UC Berkeley LRDP EIR
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                              AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #1 Marin Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):          100        Critical Vol./Cap. (X):          1.019
Loss Time (sec):       16 (Y+R =  4 sec) Average Delay (sec/veh):    94.0
Optimal Cycle:        180        Level Of Service:                   F
********************************************************************************
Approach:      North Bound       South Bound       East Bound        West Bound
Movement:    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Protected         Protected         Protected         Protected
Rights:        Include           Include           Include           Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     102  363   59   106  891   15    38  672  235   147  768   90
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  102  363   59   106  891   15    38  672  235   147  768   90
Added Vol:      1   14    1     7  144    0     0   20    8     4    2    2
Future:       120  120   64    20  131   14    14   67   30    34  267   10
Initial Fut:  223  497  124   133 1166   29    52  759  273   185 1037  102
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   223  497  124   133 1166   29    52  759  273   185 1037  102
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  223  497  124   133 1166   29    52  759  273   185 1037  102
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   223  497  124   133 1166   29    52  759  273   185 1037  102
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.92 0.92  0.95 0.95 0.95  0.95 0.91 0.91  0.95 0.94 0.94
Lanes:       1.00 1.60 0.40  1.00 1.95 0.05  1.00 1.47 0.53  1.00 1.82 0.18
Final Sat.:  1805 2802  699  1805 3508   87  1805 2549  917  1805 3244  319
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.12 0.18 0.18  0.07 0.33 0.33  0.03 0.30 0.30  0.10 0.32 0.32
Crit Moves:  ****              ****              ****              ****
Green/Cycle: 0.12 0.36 0.36  0.12 0.36 0.36  0.17 0.21 0.21  0.15 0.31 0.31
Volume/Cap:  1.03 0.49 0.49  0.61 0.92 0.92  0.17 1.42 1.42  0.68 1.03 1.03
Delay/Veh:  113.1 25.2 25.2  47.0 41.8 41.8  35.7  236 235.7  47.3 69.9 69.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 113.1 25.2 25.2  47.0 41.8 41.8  35.7  236 235.7  47.3 69.9 69.9
DesignQueue:   11   18    5     7   45    1     2   36   13     9   43    4
********************************************************************************
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                          UC Berkeley LRDP EIR
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--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #2 Marin Avenue / The Alameda
********************************************************************************
Cycle (sec):           65        Critical Vol./Cap. (X):          0.666
Loss Time (sec):        8 (Y+R =  4 sec) Average Delay (sec/veh):    15.4
Optimal Cycle:         56        Level Of Service:                   B
********************************************************************************
Approach:      North Bound       South Bound       East Bound        West Bound
Movement:    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted         Permitted         Permitted         Permitted
Rights:        Include           Include           Include           Include
Min. Green:  25   25   25    25   25   25    23   23   23    23   23   23
Lanes:        0  1  0  1  0   0  1  0  1  0   0  1  0  1  0   0  1  0  1  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     173  189    7    38  279   23    33  494  291    20  420   48
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  173  189    7    38  279   23    33  494  291    20  420   48
Added Vol:      3    1    1     0    4    0     0   18    9     5    5    0
Future:       110    0   10    10  190   20     0   70   50    10  170   10
Initial Fut:  286  190   18    48  473   43    33  582  350    35  595   58
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   286  190   18    48  473   43    33  582  350    35  595   58
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  286  190   18    48  473   43    33  582  350    35  595   58
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   286  190   18    48  473   43    33  582  350    35  595   58
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.55 0.55 0.55  0.83 0.83 0.83  0.82 0.82 0.82  0.83 0.83 0.83
Lanes:       1.00 0.91 0.09  0.17 1.68 0.15  0.07 1.21 0.72  0.10 1.73 0.17
Final Sat.:  1036  947   90   268 2638  240   107 1889 1136   160 2712  264
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.28 0.20 0.20  0.18 0.18 0.18  0.31 0.31 0.31  0.22 0.22 0.22
Crit Moves:  ****                                ****
Green/Cycle: 0.41 0.41 0.41  0.41 0.41 0.41  0.46 0.46 0.46  0.46 0.46 0.46
Volume/Cap:  0.67 0.48 0.48  0.43 0.43 0.43  0.67 0.67 0.67  0.47 0.47 0.47
Delay/Veh:   20.1 15.6 15.6  14.6 14.6 14.6  16.0 16.0 16.0  13.1 13.1 13.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  20.1 15.6 15.6  14.6 14.6 14.6  16.0 16.0 16.0  13.1 13.1 13.1
DesignQueue:    6    4    0     1   10    1     1   12    7     1   12    1
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             AM Peak Hour
----------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
****************************************************************************
Intersection #3 Gilman Street / Sixth Street
****************************************************************************
Cycle (sec):         65      Critical Vol./Cap. (X):        0.688
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     16.5
Optimal Cycle:       46      Level Of Service:                B
****************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  19   19   19   19   19   19   19   19   19   19   19   19
Lanes:      0  0  1! 0  0   0  1  0  1  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    122   24   56   11   45   28   21  416  114   47  430   20
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 122   24   56   11   45   28   21  416  114   47  430   20
Added Vol:     1    0    0    0    0    0    0    1   10    0    0    0
Future:       70    0   28    0   30    0    0   37   10   48   67    0
Initial Fut: 193   24   84   11   75   28   21  454  134   95  497   20
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  193   24   84   11   75   28   21  454  134   95  497   20
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 193   24   84   11   75   28   21  454  134   95  497   20
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  193   24   84   11   75   28   21  454  134   95  497   20
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.70 0.70 0.70 0.84 0.84 0.84 0.95 0.95 0.95 0.85 0.85 0.85
Lanes:      0.64 0.08 0.28 0.19 1.32 0.49 0.03 0.75 0.22 0.16 0.81 0.03
Final Sat.:  858  107  373  310 2111  788   62 1341  396  251 1314   53
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.22 0.22 0.22 0.04 0.04 0.04 0.34 0.34 0.34 0.38 0.38 0.38
Crit Moves:      ****                             ****
Green/Cycle: 0.33 0.33 0.33 0.33 0.33 0.33 0.55 0.55 0.55 0.55 0.55 0.55
Volume/Cap: 0.69 0.69 0.69 0.11 0.11 0.11 0.62 0.62 0.62 0.69 0.69 0.69
Delay/Veh:  27.5 27.5 27.5 15.5 15.5 15.5 12.8 12.8 12.8 14.9 14.9 14.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 27.5 27.5 27.5 15.5 15.5 15.5 12.8 12.8 12.8 14.9 14.9 14.9
DesignQueue:   5    1    2    0    2    1    0    8    2    2    9    0
****************************************************************************
```

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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             AM Peak Hour
----------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
****************************************************************************
Intersection #4 Gilman Street / San Pablo Avenue
****************************************************************************
Cycle (sec):        100      Critical Vol./Cap. (X):        0.894
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):     46.1
Optimal Cycle:      107      Level Of Service:                D
****************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   4   35   35    4   35   35   31   31   31   31   31   31
Lanes:      1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    113  401   25   74 1055  125   75  189   96   62  318   42
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 113  401   25   74 1055  125   75  189   96   62  318   42
Added Vol:     0   15    0    0  155    0    0    0    1    0    0    0
Future:       30  305   60   60   70   20   35   20   10   10   40   32
Initial Fut: 143  721   85  134 1280  145  110  209  107   72  358   74
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  143  721   85  134 1280  145  110  209  107   72  358   74
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 143  721   85  134 1280  145  110  209  107   72  358   74
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  143  721   85  134 1280  145  110  209  107   72  358   74
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.93 0.93 0.95 0.94 0.94 0.56 0.56 0.56 0.86 0.86 0.86
Lanes:      1.00 1.79 0.21 1.00 1.80 0.20 0.52 0.98 0.50 0.14 0.71 0.15
Final Sat.: 1805 3178  375 1805 3194  362  549 1043  534  235 1167  241
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.08 0.23 0.23 0.07 0.40 0.40 0.20 0.20 0.20 0.31 0.31 0.31
Crit Moves: ****                 ****                             ****
Green/Cycle: 0.00 0.37 0.00 0.00 0.37 0.00 0.37 0.37 0.37 0.37 0.37 0.37
Volume/Cap: xxxx 0.61 xxxx xxxx 1.08 xxxx 0.55 0.55 0.55 0.84 0.84 0.84
Delay/Veh:   0.0 27.8  0.0  0.0 82.1  0.0 28.0 28.0 28.0 42.5 42.5 42.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 27.8  0.0  0.0 82.1  0.0 28.0 28.0 28.0 42.5 42.5 42.5
DesignQueue:   8   27    5    8   50    9    4    8    4    3   14    3
****************************************************************************
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                            UC Berkeley LRDP EIR
                        2020 With Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #5 Rose Street / Shattuck Avenue
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):        0.574
Loss Time (sec):       8 (Y+R =  5 sec) Average Delay (sec/veh):     9.9
Optimal Cycle:        52          Level Of Service:                A
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   17   17   17    17   17   17    27   27   27    27   27   27
Lanes:       1  0  1  1  0   1  0  1  1  0   0  1  0  0  1   0  0  1! 0  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     55  191   11   174  961   28    28  174   40    32  185   40
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  55  191   11   174  961   28    28  174   40    32  185   40
Added Vol:     0    1    0     4   11    0     0    0    0     0    0    0
Future:       40  140   20    10  170   10    10   10   20    20   10   10
Initial Fut:  95  332   31   188 1142   38    38  184   60    52  195   50
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   95  332   31   188 1142   38    38  184   60    52  195   50
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  95  332   31   188 1142   38    38  184   60    52  195   50
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   95  332   31   188 1142   38    38  184   60    52  195   50
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.17 0.94 0.94  0.53 0.95 0.95  0.91 0.91 0.85  0.89 0.89 0.89
Lanes:      1.00 1.83 0.17  1.00 1.94 0.06  0.17 0.83 1.00  0.17 0.66 0.17
Final Sat.:  331 3259  304  1015 3476  116   297 1438 1615   297 1114  286
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.29 0.10 0.10  0.19 0.33 0.33  0.13 0.13 0.04  0.18 0.18 0.18
Crit Moves:                 ****                            ****
Green/Cycle: 0.46 0.46 0.46  0.46 0.46 0.46  0.42 0.42 0.42  0.42 0.42 0.42
Volume/Cap: 0.62 0.22 0.22  0.40 0.71 0.71  0.31 0.31 0.09  0.42 0.42 0.42
Delay/Veh:  23.3  4.8  4.8   7.5  8.6  8.6  13.8 13.8 11.8  15.3 15.3 15.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 23.3  4.8  4.8   7.5  8.6  8.6  13.8 13.8 11.8  15.3 15.3 15.3
DesignQueue:   2    7    1     4   24    1     1    4    1     1    4    1
********************************************************************************
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                            UC Berkeley LRDP EIR
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                              AM Peak Hour
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                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #6 Cedar Street / Martin Luther King Way
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):        0.982
Loss Time (sec):       8 (Y+R =  5 sec) Average Delay (sec/veh):    33.4
Optimal Cycle:       124          Level Of Service:                C
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   20   20   20    20   20   20    20   20   20    20   20   20
Lanes:       0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     33  292   44    35  617   26    14  276   62    58  248   30
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  33  292   44    35  617   26    14  276   62    58  248   30
Added Vol:     0    3    1     0   15    0     0   13    1     4    1    0
Future:       10   40   20    20  220   10    10   50   30    30   90   20
Initial Fut:  43  335   65    55  852   36    24  339   93    92  339   50
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   43  335   65    55  852   36    24  339   93    92  339   50
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  43  335   65    55  852   36    24  339   93    92  339   50
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   43  335   65    55  852   36    24  339   93    92  339   50
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.85 0.85 0.85  0.95 0.95 0.95  0.94 0.94 0.94  0.75 0.75 0.75
Lanes:      0.10 0.75 0.15  0.06 0.90 0.04  0.05 0.75 0.20  0.19 0.71 0.10
Final Sat.:  158 1228  238   105 1631   69    94 1328  364   271  999  147
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.27 0.27 0.27  0.52 0.52 0.52  0.26 0.26 0.26  0.34 0.34 0.34
Crit Moves:                 ****                            ****
Green/Cycle: 0.53 0.53 0.53  0.53 0.53 0.53  0.35 0.35 0.35  0.35 0.35 0.35
Volume/Cap: 0.51 0.51 0.51  0.98 0.98 0.98  0.74 0.74 0.74  0.98 0.98 0.98
Delay/Veh:   9.2  9.2  9.2  35.8 35.8 35.8  26.5 26.5 26.5  57.6 57.6 57.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  9.2  9.2  9.2  35.8 35.8 35.8  26.5 26.5 26.5  57.6 57.6 57.6
DesignQueue:   1    6    1     1   17    1     1    9    2     2    9    1
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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
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                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #7 Cedar Street / Shattuck Avenue
*******************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.627
Loss Time (sec):      8 (Y+R =  5 sec) Average Delay (sec/veh):    10.5
Optimal Cycle:       50          Level Of Service:                    B
*******************************************************************************
Approach:        North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            -----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   20   20   20    20   20   20    22   22   22    22   22   22
Lanes:         1  0  1  1  0   1  0  1  1  0   1  0  0  1  0   1  0  0  1  0
            -----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      48  256   41   127  933   52    44  257   86    94  268   56
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   48  256   41   127  933   52    44  257   86    94  268   56
Added Vol:      0    1    0     2    9    0     0   14    0     4    6    0
Future:        20  140   20    10  150   10    10   30   10    40   70   20
Initial Fut:   68  397   61   139 1092   62    54  301   96   138  344   76
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    68  397   61   139 1092   62    54  301   96   138  344   76
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   68  397   61   139 1092   62    54  301   96   138  344   76
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    68  397   61   139 1092   62    54  301   96   138  344   76
            -----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.22 0.93 0.93  0.48 0.94 0.94  0.33 0.96 0.96  0.36 0.97 0.97
Lanes:       1.00 1.73 0.27  1.00 1.89 0.11  1.00 0.76 0.24  1.00 0.82 0.18
Final Sat.:   424 3067  471   920 3389  192   621 1389  443   675 1514  335
            -----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.13 0.13  0.15 0.32 0.32  0.09 0.22 0.22  0.20 0.23 0.23
Crit Moves:                     ****            ****                    ****
Green/Cycle: 0.51 0.51 0.51  0.51 0.51 0.51  0.36 0.36 0.36  0.36 0.36 0.36
Volume/Cap:  0.31 0.25 0.25  0.29 0.63 0.63  0.24 0.60 0.60  0.56 0.63 0.63
Delay/Veh:    6.4  2.9  2.9   4.2  4.9  4.9  17.0 20.8 20.8  25.7 21.5 21.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   6.4  2.9  2.9   4.2  4.9  4.9  17.0 20.8 20.8  25.7 21.5 21.5
DesignQueue:    1    7    1     2   21    1     1    7    2     3    8    2
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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #8 Cedar Street / Oxford Street
*******************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          1.029
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    57.9
Optimal Cycle:      177          Level Of Service:                    E
*******************************************************************************
Approach:        North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            -----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   16   16   16    16   16   16    16   16   16    16   16   16
Lanes:         0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
            -----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      45  186   56    34  531   19    18  314   75   144  343   19
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   45  186   56    34  531   19    18  314   75   144  343   19
Added Vol:      2   13    0     0  115    9     1    0   15     0    0    0
Future:        30   20   10    10   10    0    10   40   30    10  120    0
Initial Fut:   77  219   66    44  656   28    29  354  120   154  463   19
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    77  219   66    44  656   28    29  354  120   154  463   19
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   77  219   66    44  656   28    29  354  120   154  463   19
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    77  219   66    44  656   28    29  354  120   154  463   19
            -----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.76 0.76 0.76  0.96 0.96 0.96  0.92 0.92 0.92  0.67 0.67 0.67
Lanes:       0.21 0.61 0.18  0.06 0.90 0.04  0.06 0.70 0.24  0.24 0.73 0.03
Final Sat.:   306  871  262   110 1639   70   101 1236  419   307  922   38
            -----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.25 0.25 0.25  0.40 0.40 0.40  0.29 0.29 0.29  0.50 0.50 0.50
Crit Moves:                     ****                             ****
Green/Cycle: 0.50 0.49 0.49  0.50 0.50 0.50  0.40 0.39 0.39  0.40 0.40 0.40
Volume/Cap:  0.50 0.51 0.51  0.80 0.80 0.80  0.73 0.74 0.74  1.27 1.27 1.27
Delay/Veh:   10.8 11.5 11.5  17.7 17.7 17.7  23.2 24.5 24.5 157.0  157 157.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  10.8 11.5 11.5  17.7 17.7 17.7  23.2 24.5 24.5 157.0  157 157.0
DesignQueue:    1    4    1     1   13    1     1    8    3     4   11    0
*******************************************************************************
```

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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:36:09        Page 17-1
-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #9 Cedar Street / Euclid Avenue
*******************************************************************************
Cycle (sec):          60        Critical Vol./Cap. (X):          0.599
Loss Time (sec):       8 (Y+R =  5 sec) Average Delay (sec/veh):  13.8
Optimal Cycle:        42        Level Of Service:                   B
*******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   17   17   17     17   17   17     17   17   17     17   17   17
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     30   85   29     23  295  141     50  143  117     28  209    8
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  30   85   29     23  295  141     50  143  117     28  209    8
Added Vol:     0    0    0      0   11    3      0   -2    0      0    0    0
Future:       20    0    0      0   10   40     10   30   20     20   80    0
Initial Fut:  50   85   29     23  316  184     60  171  137     48  289    8
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:   50   85   29     23  316  184     60  171  137     48  289    8
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  50   85   29     23  316  184     60  171  137     48  289    8
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   50   85   29     23  316  184     60  171  137     48  289    8
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.78 0.78 0.78   0.94 0.94 0.94   0.86 0.86 0.86   0.92 0.92 0.92
Lanes:      0.30 0.52 0.18   0.04 0.61 0.35   0.16 0.47 0.37   0.14 0.84 0.02
Final Sat.:  452  769  262     78 1076  627    266  759  608    242 1457   40
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.11 0.11 0.11   0.29 0.29 0.29   0.23 0.23 0.23   0.20 0.20 0.20
Crit Moves:                  ****             ****
Green/Cycle:0.49 0.49 0.49   0.49 0.49 0.49   0.38 0.38 0.38   0.38 0.38 0.38
Volume/Cap: 0.23 0.23 0.23   0.60 0.60 0.60   0.60 0.60 0.60   0.53 0.53 0.53
Delay/Veh:   8.9  8.9  8.9   12.2 12.2 12.2   16.7 16.7 16.7   15.4 15.4 15.4
User DelAdj:1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  8.9  8.9  8.9   12.2 12.2 12.2   16.7 16.7 16.7   15.4 15.4 15.4
DesignQueue:   1    1    1      0    6    3      1    4    3      1    6    0
*******************************************************************************
```

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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:36:09        Page 18-1
-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Future Volume Alternative)
*******************************************************************************
Intersection #10 Grizzly Peak Blvd / Centennial Drive
*******************************************************************************
Cycle (sec):         100        Critical Vol./Cap. (X):          0.483
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):  11.2
Optimal Cycle:         0        Level Of Service:                   B
*******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0      0    0    0      0    0    0      0    0    0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 7:00-9:00 AM
Base Vol:     31   13   13     25   52    4      6  165  143    169   90   16
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  31   13   13     25   52    4      6  165  143    169   90   16
Added Vol:     0    0    4      0    0    0      0    0    5     39    0    0
Future:       30    0   10      0    0    0      0   20   10     20   10    0
Initial Fut:  61   13   27     25   52    4      6  185  158    228  100   16
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:   61   13   27     25   52    4      6  185  158    228  100   16
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  61   13   27     25   52    4      6  185  158    228  100   16
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   61   13   27     25   52    4      6  185  158    228  100   16
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:      0.60 0.13 0.27   0.31 0.64 0.05   0.02 0.53 0.45   0.66 0.29 0.05
Final Sat.:  351   75  155    175  364   28     13  405  346    472  207   33
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.17 0.17 0.17   0.14 0.14 0.14   0.46 0.46 0.46   0.48 0.48 0.48
Crit Moves: ****             ****             ****             ****
Delay/Veh:   9.6  9.6  9.6    9.5  9.5  9.5   11.1 11.1 11.1   12.2 12.2 12.2
Delay Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  9.6  9.6  9.6    9.5  9.5  9.5   11.1 11.1 11.1   12.2 12.2 12.2
LOS by Move:  A    A    A      A    A    A      B    B    B      B    B    B
ApproachDel:      9.6              9.5             11.1             12.2
Delay Adj:       1.00             1.00             1.00             1.00
ApprAdjDel:       9.6              9.5             11.1             12.2
LOS by Appr:      A                A                B                B
*******************************************************************************
```

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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
```

```
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #11 Hearst Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):         65           Critical Vol./Cap. (X):        0.522
Loss Time (sec):      8 (Y+R =  6 sec) Average Delay (sec/veh):      8.2
Optimal Cycle:       52           Level Of Service:                A
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  22   22   22    22   22   22    22   22   22    22   22   22
Lanes:       1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     19  291   43   199  810   57    31  278   24    11  225   51
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  19  291   43   199  810   57    31  278   24    11  225   51
Added Vol:     3    1  -13     3   11    0     0   37   25     6    4    0
Future:       10   90   20    50  160   20    30   30   30    10   20   70
Initial Fut:  32  382   50   252  981   77    61  345   79    27  249  121
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   32  382   50   252  981   77    61  345   79    27  249  121
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  32  382   50   252  981   77    61  345   79    27  249  121
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   32  382   50   252  981   77    61  345   79    27  249  121
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.27 0.93 0.93  0.50 0.94 0.94  0.79 0.79 0.79  0.82 0.82 0.82
Lanes:      1.00 1.77 0.23  1.00 1.85 0.15  0.25 1.42 0.33  0.14 1.25 0.61
Final Sat.:  509 3138  411   946 3310  260   378 2135  489   211 1948  947
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.06 0.12 0.12  0.27 0.30 0.30  0.16 0.16 0.16  0.13 0.13 0.13
Crit Moves:                      ****             ****
Green/Cycle: 0.54 0.54 0.54  0.54 0.54 0.54  0.34 0.34 0.34  0.34 0.34 0.34
Volume/Cap: 0.12 0.23 0.23  0.49 0.55 0.55  0.48 0.48 0.48  0.38 0.38 0.38
Delay/Veh:   2.5  2.0  2.0   5.5  3.3  3.3  18.6 18.6 18.6  17.3 17.3 17.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  2.5  2.0  2.0   5.5  3.3  3.3  18.6 18.6 18.6  17.3 17.3 17.3
DesignQueue:   1    7    1     4   18    1     2    9    2     1    6    3
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
```

```
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #12 Hearst Avenue / Oxford Avenue
********************************************************************************
Cycle (sec):         65           Critical Vol./Cap. (X):        0.554
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     11.7
Optimal Cycle:       49           Level Of Service:                B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  19   19   19    19   19   19    22   22   22    22   22   22
Lanes:       1  0  1  1  0   0  1  0  1  0   0  1  0  1  0   1  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     46  328  374    48  841   38    10  399  114   207  281   27
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  46  328  374    48  841   38    10  399  114   207  281   27
Added Vol:     0   59   59     3   99    3    19   10   -1     8    8   19
Future:       20   50   40    10   30   20     0   80   30    30   70   10
Initial Fut:  66  437  473    61  970   61    29  489  143   245  359   56
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   66  437  473    61  970   61    29  489  143   245  359   56
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  66  437  473    61  970   61    29  489  143   245  359   56
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   66  437  473    61  970   61    29  489  143   245  359   56
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
Lanes:      1.00 1.00 0.11  1.78 0.11  0.09 1.48 0.43  1.11 1.64 0.25
Final Sat.: 1900 1805 1805   202 3207  202   158 2671  781  2010 2945  459
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.03 0.24 0.26  0.30 0.30 0.30  0.18 0.18 0.18  0.12 0.12 0.12
Crit Moves:                      ****             ****
Green/Cycle: 0.54 0.54 0.54  0.54 0.54 0.54  0.34 0.34 0.34  0.34 0.34 0.34
Volume/Cap: 0.06 0.45 0.49  0.56 0.56 0.56  0.54 0.54 0.54  0.36 0.36 0.36
Delay/Veh:   5.2  7.1  7.5   8.2  8.2  8.2  19.1 19.1 19.1  16.7 16.7 16.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  5.2  7.1  7.5   8.2  8.2  8.2  19.1 19.1 19.1  16.7 16.7 16.7
DesignQueue:   1    8    8     1   17    1     1   12    4     6    9    1
********************************************************************************
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--------------------------------------------------------------------------   --------------------------------------------------------------------------
                        UC Berkeley LRDP EIR                                                         UC Berkeley LRDP EIR
                   2020 With Project Conditions                                                 2020 With Project Conditions
                          AM Peak Hour                                                                AM Peak Hour
--------------------------------------------------------------------------   --------------------------------------------------------------------------
                 Level Of Service Computation Report                                          Level Of Service Computation Report
            2000 HCM Unsignalized Method (Future Volume Alternative)                     2000 HCM Unsignalized Method (Future Volume Alternative)
**************************************************************************     **************************************************************************
Intersection #13 Hearst Avenue / Spruce Street                               Intersection #14 Hearst Avenue / Arch Street / Le Conte Avenue
**************************************************************************     **************************************************************************
Average Delay (sec/veh):    3.1          Worst Case Level Of Service:   B     Average Delay (sec/veh):    2.4          Worst Case Level Of Service:   B
**************************************************************************     **************************************************************************
Approach:    North Bound    South Bound    East Bound     West Bound         Approach:    North Bound    South Bound    East Bound     West Bound
Movement:   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R     Movement:   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
           ------------|--------------||--------------||--------------|                  ------------|--------------||--------------||--------------|
Control:        Stop Sign      Stop Sign     Uncontrolled   Uncontrolled     Control:        Stop Sign      Stop Sign     Uncontrolled   Uncontrolled
Rights:          Include        Include        Include        Include        Rights:          Include        Include        Include        Include
Lanes:      0  0  0  0  0   0  0  1! 0  0   0  1  1  0  0   0  0  1  1  0     Lanes:      0  0  0  0  0   0  0  1! 0  0   1  0  2  0  0   0  0  1  1  0
           ------------|--------------||--------------||--------------|                  ------------|--------------||--------------||--------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM               Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    0    0    0    9    0   63   11  843    0    0  430    7         Base Vol:    0    0    0    2    0  130  276  566    0    0  307    4
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00      Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0    0    0    9    0   63   11  843    0    0  430    7         Initial Bse: 0    0    0    2    0  130  276  566    0    0  307    4
Added Vol:   0    0    0    4    0    0    0   72    0    0   35    1         Added Vol:   0    0    0    0    0    0   24   52    0    0   35    0
Future:      0    0    0    0    0   20    0  130    0    0  110    0         Future:      0    0    0    0    0   40   30  100    0    0   90    0
Initial Fut: 0    0    0   13    0   83   11 1045    0    0  575    8         Initial Fut: 0    0    0    2    0  170  330  718    0    0  432    4
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00      User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00      PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  0    0    0   13    0   83   11 1045    0    0  575    8         PHF Volume:  0    0    0    2    0  170  330  718    0    0  432    4
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0         Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:  0    0    0   13    0   83   11 1045    0    0  575    8         Final Vol.:  0    0    0    2    0  170  330  718    0    0  432    4
Critical Gap Module:                                                         Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.8 xxxx  6.9  4.1 xxxx xxxxx xxxxx xxxx xxxxx  Critical Gp:xxxxx xxxx xxxxx  6.8 xxxx  6.9  4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx  FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx
           ------------|--------------||--------------||--------------|                  ------------|--------------||--------------||--------------|
Capacity Module:                                                            Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1124 xxxx  292  583 xxxx xxxxx  xxxx xxxx xxxxx  Cnflict Vol: xxxx xxxx xxxxx 1453 xxxx  218  436 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  202 xxxx  711 1001 xxxx xxxxx  xxxx xxxx xxxxx  Potent Cap.: xxxx xxxx xxxxx  123 xxxx  792 1134 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  201 xxxx  711 1001 xxxx xxxxx  xxxx xxxx xxxxx  Move Cap.:   xxxx xxxx xxxxx   96 xxxx  792 1134 xxxx xxxxx  xxxx xxxx xxxxx
           ------------|--------------||--------------||--------------|                  ------------|--------------||--------------||--------------|
Level Of Service Module:                                                     Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  8.6 xxxx xxxxx xxxxx xxxx xxxxx Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  9.5 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *    *    *    *    A    *    *    *    *    *         LOS by Move:  *    *    *    *    *    *    A    *    *    *    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  529 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx Shared Cap.: xxxx xxxx xxxxx  xxxx  731 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 13.3 xxxxx  8.6 xxxx xxxxx xxxxx xxxx xxxxx Shrd StpDel:xxxxx xxxx xxxxx xxxxx 11.4 xxxxx  xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *    *    B    *    A    *    *    *    *    *         Shared LOS:   *    *    *    *    B    *    *    *    *    *    *    *
ApproachDel:   xxxxxx         13.3         xxxxxx         xxxxxx             ApproachDel:   xxxxxx         11.4         xxxxxx         xxxxxx
ApproachLOS:     *              B              *              *             ApproachLOS:     *              B              *              *
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
         2000 HCM Unsignalized Method (Future Volume Alternative)
*******************************************************************************
Intersection #15 Hearst Avenue / Scenic Avenue
*******************************************************************************
Average Delay (sec/veh):     0.4        Worst Case Level Of Service:      B
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  0  0  1    0  0  2  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    0    0    0    0    0   37    0  531    0    0  290   55
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0    0    0    0    0   37    0  531    0    0  290   55
Added Vol:   0    0    0    0    0    1    0    0    0    0   34    2
Future:      0    0    0    0    0   20    0  100    0    0   90   10
Initial Fut: 0    0    0    0    0   58    0  631    0    0  414   67
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  0    0    0    0    0   58    0  631    0    0  414   67

Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:  0    0    0    0    0   58    0  631    0    0  414   67
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx   240 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx   767 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx   767 xxxx xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx  10.1 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    B     *    *    *     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *     *    *    *     *    *    *     *    *    *
ApproachDel:    xxxxxx           10.1          xxxxxx           xxxxxx
ApproachLOS:       *               B               *               *
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #16 Hearst Avenue / Euclid Avenue
*******************************************************************************
Cycle (sec):       65          Critical Vol./Cap. (X):      0.586
Loss Time (sec):   12 (Y+R =  3 sec) Average Delay (sec/veh):     17.9
Optimal Cycle:     53          Level Of Service:              B
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  0    0    0   25   25   25    5   16   16   16   16   16
Lanes:      0  0  1! 0  0    0  0  1! 0  0    1  0  0  1  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00-9:00 AM
Base Vol:    2    0    2   47    1  151   75  448    1    1  276   10
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2    0    2   47    1  151   75  448    1    1  276   10
Added Vol:   0    0    0    3    0    3    0   52    0    0   41    0
Future:      0    0    0   10    0   50   10   90    0    0   70    0
Initial Fut: 2    0    2   60    1  204   85  590    1    1  387   10
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  2    0    2   60    1  204   85  590    1    1  387   10
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 2    0    2   60    1  204   85  590    1    1  387   10
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  2    0    2   60    1  204   85  590    1    1  387   10
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.87 1.00 0.87 0.84 0.84 0.84 0.63 1.00 1.00 1.00 1.00 1.00
Lanes:      0.50 0.01 0.50 0.22 0.01 0.77 1.00 0.99 0.01 0.01 0.97 0.02
Final Sat.:  826    0  826  360    6 1224 1201 1897    3    5 1842   48
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.17 0.17 0.17 0.07 0.31 0.31 0.21 0.21 0.21
Crit Moves:                   ****                ****
Green/Cycle: 0.38 0.00 0.38 0.38 0.38 0.38 0.43 0.43 0.43 0.43 0.43 0.43
Volume/Cap: 0.01 0.00 0.01 0.43 0.43 0.43 0.16 0.72 0.72 0.49 0.49 0.49
Delay/Veh:  12.4  0.0 12.4 17.0 17.0 17.0 12.0 20.8 20.8 15.4 15.4 15.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.4  0.0 12.4 17.0 17.0 17.0 12.0 20.8 20.8 15.4 15.4 15.4
DesignQueue:  0    0    0    1    0    5    2   13    0    0    8    0
*******************************************************************************
```

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------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
------------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #17 Hearst Avenue / Le Roy Avenue
********************************************************************************
Average Delay (sec/veh):     3.2        Worst Case Level Of Service:       B
********************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign     Uncontrolled     Uncontrolled
Rights:           Include          Include         Include          Include
Lanes:       0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    0    0    0    19    0    60    59   436    0     0   230    3
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 0    0    0    19    0    60    59   436    0     0   230    3
Added Vol:   0    0    0     0    0     0     0    55    0     0    42    0
Future:      0    0    0     0    0    10    10    90    0     0    70    0
Initial Fut: 0    0    0    19    0    70    69   581    0     0   342    3
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  0    0    0    19    0    70    69   581    0     0   342    3
Reduct Vol:  0    0    0     0    0     0     0     0    0     0     0    0
Final Vol.:  0    0    0    19    0    70    69   581    0     0   342    3
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  816 xxxx   344   345 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  262 xxxx   704  1225 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  250 xxxx   704  1225 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.1 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *      *    *     *      A    *    *      *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  507 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx 13.6 xxxxx   8.1 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *      *    B     *      A    *    *      *    *    *
ApproachDel:    xxxxxx          13.6          xxxxxx          xxxxxx
ApproachLOS:      *              B              *              *
```

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------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
------------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #18 Hearst Avenue / Gayley Road / LaLoma Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        1.193
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):      59.9
Optimal Cycle:     180              Level Of Service:              E
********************************************************************************
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   18   18   18    18   18   18    17   17   17    17   17   17
Lanes:       0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00-9:00 AM
Base Vol:   274  212   95    12  274   21    28  161  304    21   33    5
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 274  212   95    12  274   21    28  161  304    21   33    5
Added Vol:   32    3   32     0   38    0     0   32   23     2    9    0
Future:      70   10   20     0  120    0     0   80    0    20   20    0
Initial Fut: 376  225  147    12  432   21    28  273  327    43   62    5
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  376  225  147    12  432   21    28  273  327    43   62    5
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 376  225  147    12  432   21    28  273  327    43   62    5
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  376  225  147    12  432   21    28  273  327    43   62    5
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.58 0.58 0.58  0.98 0.98 0.98  0.92 0.92 0.92  0.76 0.76 0.85
Lanes:      0.50 0.30 0.20  0.03 0.93 0.04  0.04 0.43 0.53  0.41 0.59 1.00
Final Sat.:  549  329  215    48 1721   84    78  756  905   590  850 1615
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.68 0.68 0.68  0.25 0.25 0.25  0.36 0.36 0.36  0.07 0.07 0.00
Crit Moves:      ****                            ****
Green/Cycle: 0.55 0.55 0.55  0.55 0.55 0.55  0.40 0.40 0.00  0.40 0.40 0.40
Volume/Cap: 1.24 1.24 1.24  0.45 0.45 0.45  0.90 0.90 xxxx  0.18 0.18 0.01
Delay/Veh: 134.6 135 134.6  10.1 10.1 10.1  33.6 33.6  0.0  12.0 12.0 10.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 134.6 135 134.6  10.1 10.1 10.1  33.6 33.6  0.0  12.0 12.0 10.5
DesignQueue:  7    4    3     0    7    0     1    6   13     1    1    0
********************************************************************************
```

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--------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #19 Berkeley Way / Oxford Street
********************************************************************************
Cycle (sec):          70          Critical Vol./Cap. (X):         0.517
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):    7.0
Optimal Cycle:        46          Level Of Service:                  A
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    20   20   20    20   20   20
Lanes:        1    0    1  1  0    1    0    1  1  0    0    0    1! 0  0    1    0    0    1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     39  717   40    30 1132   11    20   18   72    10    2   12
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  39  717   40    30 1132   11    20   18   72    10    2   12
Added Vol:    38  115    0     0   80   26     3    0    4     0    0    0
PasserByVol:  10  110   10     0  100    0     0    0   20     0    0    0
Initial Fut:  87  942   50    30 1312   37    23   18   96    10    2   12
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   87  942   50    30 1312   37    23   18   96    10    2   12
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  87  942   50    30 1312   37    23   18   96    10    2   12
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   87  942   50    30 1312   37    23   18   96    10    2   12
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.17 0.94 0.94  0.27 0.95 0.95  0.87 0.87 0.87  0.85 0.87 0.87
Lanes:       1.00 1.90 0.10  1.00 1.95 0.05  0.17 0.13 0.70  1.00 0.14 0.86
Final Sat.:  314 3404  181   515 3497   99   277  217 1157  1621  236 1418
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.28 0.28 0.28  0.06 0.38 0.38  0.08 0.08 0.08  0.01 0.01 0.01
Crit Moves:                      ****             ****
Green/Cycle: 0.60 0.60 0.60  0.60 0.60 0.60  0.29 0.29 0.29  0.29 0.29 0.29
Volume/Cap:  0.46 0.46 0.46  0.10 0.63 0.63  0.29 0.29 0.29  0.02 0.03 0.03
Delay/Veh:   12.4  5.2  5.2   4.0  6.5  6.5  21.0 21.0 21.0  18.1 18.1 18.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  12.4  5.2  5.2   4.0  6.5  6.5  21.0 21.0 21.0  18.1 18.1 18.1
DesignQueue:   1   16    1     0   23    1     1    1    3     0    0    0
********************************************************************************
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--------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #20 University Avenue / Sixth Street
********************************************************************************
Cycle (sec):         114          Critical Vol./Cap. (X):         0.998
Loss Time (sec):      16 (Y+R =  5 sec) Average Delay (sec/veh):  100.0
Optimal Cycle:       180          Level Of Service:                  F
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Prot+Permit       Permitted        Protected        Protected
Rights:           Include          Include          Include          Include
Min. Green:   6   23   23     0   23   23     6   15   15     6   15   15
Lanes:        1    0    1  0  1    1    0    1  0  1    1    0    1    1  0    1    0    1    1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    211  111   19    73  290  325    89  932  333    40  931   21
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 211  111   19    73  290  325    89  932  333    40  931   21
Added Vol:     0   17   12     0    4    1     6  291    0     1   31    0
Future:      150   60   10    10   10   80    10   60   40    10  150   10
Initial Fut: 361  188   41    83  304  406   105 1283  373    51 1112   31
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  361  188   41    83  304  406   105 1283  373    51 1112   31
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 361  188   41    83  304  406   105 1283  373    51 1112   31
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  361  188   41    83  304  406   105 1283  373    51 1112   31
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.98 1.00 0.85  1.00 1.00 0.85  0.95 0.92 0.92  0.95 0.95 0.95
Lanes:       1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.55 0.45  1.00 1.95 0.05
Final Sat.: 1858 1900 1615  1900 1900 1615  1805 2702  785  1805 3498   98
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.10 0.03  0.04 0.16 0.25  0.06 0.47 0.47  0.03 0.32 0.32
Crit Moves:  ****                  ****             ****             ****
Green/Cycle: 0.44 0.44 0.44  0.25 0.25 0.25  0.06 0.37 0.37  0.05 0.35 0.35
Volume/Cap:  0.44 0.22 0.06  0.18 0.65 1.02  0.90 1.30 1.30  0.54 0.90 0.90
Delay/Veh:   47.8 20.4 18.5  34.8 45.6 94.7 111.9  175 175.1 72.7 45.0 45.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  47.8 20.4 18.5  34.8 45.6 94.7 111.9  175 175.1 72.7 45.0 45.0
DesignQueue:  19    7    1     4   15   21     6   58   17     3   49    1
********************************************************************************
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--------------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                           AM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #21 University Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):         114        Critical Vol./Cap. (X):          0.962
Loss Time (sec):      16 (Y+R =  5 sec) Average Delay (sec/veh):  129.9
Optimal Cycle:       164        Level Of Service:                    F
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:   5   21   21    5   21   21    5   22   22    5   22   22
Lanes:        1  0  1  1  0  1  0  1  1  0  1  0  1  1  0  1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     100  457   75   190  837   83    56  957   49    63  644   93
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  100  457   75   190  837   83    56  957   49    63  644   93
Added Vol:      0    3    7    74   50    0     0  303    1     1   31    9
Future:        50  200   40    60   30   20    10   60   10    10  120  100
Initial Fut:  150  660  122   324  917  103    66 1320   60    74  795  202
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   150  660  122   324  917  103    66 1320   60    74  795  202
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  150  660  122   324  917  103    66 1320   60    74  795  202
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   150  660  122   324  917  103    66 1320   60    74  795  202
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.93 0.93  0.95 0.94 0.94  0.95 0.94 0.94  0.95 0.92 0.92
Lanes:       1.00 1.69 0.31  1.00 1.80 0.20  1.00 1.91 0.09  1.00 1.59 0.41
Final Sat.:  1805 2977  550  1805 3197  359  1805 3432  156  1805 2792  709
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.22 0.22  0.18 0.29 0.29  0.04 0.38 0.38  0.04 0.28 0.28
Crit Moves:       ****            ****            ****            ****
Green/Cycle: 0.13 0.28 0.28  0.29 0.44 0.44  0.04 0.25  0.25  0.04 0.25 0.25
Volume/Cap:  0.65 0.79 0.79  0.63 0.65 0.65  0.83 1.54  1.54  0.93 1.14 1.14
Delay/Veh:   61.0 44.5 44.5  41.1 27.3 27.3 116.3  291 290.6 138.5  119 119.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  61.0 44.5 44.5  41.1 27.3 27.3 116.3  291 290.6 138.5  119 119.1
DesignQueue:    8   32    6    15   35    4     4   69    3     5   41   10
********************************************************************************
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--------------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                           AM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #22 University Avenue / Martin Luther King Way
********************************************************************************
Cycle (sec):          65        Critical Vol./Cap. (X):          1.018
Loss Time (sec):      12 (Y+R =  5 sec) Average Delay (sec/veh):   40.0
Optimal Cycle:       180        Level Of Service:                    D
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Prot+Permit       Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   5   23   23   23   23   23   17   17   17   17   17   17
Lanes:        1  0  1  1  0  1  0  1  1  0  1  0  1  1  0  1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     178  568   80    57  833   87    81  703  185    41  477   47
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  178  568   80    57  833   87    81  703  185    41  477   47
Added Vol:      1    3    3     0   14    0     2  386   -2     0   40    0
Future:        70    0    0     0  230   30    10  130   20    20  160   80
Initial Fut:  249  571   83    57 1077  117    93 1219  203    61  677  127
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   249  571   83    57 1077  117    93 1219  203    61  677  127
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  249  571   83    57 1077  117    93 1219  203    61  677  127
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   249  571   83    57 1077  117    93 1219  203    61  677  127
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.99 0.93 0.93  1.00 0.94 0.94  0.17 0.93 0.93  1.00 0.93 0.93
Lanes:       1.00 1.75 0.25  1.00 1.80 0.20  1.00 1.71 0.29  1.00 1.68 0.32
Final Sat.:  1880 3092  449  1900 3207  348   315 3030  505  1900 2967  557
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.13 0.18 0.18  0.03 0.34 0.34  0.29 0.40 0.40  0.03 0.23 0.23
Crit Moves:  ****            ****            ****
Green/Cycle: 0.45 0.45 0.45  0.35 0.35 0.35  0.37 0.37 0.37  0.37 0.37 0.37
Volume/Cap:  0.30 0.41 0.41  0.08 0.95 0.95  0.80 1.09 1.09  0.09 0.62 0.62
Delay/Veh:   26.1 11.1 11.1  13.4 35.0 35.0  59.9 72.7 72.7  13.6 18.9 18.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  26.1 11.1 11.1  13.4 35.0 35.0  59.9 72.7 72.7  13.6 18.9 18.9
DesignQueue:    8   12    2     1   27    3     2   31    5     1   16    3
********************************************************************************
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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #23 University Avenue / Milvia Street
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):      0.675
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      14.1
Optimal Cycle:       49          Level Of Service:                B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  21   21   21    21   21   21    20   20   20    20   20   20
Lanes:        1  0  0  1  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     100  98   21     6  203   63    37  656  137    18  406   15
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  100  98   21     6  203   63    37  656  137    18  406   15
Added Vol:      0    0    0     0    0    0     0  390    0     0   40    0
Future:        10   10   10    10   10   10    20   80   20    20  240   20
Initial Fut:  110  108   31    16  213   73    57 1126  157    38  686   35
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   110  108   31    16  213   73    57 1126  157    38  686   35
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  110  108   31    16  213   73    57 1126  157    38  686   35
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   110  108   31    16  213   73    57 1126  157    38  686   35
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.73 0.97 0.97  0.95 0.95 0.95  0.83 0.83 0.83  0.79 0.79 0.79
Lanes:       1.00 0.78 0.22  0.05 0.71 0.24  0.09 1.68 0.23  0.10 1.81 0.09
Final Sat.:  1391 1428  410    96 1276  437   134 2648  369   151 2725  139
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08 0.08  0.17 0.17 0.17  0.43 0.43 0.43  0.25 0.25 0.25
Crit Moves:                       ****             ****
Green/Cycle: 0.32 0.32 0.32  0.32 0.32 0.32  0.55 0.55 0.55  0.55 0.55 0.55
Volume/Cap:  0.24 0.23 0.23  0.52 0.52 0.52  0.77 0.77 0.77  0.45 0.45 0.45
Delay/Veh:   17.5 17.0 17.0  21.1 21.1 21.1  14.6 14.6 14.6   9.5  9.5  9.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  17.5 17.0 17.0  21.1 21.1 21.1  14.6 14.6 14.6   9.5  9.5  9.5
DesignQueue:    3    3    1     0    5    2     1   20    3     1   12    1
********************************************************************************
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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #24 University Avenue / SB Shattuck Avenue
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):      0.652
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      36.8
Optimal Cycle:       41          Level Of Service:                D
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0    16   16   16    16   16   16    16   16   16
Lanes:        0  0  0  0  0    0  1  1  1  0    1  0  1  1  0    0  1  0  1  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:       0    0    0    49  767  105   115  401  162    26  356  314
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0    0    0    49  767  105   115  401  162    26  356  314
Added Vol:      0    0    0     0   15    6    55  211  124     0   34   36
Future:         0    0    0    10  120   60    20   50   10    10  200   90
Initial Fut:    0    0    0    59  902  171   190  662  296    36  590  440
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0    0    0    59  902  171   190  662  296    36  590  440
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0    0    0    59  902  171   190  662  296    36  590  440
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:     0    0    0    59  902  171   190  662  296    36  590  440
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 1.00 1.00  0.78 0.78 0.78  0.30 0.82 0.82  0.70 0.70 0.70
Lanes:       0.00 0.00 0.00  0.16 2.39 0.45  1.00 1.38 0.62  0.10 1.66 1.24
Final Sat.:     0    0    0   232 3551  673   578 2142  958   135 2219 1655
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00  0.25 0.25 0.25  0.33 0.31 0.31  0.27 0.27 0.27
Crit Moves:                       ****             ****
Green/Cycle: 0.00 0.00 0.00  0.36 0.36 0.36  0.30 0.30 0.30  0.00 0.53 0.53
Volume/Cap:  0.00 0.00 0.00  0.71 0.71 0.71  1.10 1.03 1.03  xxxx 0.50 0.50
Delay/Veh:    0.0  0.0  0.0  23.2 23.2 23.2 122.5 63.8 63.8   0.0 12.1 12.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0  0.0  0.0  23.2 23.2 23.2 122.5 63.8 63.8   0.0 12.1 12.1
DesignQueue:    0    0    0     2   25    5     6   21    9     2   12    9
********************************************************************************
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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                           AM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #25 University Avenue / NB Shattuck Avenue
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):        0.471
Loss Time (sec):     15 (Y+R =  4 sec) Average Delay (sec/veh):   17.0
Optimal Cycle:       47          Level Of Service:                B
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:   19   0   19     0    0    0     0   13    0     0   13    0
Lanes:         2  0 1! 0  1    0  0  0  0  0    0  0  2  0  0    0  0  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     458    0  168     0    0    0     0  444    0     0  235    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  458    0  168     0    0    0     0  444    0     0  235    0
Added Vol:     53    0   29     0    0    0     0  211    0     0   18    0
Future:       220    0   20     0    0    0     0    0    0     0   80    0
Initial Fut:  731    0  217     0    0    0     0  655    0     0  333    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   731    0  217     0    0    0     0  655    0     0  333    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  731    0  217     0    0    0     0  655    0     0  333    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   731    0  217     0    0    0     0  655    0     0  333    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.81 1.00 0.84  1.00 1.00 1.00  1.00 0.86 1.00  1.00 0.86 1.00
Lanes:       2.70 0.00 1.30  0.00 0.00 0.00  0.00 2.00 0.00  0.00 2.00 0.00
Final Sat.:  4164    0 2071     0    0    0     0 3249    0     0 3249    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.18 0.00 0.10  0.00 0.00 0.00  0.00 0.20 0.00  0.00 0.10 0.00
Crit Moves:  ****                             ****             ****
Green/Cycle: 0.37 0.00 0.37  0.00 0.00 0.00  0.00 0.43 0.00  0.00 0.43 0.00
Volume/Cap:  0.47 0.00 0.28  0.00 0.00 0.00  0.00 0.47 0.00  0.00 0.24 0.00
Delay/Veh:   18.7  0.0 16.7   0.0  0.0  0.0   0.0 16.5  0.0   0.0 14.1  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  18.7  0.0 16.7   0.0  0.0  0.0   0.0 16.5  0.0   0.0 14.1  0.0
DesignQueue:   20    0    6     0    0    0     0   16    0     0    8    0
********************************************************************************
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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                           AM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #26 University Avenue / Oxford Street
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.914
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):   38.8
Optimal Cycle:      127          Level Of Service:                D
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Prot+Permit       Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    5   18   18     5   18   18    18   18   18    18   18   18
Lanes:         1  0  1  1  0    1  0  1  1  0    1  1  0  0  1    0  0 1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     147  487    4    41 1101   77   300   38  217     6   12   23
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  147  487    4    41 1101   77   300   38  217     6   12   23
Added Vol:     10   54   -2    -3   79    8    99   -6  147     0   -1    0
Future:        50   90    0    10   80   30    20   10   20     0   10   10
Initial Fut:  207  631    2    48 1260  115   419   42  384     6   21   33
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   207  631    2    48 1260  115   419   42  384     6   21   33
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  207  631    2    48 1260  115   419   42  384     6   21   33
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   207  631    2    48 1260  115   419   42  384     6   21   33
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.86 0.86 0.86  0.32 0.84 0.84  0.64 0.64 0.77  0.82 0.82 0.82
Lanes:       1.00 1.99 0.01  1.00 1.83 0.17  1.82 0.18 1.00  0.10 0.35 0.55
Final Sat.:  1625 3239   10   607 2939  268  2213  222 1454   155  544  855
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.13 0.19 0.19  0.08 0.43 0.43  0.19 0.19 0.26  0.04 0.04 0.04
Crit Moves:  ****                   ****             ****
Green/Cycle: 0.41 0.41 0.41  0.41 0.41 0.41  0.30 0.30 0.30  0.30 0.30 0.30
Volume/Cap:  0.31 0.48 0.48  0.19 1.05 1.05  0.63 0.63 0.88  0.13 0.13 0.13
Delay/Veh:   14.3 15.4 15.4  14.1 58.9 58.9  23.8 23.8 43.3  17.1 17.1 17.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  14.3 15.4 15.4  14.1 58.9 58.9  23.8 23.8 43.3  17.1 17.1 17.1
DesignQueue:    5   14    0     1   30    3    11    1   10     0    1    1
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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Unsignalized Method (Future Volume Alternative)
*******************************************************************************
Intersection #27 Univeristy Drive (East Gate)  / Gayley Road
*******************************************************************************
Average Delay (sec/veh):     2.6        Worst Case Level Of Service:        D
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled      Uncontrolled       Stop Sign        Stop Sign
Rights:          Include           Include           Include          Include
Lanes:       1  0  1  0  0    0  0  0  1  0    1  0  0  0  1    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     69  476    0      0  543   75     53    0   73      0    0    0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  69  476    0      0  543   75     53    0   73      0    0    0
Added Vol:   -13   69    0      0   84  -21     -2    0   -1      0    0    0
Future:       20   70    0      0  110   10     10    0   20      0    0    0
Initial Fut:  76  615    0      0  737   64     61    0   92      0    0    0
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00

PHF Volume:   76  615    0      0  737   64     61    0   92      0    0    0
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Final Vol.:   76  615    0      0  737   64     61    0   92      0    0    0
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 801 xxxx xxxxx  xxxx xxxx xxxxx  1536 xxxx   769 xxxxx xxxx xxxxx
Potent Cap.: 831 xxxx xxxxx  xxxx xxxx xxxxx   129 xxxx   404 xxxxx xxxx xxxxx
Move Cap.:   831 xxxx xxxxx  xxxx xxxx xxxxx   120 xxxx   404 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:  9.8 xxxx xxxxx xxxxx xxxx xxxxx  62.5 xxxx  16.5 xxxxx xxxx xxxxx
LOS by Move:   A   *    *     *    *    *       F   *     C     *    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx     0 xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *    *     *    *    *       *    *    *     *    *    *
ApproachDel:    xxxxxx          xxxxxx            34.8          xxxxxx
ApproachLOS:       *               *               D               *
```

```
-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Unsignalized Method (Future Volume Alternative)
*******************************************************************************
Intersection #28 Addison Street / Oxford Street
*******************************************************************************
Average Delay (sec/veh):     0.8        Worst Case Level Of Service:        E
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled      Uncontrolled       Stop Sign        Stop Sign
Rights:          Include           Include           Include          Include
Lanes:       1  0  2  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     54  647    0      0 1165   61      4    0   31      0    0    0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  54  647    0      0 1165   61      4    0   31      0    0    0
Added Vol:    20   60    0      0  207   18      2    0    2      0    0    0
PasserByVol:  20  140    0      0   90   10      0    0   10      0    0    0
Initial Fut:  94  847    0      0 1462   89      6    0   43      0    0    0
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    0.91 0.91 0.91   0.91 0.91 0.91   0.91 0.91 0.91   0.91 0.91 0.91
PHF Volume:  103  931    0      0 1607   98      7    0   47      0    0    0
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Final Vol.:  103  931    0      0 1607   98      7    0   47      0    0    0
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8 xxxx   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:1287 xxxx xxxxx  xxxx xxxx xxxxx  2108 xxxx   147 xxxxx xxxx xxxxx
Potent Cap.: 408 xxxx xxxxx  xxxx xxxx xxxxx    34 xxxx   657 xxxxx xxxx xxxxx
Move Cap.:   408 xxxx xxxxx  xxxx xxxx xxxxx    27 xxxx   657 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 16.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   C   *    *     *    *    *       *    *    *     *    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  171 xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  xxxxx 35.4 xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *    *     *    *    *       *    E    *     *    *    *
ApproachDel:    xxxxxx          xxxxxx            35.4          xxxxxx
ApproachLOS:       *               *               E               *
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #29 Center Street / SB Shattuck Avenue
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):         0.449
Loss Time (sec):      12 (Y+R =  9 sec) Average Delay (sec/veh):   16.8
Optimal Cycle:        65          Level Of Service:                   B
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0   20   20   20    0   22   22   33   33    0
Lanes:         0    0    0    0    0    1    1    1    0    0    0    1    0    0    1    0    0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0   15  779   71    0   69   51   17  102    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0   15  779   71    0   69   51   17  102    0
Added Vol:     0    0    0    0   83    0    0    2    0    0    0    0
Future:        0    0    0    0  130   20    0   50   30   30   40    0
Initial Fut:   0    0    0   15  992   91    0  121   81   47  142    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0    0    0   15  992   91    0  121   81   47  142    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0    0    0   15  992   91    0  121   81   47  142    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0    0    0   15  992   91    0  121   81   47  142    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.80 0.80 0.80 1.00 0.85 0.85 0.80 0.80 1.00
Lanes:      0.00 0.00 0.00 0.04 2.71 0.25 0.00 0.60 0.40 0.25 0.75 0.00
Final Sat.:    0    0    0   62 4117  378    0  969  649  377 1138    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.24 0.24 0.24 0.00 0.12 0.12 0.12 0.12 0.00
Crit Moves:                    ****              ****
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.34 0.34 0.51 0.51 0.00
Volume/Cap: 0.00 0.00 0.00 0.78 0.78 0.78 0.00 0.37 0.37 0.25 0.25 0.00
Delay/Veh:   0.0  0.0  0.0 18.9 18.9 18.9  0.0 18.2 18.2  3.6  3.6  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 18.9 18.9 18.9  0.0 18.2 18.2  3.6  3.6  0.0
DesignQueue:   0    0    0    0   26    2    0    3    2    1    3    0
********************************************************************************


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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #30 Center Street / NB Shattuck Avenue
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):         0.396
Loss Time (sec):       8 (Y+R =  9 sec) Average Delay (sec/veh):    5.3
Optimal Cycle:        60          Level Of Service:                   A
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   30   30   30    0    0    0   22   22    0    0   22   22
Lanes:         0    1    1    1    0    0    0    0    0    0    0    1    0    0    0    0    0    1    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     42  616   51    0    0    0   26   56    0    0   77   26
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  42  616   51    0    0    0   26   56    0    0   77   26
Added Vol:     0   98   -2    0    0    0    0    2    0    0    0    0
Future:       30  200   60    0    0    0   10   40    0    0   40   30
Initial Fut:  72  914  109    0    0    0   36   98    0    0  117   56
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   72  914  109    0    0    0   36   98    0    0  117   56
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  72  914  109    0    0    0   36   98    0    0  117   56
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   72  914  109    0    0    0   36   98    0    0  117   56
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.79 0.79 1.00 1.00 1.00 0.79 0.79 1.00 1.00 0.86 0.86
Lanes:      0.20 2.50 0.30 0.00 0.00 0.00 0.27 0.73 0.00 0.00 0.68 0.32
Final Sat.:  298 3781  451    0    0    0  405 1103    0    0 1106  529
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.24 0.24 0.24 0.00 0.00 0.00 0.09 0.09 0.00 0.00 0.11 0.11
Crit Moves:      ****                                              ****
Green/Cycle: 0.54 0.54 0.54 0.00 0.00 0.00 0.34 0.34 0.00 0.00 0.34 0.34
Volume/Cap: 0.45 0.45 0.45 0.00 0.00 0.00 0.26 0.26 0.00 0.00 0.31 0.31
Delay/Veh:   2.6  2.6  2.6  0.0  0.0  0.0 11.5 11.5  0.0  0.0 17.4 17.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  2.6  2.6  2.6  0.0  0.0  0.0 11.5 11.5  0.0  0.0 17.4 17.4
DesignQueue:   1   16    2    0    0    0    1    2    0    0    3    1
********************************************************************************


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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #31 Center Street / Oxford Street
********************************************************************************
Cycle (sec):          65         Critical Vol./Cap. (X):       0.674
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):  13.3
Optimal Cycle:        46         Level Of Service:               B
********************************************************************************
Approach:         North Bound    South Bound     East Bound     West Bound
Movement:       L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Permitted       Permitted       Permitted       Permitted
Rights:           Include         Include         Include         Include
Min. Green:   19   19   19    19   19   19    19   19   19    19   19   19
Lanes:        1 0  1  1 0    1 0  1  1 0    0 0  1  1! 0 0    0 0  1  1! 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      50  663   42    11 1145   39    26   10   43    19    6    8
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   50  663   42    11 1145   39    26   10   43    19    6    8
Added Vol:      0   77   -2    -5  214    0     4   -4    0     0    0    0
Future:        30   90   10     0   70   30    60    0   30     0    0    0
Initial Fut:   80  830   50     6 1429   69    90    6   73    19    6    8
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    80  830   50     6 1429   69    90    6   73    19    6    8
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   80  830   50     6 1429   69    90    6   73    19    6    8
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    80  830   50     6 1429   69    90    6   73    19    6    8
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.11 0.85 0.85  0.28 0.85 0.85  0.70 0.70 0.70  0.74 0.74 0.74
Lanes:       1.00 1.89 0.11  1.00 1.91 0.09  0.53 0.04 0.43  0.58 0.18 0.24
Final Sat.:   210 3037  183   525 3078  149   709   47  575   804  254  339
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.38 0.27 0.27  0.01 0.46 0.46  0.13 0.13 0.13  0.02 0.02 0.02
Crit Moves:              ****            ****       ****
Green/Cycle: 0.58 0.58 0.58  0.58 0.58 0.58  0.29 0.29 0.29  0.29 0.29 0.29
Volume/Cap:  0.65 0.47 0.47  0.02 0.79 0.79  0.43 0.43 0.43  0.08 0.08 0.08
Delay/Veh:   32.7  8.6  8.6   5.8 14.0 14.0  22.2 22.2 22.2  17.1 17.1 17.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  32.7  8.6  8.6   5.8 14.0 14.0  22.2 22.2 22.2  17.1 17.1 17.1
DesignQueue:    1   13    1     0   24    1     2    0    2     0    0    0
********************************************************************************
```

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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #32 Stadium Rim Road / Gayley Road
********************************************************************************
Cycle (sec):         100         Critical Vol./Cap. (X):       1.220
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):  79.2
Optimal Cycle:         0         Level Of Service:               F
********************************************************************************
Approach:         North Bound    South Bound     East Bound     West Bound
Movement:       L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign       Stop Sign       Stop Sign       Stop Sign
Rights:           Include         Include         Include         Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0 0  0  1 0    0 1  0  0 0    0 0  1  1! 0 0    0 0  1  1! 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:       0  386   19   128  471    0    12    5   14    18    1  118
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  386   19   128  471    0    12    5   14    18    1  118
Added Vol:      0   49   18    19   64    0     0    0    0    24    0    7
Future:         0   60   10    20  100    0     0    0    0    10    0   20
Initial Fut:    0  495   47   167  635    0    12    5   14    52    1  145
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0  495   47   167  635    0    12    5   14    52    1  145
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0  495   47   167  635    0    12    5   14    52    1  145
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:     0  495   47   167  635    0    12    5   14    52    1  145
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:       0.00 0.91 0.09  0.21 0.79 0.00  0.39 0.16 0.45  0.26 0.01 0.73
Final Sat.:     0  591   56   137  520    0   180   75  210   142    3  397
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx 0.84 0.84  1.22 1.22 xxxx  0.07 0.07 0.07  0.37 0.37 0.37
Crit Moves:       ****            ****       ****            ****
Delay/Veh:    0.0 30.1 30.1 131.5  132  0.0  10.7 10.7 10.7  12.9 12.9 12.9
Delay Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 30.1 30.1 131.5  132  0.0  10.7 10.7 10.7  12.9 12.9 12.9
LOS by Move:    *    D    D     F    F    *     B    B    B     B    B    B
ApproachDel:      30.1           131.5           10.7            12.9
Delay Adj:        1.00            1.00            1.00            1.00
ApprAdjDel:       30.1           131.5           10.7            12.9
LOS by Appr:         D               F               B               B
********************************************************************************
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--------------------------------------------------------------------------     --------------------------------------------------------------------------
                         UC Berkeley LRDP EIR                                                           UC Berkeley LRDP EIR
                      2020 With Project Conditions                                                   2020 With Project Conditions
                            AM Peak Hour                                                                   AM Peak Hour
--------------------------------------------------------------------------     --------------------------------------------------------------------------
                   Level Of Service Computation Report                                            Level Of Service Computation Report
           2000 HCM Unsignalized Method (Future Volume Alternative)                       2000 HCM Unsignalized Method (Future Volume Alternative)
**************************************************************************       **************************************************************************
Intersection #33 Allston Way / Oxford Street                                   Intersection #34 Kittridge Street / Oxford Street / Fulton Street
**************************************************************************       **************************************************************************
Average Delay (sec/veh):     5.2      Worst Case Level Of Service:      E       Average Delay (sec/veh):     8.4      Worst Case Level Of Service:      F
**************************************************************************       **************************************************************************
Approach:    North Bound     South Bound     East Bound     West Bound         Approach:    North Bound     South Bound     East Bound     West Bound
Movement:   L - T - R       L - T - R       L - T - R       L - T - R          Movement:   L - T - R       L - T - R       L - T - R       L - T - R
-----------|--------------||--------------||--------------||--------------|     -----------|--------------||--------------||--------------||--------------|
Control:     Uncontrolled    Uncontrolled     Stop Sign      Stop Sign         Control:     Uncontrolled    Uncontrolled     Stop Sign      Stop Sign
Rights:        Include         Include         Include         Include         Rights:        Include         Include         Include         Include
Lanes:      0  1  1  0  0   0  1  0  1  0   1  0  0  0  1   0  0  0  0  0       Lanes:      0  1  0  1  0   0  1  0  1  0   0  0  1! 0  0   0  0  1! 0  0
-----------|--------------||--------------||--------------||--------------|     -----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM                  Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    17  798    0   59 1111   34   16    0   33    0    0    0          Base Vol:    13  801    0    0 1122   18    6    0   23    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00         Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 17  798    0   59 1111   34   16    0   33    0    0    0          Initial Bse: 13  801    0    0 1122   18    6    0   23    0    0    0
Added Vol:    0   75    0    0  214    0    0    0    0    0    0    0          Added Vol:    0   68   23   69  145    0    0   27    0    2    3    7
Future:      10  130    0   10   80   10    0    0   30    0    0    0          Future:       0  120    0    0   70   30   10    0   10    0    0    0
Initial Fut: 27 1003    0   69 1405   44   16    0   63    0    0    0          Initial Fut: 13  989   23   69 1337   48   16   27   33    2    3    7
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00         User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93         PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  29 1078    0   74 1511   47   17    0   68    0    0    0          PHF Volume:  13  989   23   69 1337   48   16   27   33    2    3    7
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0          Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:  29 1078    0   74 1511   47   17    0   68    0    0    0          Final Vol.:  13  989   23   69 1337   48   16   27   33    2    3    7
Critical Gap Module:                                                           Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx  4.1 xxxx xxxxx  6.8 xxxx  6.9 xxxxx xxxx xxxxx     Critical Gp: 4.1 xxxx xxxxx  4.1 xxxx xxxxx  7.5  6.5  6.9  7.5  6.5  6.9
FollowUpTim: 2.2 xxxx xxxxx  2.2 xxxx xxxxx  3.5 xxxx  3.3 xxxxx xxxx xxxxx     FollowUpTim: 2.2 xxxx xxxxx  2.2 xxxx xxxxx  3.5  4.0  3.3  3.5  4.0  3.3
-----------|--------------||--------------||--------------||--------------|     -----------|--------------||--------------||--------------||--------------|
Capacity Module:                                                               Capacity Module:
Cnflict Vol: 1050 xxxx xxxxx 1078 xxxx xxxxx 2042 xxxx   10 xxxx               Cnflict Vol: 513 xxxx xxxxx 1012 xxxx xxxxx 1521 2303    0 1257 2322  506
Potent Cap.: 503 xxxx xxxxx  654 xxxx xxxxx   37 xxxx  805 xxxx               Potent Cap.: 701 xxxx xxxxx  693 xxxx xxxxx   55   26    0   86   25  517
Move Cap.:   503 xxxx xxxxx  654 xxxx xxxxx   32 xxxx  805 xxxx xxxx xxxxx     Move Cap.:   701 xxxx xxxxx  693 xxxx xxxxx   44   23    0    0   22  517
-----------|--------------||--------------||--------------||--------------|     -----------|--------------||--------------||--------------||--------------|
Level Of Service Module:                                                       Level Of Service Module:
Stopped Del: 12.6 xxxx xxxxx 11.2 xxxx xxxxx 204.1 xxxx  9.9 xxxxx xxxx xxxxx   Stopped Del: 10.2 xxxx xxxxx 10.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  B    *    *     B    *    *     F    *    A    *    *    *        LOS by Move:  B    *    *     B    *    *     *    *    *    *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT   Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx    Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx   49 xxxxx xxxx    0 xxxxx
Shrd StpDel: 12.6 xxxx xxxxx 11.2 xxxx xxxxx                                    Shrd StpDel: 10.2 xxxx xxxxx 10.8 xxxx xxxxx xxxx  466 xxxxx xxxxx xxxx xxxxx
Shared LOS:   B    *    *     B    *    *     *    *    *    *    *    *        Shared LOS:   B    *    *     B    *    *     *    F    *    *    *    *
ApproachDel:    xxxxxx          xxxxxx         49.2          xxxxxx             ApproachDel:    xxxxxx          xxxxxx          466.0          xxxxxx
ApproachLOS:      *               *             E              *               ApproachLOS:      *               *              F              F


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--------------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                           AM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #35 Stadium Rim Road / Centennial Drive
********************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):      0.341
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):      9.6
Optimal Cycle:       0          Level Of Service:               A
********************************************************************************
Approach:     North Bound    South Bound     East Bound     West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign      Stop Sign       Stop Sign       Stop Sign
Rights:         Include         Include         Include         Include
Min. Green:   0   0   0     0   0   0      0   0   0      0   0   0
Lanes:        0 0 0 1 0     0 1 0 0 0      0 0 0 0 0      0 0 1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  70 160    94  22   0     0   0   0    114   0  71
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0  70 160    94  22   0     0   0   0    114   0  71
Added Vol:     0   0   0    37   0   0     0   0   0      0   0  31
Future:        0  20  20    20  10   0     0   0   0     20   0  10
Initial Fut:   0  90 180   151  32   0     0   0   0    134   0 112
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0  90 180   151  32   0     0   0   0    134   0 112
Reduct Vol:    0   0   0     0   0   0     0   0   0      0   0   0
Reduced Vol:   0  90 180   151  32   0     0   0   0    134   0 112
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0  90 180   151  32   0     0   0   0    134   0 112
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.00 0.33 0.67 0.83 0.17 0.00 0.00 0.00 0.00 0.54 0.00 0.46
Final Sat.:    0 267 533   574 122   0     0   0   0    393   0 329
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx 0.34 0.34 0.26 0.26 xxxx xxxx xxxx xxxx 0.34 xxxx 0.34
Crit Moves:       ****      ****                              ****
Delay/Veh:   0.0  9.4  9.4  9.6  9.6  0.0  0.0  0.0  0.0  9.9  0.0  9.9
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  9.4  9.4  9.6  9.6  0.0  0.0  0.0  0.0  9.9  0.0  9.9
LOS by Move:  *   A    A    A    A    *    *    *    *    A    *    A
ApproachDel:     9.4           9.6         xxxxxx         9.9
Delay Adj:       1.00          1.00        xxxxx          1.00
ApprAdjDel:      9.4           9.6         xxxxxx         9.9
LOS by Appr:     A             A           *              A
********************************************************************************
```

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--------------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                           AM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #36 Bancroft Way / Shattuck Avenue
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):      0.605
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     10.5
Optimal Cycle:      42          Level Of Service:               B
********************************************************************************
Approach:     North Bound    South Bound     East Bound     West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted      Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  18  18   0     0  18  18      0   0   0     16  16  16
Lanes:        1 0 2 0 0     0 0 1 1 0      0 0 1! 0 0     1 0 0 1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     29 912   0     0 788  12     1   0  62    116  51  71
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  29 912   0     0 788  12     1   0  62    116  51  71
Added Vol:     0 115   0     0  86   0     0   0  12     12   0   9
Future:       10 280   0     0 190  10     0   0   0     30  10  10
Initial Fut:  39 1307  0     0 1064 22     1   0  62    158  61  90
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   39 1307  0     0 1064 22     1   0  62    158  61  90
Reduct Vol:    0   0   0     0   0   0     0   0   0      0   0   0
Reduced Vol:  39 1307  0     0 1064 22     1   0  62    158  61  90
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   39 1307  0     0 1064 22     1   0  62    158  61  90
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.24 0.86 1.00 1.00 0.85 0.85 0.78 1.00 0.78 0.65 0.82 0.82
Lanes:      1.00 2.00 0.00 0.00 1.96 0.04 0.02 0.00 0.98 1.00 0.40 0.60
Final Sat.:  450 3249   0     0 3174 66    23   0 1453 1228 629 928
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.09 0.40 0.00 0.00 0.34 0.34 0.04 0.00 0.04 0.13 0.10 0.10
Crit Moves:       ****                                   ****
Green/Cycle: 0.63 0.63 0.00 0.00 0.63 0.63 0.25 0.00 0.25 0.25 0.25 0.25
Volume/Cap: 0.14 0.64 0.00 0.00 0.53 0.53 0.17 0.00 0.17 0.52 0.39 0.39
Delay/Veh:   5.9  8.9  0.0  0.0  7.7  7.7 20.3  0.0 20.3 27.5 23.5 23.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  5.9  8.9  0.0  0.0  7.7  7.7 20.3  0.0 20.3 27.5 23.5 23.5
DesignQueue:  1  19   0     0  15   0     0   0   2     4   2   3
********************************************************************************
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                            UC Berkeley LRDP EIR
                         2020 With Project Conditions
                               AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #37 Bancroft Way / Fulton Street
********************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):          0.421
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):        9.7
Optimal Cycle:      49          Level Of Service:                   A
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Ignore
Min. Green:   17   17    0     0   17   17     0    0    0    24   24   24
Lanes:         0    1    1 0    0    0    2 1 0    0    0    0 0    0    1    1 0 1
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     13  146    0     0 1071   79     0    0    0    84  173  650
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  13  146    0     0 1071   79     0    0    0    84  173  650
Added Vol:    13    0    0     0  127   20     0    0    0     2   24   91
Future:       10   10    0     0   60   10     0    0    0    10   20  110
Initial Fut:  36  156    0     0 1258  109     0    0    0    96  217  851
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Volume:   36  156    0     0 1258  109     0    0    0    96  217    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  36  156    0     0 1258  109     0    0    0    96  217    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
Final Vol.:   36  156    0     0 1258  109     0    0    0    96  217    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.71 0.71 1.00  1.00 0.90 0.90  1.00 1.00 1.00  0.81 0.81 1.00
Lanes:       0.37 1.63 0.00  0.00 2.76 0.24  0.00 0.00 0.00  0.61 1.39 1.00
Final Sat.:  506 2194    0     0 4716  409     0    0    0   941 2127 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.07 0.00  0.00 0.27 0.27  0.00 0.00 0.00  0.10 0.10 0.00
Crit Moves:                        ****                           ****
Green/Cycle: 0.51 0.51 0.00  0.00 0.51 0.51  0.00 0.00 0.00  0.37 0.37 0.00
Volume/Cap:  0.14 0.14 0.00  0.00 0.53 0.53  0.00 0.00 0.00  0.28 0.28 0.00
Delay/Veh:    6.6  6.6  0.0   0.0  8.9  8.9   0.0  0.0  0.0  15.0 15.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   6.6  6.6  0.0   0.0  8.9  8.9   0.0  0.0  0.0  15.0 15.0  0.0
DesignQueue:   1    3    0     0   24    2     0    0    0     2    5    0
********************************************************************************
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                            UC Berkeley LRDP EIR
                         2020 With Project Conditions
                               AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #38 Bancroft Way / Ellsworth Street
********************************************************************************
Average Delay (sec/veh):      4.5          Worst Case Level Of Service:      C
********************************************************************************
Approach:     North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:         1  1  0  0  0    0  0  0  0  1    0  0  0  0  0    0  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    241   60    0     0    0   11     0    0    0     0  674   39
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 241   60    0     0    0   11     0    0    0     0  674   39
Added Vol:    96    0    0     0    0    0     0    0    0     0  128    0
Future:       10    0    0     0    0    0     0    0    0     0  130    0
Initial Fut: 347   60    0     0    0   11     0    0    0     0  932   39
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  347   60    0     0    0   11     0    0    0     0  932   39
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:  347   60    0     0    0   11     0    0    0     0  932   39
Critical Gap Module:

Critical Gp: 7.1  6.5 xxxxx xxxxx xxxx  6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim: 3.5  4.0 xxxxx xxxxx xxxx  3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 466  971 xxxxx  xxxx xxxx  486 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: 510  255 xxxxx  xxxx xxxx  586 xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   501  255 xxxxx  xxxx xxxx  586 xxxx xxxx xxxxx  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 16.0 xxxx xxxxx xxxxx xxxx 11.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  C    *    *     *    *    B     *    *    *     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: 401 xxxxx xxxxx  xxxx xxxx xxxxx xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel: 25.7 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   D    *    *     *    *    *     *    *    *     *    *    *
ApproachDel:     21.6            11.3           xxxxxx           xxxxxx
ApproachLOS:      C               B                *                *
********************************************************************************
```

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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------
                  Level Of Service Computation Report
         2000 HCM Unsignalized Method (Future Volume Alternative)
*************************************************************************
Intersection #39 Bancroft Way / Dana Street
*************************************************************************
Average Delay (sec/veh):     0.0          Worst Case Level Of Service:      A
*************************************************************************
Approach:     North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  0  0  0    0  0  0  0  0    0  1  2  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0   0    0     0    0    0     0    0    0    145  721    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0   0    0     0    0    0     0    0    0    145  721    0
Added Vol:    0   0    0     0    0    0     0    0    0      4  128    0
Future:       0   0    0     0    0    0     0    0    0     50  130    0
Initial Fut:  0   0    0     0    0    0     0    0    0    199  979    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0   0    0     0    0    0     0    0    0    199  979    0
Reduct Vol:   0   0    0     0    0    0     0    0    0      0    0    0
Final Vol.:   0   0    0     0    0    0     0    0    0    199  979    0
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  2.2 xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  0.0 xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     *    *    *     A    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  0.0 xxxx xxxxx
Shared LOS:   *    *    *     *    *    *     *    *    *     A    *    *
ApproachDel:   xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:      *                *                *                *
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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #40 Bancroft Way / Telegraph Avenue
*************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):       0.327
Loss Time (sec):       8 (Y+R = 23 sec) Average Delay (sec/veh):    21.6
Optimal Cycle:        46          Level Of Service:               C
*************************************************************************
Approach:     North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:  15    0    0     0    0    0     0    0    0     0   23    0
Lanes:        2  0  0  0  0    0  0  0  0  0    0  0  0  0  0    0  0  3  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    427    0    0     0    0    0     0    0    0     0  460    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 427    0    0     0    0    0     0    0    0     0  460    0
Added Vol:    24    0    0     0    0    0     0    0    0     0  143    0
Future:      100    0    0     0    0    0     0    0    0     0   70    0
Initial Fut: 551    0    0     0    0    0     0    0    0     0  673    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  551    0    0     0    0    0     0    0    0     0  673    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 551    0    0     0    0    0     0    0    0     0  673    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  551    0    0     0    0    0     0    0    0     0  673    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.92 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
Lanes:      2.00 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 3.00 0.00
Final Sat.: 3502    0    0     0    0    0     0    0    0     0 5187    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 0.13 0.00
Crit Moves: ****                                               ****
Green/Cycle: 0.23 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 0.35 0.00
Volume/Cap: 0.37 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 0.37 0.00
Delay/Veh:  28.2  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0 16.2  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 28.2  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0 16.2  0.0
DesignQueue:  16    0    0     0    0    0     0    0    0     0   16    0
*************************************************************************
```

                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour

                    Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
****
Intersection #41 Bancroft Way / Bowditch Street
****
Cycle (sec):   100   Critical Vol./Cap. (X):   0.596
Loss Time (sec):   0 (Y+R = 4 sec) Average Delay (sec/veh):   14.1
Optimal Cycle: 0   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Stop Sign   Stop Sign   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 1 0 0 0 0   0 0 0 0 0   0 0 0 0 0   0 1 1 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 191   0   0   0   0   0   0   0   0   99 494   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 191   0   0   0   0   0   0   0   0   99 494   0
Added Vol: 0   0   0   0   0   0   0   0   0   3 143   0
Future: 10   0   0   0   0   0   0   0   0   20   60   0
Initial Fut: 201   0   0   0   0   0   0   0   0 122 697   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 201   0   0   0   0   0   0   0   0 122 697   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 201   0   0   0   0   0   0   0   0 122 697   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 201   0   0   0   0   0   0   0   0 122 697   0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.30 1.70 0.00
Final Sat.: 625   0   0   0   0   0   0   0   0 205 1189   0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.32 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.60 0.59 xxxx
Crit Moves: ****   ****
Delay/Veh: 11.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.2 14.7 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.2 14.7 0.0
LOS by Move: B   *   *   *   *   *   *   *   *   C   B   *
ApproachDel: 11.1   xxxxxx   xxxxxx   14.8
Delay Adj: 1.00   xxxxx   xxxxx   1.00
ApprAdjDel: 11.1   xxxxxx   xxxxxx   14.8
LOS by Appr: B   *   *   B
****

                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour

                    Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
****
Intersection #42 Bancroft Way / College Avenue
****
Cycle (sec):   100   Critical Vol./Cap. (X):   0.743
Loss Time (sec):   0 (Y+R = 4 sec) Average Delay (sec/veh):   16.8
Optimal Cycle: 0   Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Stop Sign   Stop Sign   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 1 0 0 0 0   0 0 0 0 0   0 0 0 0 0   0 1 1 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 343   0   0   0   0   0   0   0   0   34 203   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 343   0   0   0   0   0   0   0   0   34 203   0
Added Vol: 157   0   0   0   0   0   0   0   0   1 132   0
Future: 10   0   0   0   0   0   0   0   0   20   60   0
Initial Fut: 510   0   0   0   0   0   0   0   0   55 395   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 510   0   0   0   0   0   0   0   0   55 395   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 510   0   0   0   0   0   0   0   0   55 395   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 510   0   0   0   0   0   0   0   0   55 395   0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.24 1.76 0.00
Final Sat.: 686   0   0   0   0   0   0   0   0 144 1045   0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.74 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.38 0.38 xxxx
Crit Moves: ****   ****
Delay/Veh: 21.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 12.1 11.9 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 21.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 12.1 11.9 0.0
LOS by Move: C   *   *   *   *   *   *   *   *   B   B   *
ApproachDel: 21.1   xxxxxx   xxxxxx   12.0
Delay Adj: 1.00   xxxxx   xxxxx   1.00
ApprAdjDel: 21.1   xxxxxx   xxxxxx   12.0
LOS by Appr: C   *   *   B
****

```
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #43 Bancroft Way / Piedmont Avenue
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):          1.224
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    86.7
Optimal Cycle:         0          Level Of Service:                   F
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:    0    0    0    0    0    0    0    0    0    0    0    0
Lanes:         0    1    0    0    0    0    1    0    0    0    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    131  553    0    0  344  123    0    0    0    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 131  553    0    0  344  123    0    0    0    0    0    0
Added Vol:   104  103    0    0   46   29    0    0    0    0    0    0
Future:       10   60    0    0   40   60    0    0    0    0    0    0
Initial Fut: 245  716    0    0  430  212    0    0    0    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  245  716    0    0  430  212    0    0    0    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 245  716    0    0  430  212    0    0    0    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  245  716    0    0  430  212    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.25 0.75 0.00 0.00 0.67 0.33 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.:  200  585    0    0  537  265    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    1.22 1.22 xxxx xxxx 0.80 0.80 xxxx xxxx xxxx xxxx xxxx xxxx
Crit Moves:      ****              ****
Delay/Veh: 129.2  129  0.0  0.0 23.0 23.0  0.0  0.0  0.0  0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:129.2  129  0.0  0.0 23.0 23.0  0.0  0.0  0.0  0.0  0.0  0.0
LOS by Move:   F    F    *    *    C    C    *    *    *    *    *    *
ApproachDel:    129.2            23.0          xxxxxx           xxxxxx
Delay Adj:       1.00             1.00          xxxxx            xxxxx
ApprAdjDel:     129.2            23.0          xxxxxx           xxxxxx
LOS by Appr:       F                C              *                *
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #44 Durant Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):          0.749
Loss Time (sec):      12 (Y+R =  5 sec) Average Delay (sec/veh):    14.2
Optimal Cycle:        59          Level Of Service:                   B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted       Prot+Permit       Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   19   19   19    5   19   19   17   17   17    0    0    0
Lanes:         1    0    1    1    0    1    0    1    1    0    0    1    0    1    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     55  943  136   67  886    8    9   70   35    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  55  943  136   67  886    8    9   70   35    0    0    0
Added Vol:     0  115  105   66   31    0    0    0    0    0    0    0
Future:       10   90   70   40  180   10  200   40    0    0    0    0
Initial Fut:  65 1148  311  173 1097   18  209  110   35    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   65 1148  311  173 1097   18  209  110   35    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  65 1148  311  173 1097   18  209  110   35    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   65 1148  311  173 1097   18  209  110   35    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.95 1.00 0.95 0.95 0.95 0.95 0.95 1.00 1.00 1.00
Lanes:      1.00 1.57 0.43 1.00 1.97 0.03 1.00 0.76 0.24 0.00 0.00 0.00
Final Sat.: 1900 2840  770 1900 3552   58 1805 1369  436    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.03 0.40 0.40 0.09 0.31 0.31 0.12 0.08 0.08 0.00 0.00 0.00
Crit Moves:      ****              ****              ****
Green/Cycle:0.45 0.45 0.45 0.10 0.55 0.55 0.26 0.28 0.28 0.00 0.00 0.00
Volume/Cap: 0.08 0.89 0.89 0.89 0.56 0.56 0.44 0.29 0.29 0.00 0.00 0.00
Delay/Veh:   4.7 15.4 15.4 68.5  2.7  2.7 21.8 18.9 18.9  0.0  0.0  0.0
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  4.7 15.4 15.4 68.5  2.7  2.7 21.8 18.9 18.9  0.0  0.0  0.0
DesignQueue:   1   25    7    6   19    0    6    3    1    0    0    0
********************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #45 Durant Avenue / Fulton Street
*******************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.459
Loss Time (sec):      8 (Y+R =  3 sec) Average Delay (sec/veh):    10.9
Optimal Cycle:       51          Level Of Service:                   B
*******************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0   21   21    0   22   22   22    0    0    0
Lanes:        0    0    0 0  1    1    1 0  1    0    1    1 0  0    0    0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0    0    0  459  656    0  123  262   27    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0    0  459  656    0  123  262   27    0    0    0
Added Vol:    0    0    0   96   34    0   13  158    0    0    0    0
Future:       0    0    0   30   40    0   20   90   30    0    0    0
Initial Fut:  0    0    0  585  730    0  156  510   57    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0    0    0  585  730    0  156  510   57    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0    0    0  585  730    0  156  510   57    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0    0    0  585  730    0  156  510   57    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 0.95 1.00 0.99 0.94 0.94 1.00 1.00 1.00
Lanes:      0.00 0.00 0.00 1.33 1.67 0.00 1.00 1.80 0.20 0.00 0.00 0.00
Final Sat.:   0    0    0 2409 3006    0 1872 3198  357    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.24 0.24 0.00 0.08 0.16 0.16 0.00 0.00 0.00
Crit Moves:            ****           ****
Green/Cycle: 0.00 0.00 0.00 0.53 0.53 0.00 0.35 0.35 0.35 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.46 0.46 0.00 0.24 0.46 0.46 0.00 0.00 0.00
Delay/Veh:   0.0  0.0  0.0  7.4  7.4  0.0 16.0 17.7 17.7  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  7.4  7.4  0.0 16.0 17.7 17.7  0.0  0.0  0.0
DesignQueue:  0    0    0   11   13    0    4   13    1    0    0    0
*******************************************************************************


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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                            AM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #46 Durant Avenue / Telegraph Avenue
*******************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.370
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    12.0
Optimal Cycle:       43          Level Of Service:                   B
*******************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   18   18    0    0    0   17   17    0    0    0    0
Lanes:        0    0    1 1  0    0    0    0 0  0    1    2    0 0  0    0    0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0  362   86    0    0    0   73  387    0    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  362   86    0    0    0   73  387    0    0    0    0
Added Vol:    0    7   24    0    0    0   17  140    0    0    0    0
Future:       0  110   40    0    0    0    0  130    0    0    0    0
Initial Fut:  0  479  150    0    0    0   90  657    0    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  479  150    0    0    0   90  657    0    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  479  150    0    0    0   90  657    0    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  479  150    0    0    0   90  657    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 1.00
Lanes:      0.00 1.52 0.48 0.00 0.00 0.00 0.36 2.64 0.00 0.00 0.00 0.00
Final Sat.:   0 2650  830    0    0    0  625 4562    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.18 0.18 0.00 0.00 0.00 0.14 0.14 0.00 0.00 0.00 0.00
Crit Moves:      ****                      ****
Green/Cycle: 0.00 0.49 0.49 0.00 0.00 0.00 0.39 0.39 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.37 0.37 0.00 0.00 0.00 0.37 0.37 0.00 0.00 0.00 0.00
Delay/Veh:   0.0  8.8  8.8  0.0  0.0  0.0 14.7 14.7  0.0  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  8.8  8.8  0.0  0.0  0.0 14.7 14.7  0.0  0.0  0.0  0.0
DesignQueue:  0    9    3    0    0    0    2   15    0    0    0    0
*******************************************************************************


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UC Berkeley LRDP EIR
2020 With Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #47 Durant Avenue / College Avenue
****
Cycle (sec):   65   Critical Vol./Cap. (X):   0.440
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   13.6
Optimal Cycle: 42   Level Of Service: B
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 0   18   18   0   0   0   16   16   16   0   0   0
Lanes: 0 0 0 1 0   0 1 0 0 0   1 0 1 1 0   0 0 0 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 0   213   66   13   23   0   64 228   87   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   213   66   13   23   0   64 228   87   0   0   0
Added Vol: 0   29   31   0   1   0   128   39   2   0   0   0
Future: 0   10   90   0   20   0   20   90   40   0   0   0
Initial Fut: 0   252 187   13   44   0   212 357 129   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0   252 187   13   44   0   212 357 129   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0   252 187   13   44   0   212 357 129   0   0   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0   252 187   13   44   0   212 357 129   0   0   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.94 0.94 0.92 0.92 1.00 0.96 0.91 0.91 1.00 1.00 1.00
Lanes: 0.00 0.57 0.43 0.23 0.77 0.00 1.00 1.47 0.53 0.00 0.00 0.00
Final Sat.:   0 1027 762   397 1342   0 1824 2546 920   0   0   0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.25 0.03 0.03 0.00 0.12 0.14 0.14 0.00 0.00 0.00
Crit Moves: ****   ****
Green/Cycle:0.00 0.56 0.56 0.56 0.56 0.00 0.32 0.32 0.32 0.00 0.00 0.00
Volume/Cap: 0.00 0.44 0.44 0.06 0.06 0.00 0.36 0.44 0.44 0.00 0.00 0.00
Delay/Veh: 0.0 7.0 7.0   6.7 6.7 0.0 18.3 18.3 18.3   0.0 0.0 0.0
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 7.0 7.0   6.7 6.7 0.0 18.3 18.3 18.3   0.0 0.0 0.0
DesignQueue: 0   4   3   0   1   0   5   9   3   0   0   0
****

UC Berkeley LRDP EIR
2020 With Project Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)
****
Intersection #48 Durant Avenue / Piedmont Avenue
****
Cycle (sec):   100   Critical Vol./Cap. (X):   1.111
Loss Time (sec):   0 (Y+R = 4 sec) Average Delay (sec/veh):   53.0
Optimal Cycle: 0   Level Of Service: F
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Stop Sign   Stop Sign   Stop Sign   Stop Sign
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 0 0 1 0 0   0 0 1 0 0   1 0 0 0 1   0 0 0 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol: 0   489   0   0 345   0   158   0   86   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   489   0   0 345   0   158   0   86   0   0   0
Added Vol: 0   147   0   0   46   0   60   0   9   0   0   0
Future: 0   50   0   0   40   0   30   0   60   0   0   0
Initial Fut: 0   686   0   0 431   0   248   0 155   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0   686   0   0 431   0   248   0 155   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0   686   0   0 431   0   248   0 155   0   0   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0   686   0   0 431   0   248   0 155   0   0   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:   0   618   0   0 587   0   471   0 557   0   0   0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: xxxx 1.11 xxxx xxxx 0.73 xxxx 0.53 xxxx 0.28 xxxx xxxx xxxx
Crit Moves: ****   ****   ****
Delay/Veh: 0.0 93.2 0.0   0.0 23.8 0.0 18.2 0.0 11.5   0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 93.2 0.0   0.0 23.8 0.0 18.2 0.0 11.5   0.0 0.0 0.0
LOS by Move: *   F   *   *   C   *   C   *   B   *   *   *

ApproachDel: 93.2   23.8   15.6   xxxxxx
Delay Adj: 1.00   1.00   1.00   xxxxx
ApprAdjDel: 93.2   23.8   15.6   xxxxxx
LOS by Appr: F   C   C   *
****

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #49 Channing Way / Shattuck Avenue
********************************************************************************
Cycle (sec):          65        Critical Vol./Cap. (X):         0.652
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):    7.2
Optimal Cycle:        46        Level Of Service:                 A
********************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:   16   16   16     16   16   16     22   22   22     22   22   22
Lanes:        1  0  1  1  0    1  0  1  1  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     42 1070   96     19  868   19     12   59   42     62   28   39
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  42 1070   96     19  868   19     12   59   42     62   28   39
Added Vol:     0  216   44      0   31    0      0    0    0      3    0    3
Future:       20  130   20     40   90   70     30   40   20     30   10   10
Initial Fut:  62 1416  160     59  989   89     42   99   62     95   38   52
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:   62 1416  160     59  989   89     42   99   62     95   38   52
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  62 1416  160     59  989   89     42   99   62     95   38   52
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   62 1416  160     59  989   89     42   99   62     95   38   52
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.26 0.94 0.94   0.12 0.94 0.94   0.88 0.88 0.88   0.76 0.76 0.76
Lanes:      1.00 1.80 0.20   1.00 1.83 0.17   0.21 0.49 0.30   0.51 0.21 0.28
Final Sat.:  498 3195  361    224 3272  294    345  812  509    741  296  405
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.12 0.44 0.44   0.26 0.30 0.30   0.12 0.12 0.12   0.13 0.13 0.13
Crit Moves:       ****                                              ****
Green/Cycle: 0.54 0.54 0.54  0.54 0.54 0.54   0.34 0.34 0.34   0.34 0.34 0.34
Volume/Cap: 0.23 0.82 0.82   0.49 0.56 0.56   0.36 0.36 0.36   0.38 0.38 0.38
Delay/Veh:   3.8  6.9  6.9   15.6  3.4  3.4   18.0 18.0 18.0   18.5 18.5 18.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  3.8  6.9  6.9   15.6  3.4  3.4   18.0 18.0 18.0   18.5 18.5 18.5
DesignQueue:   1   26    3      1   18    2      1    2    2      2    1    1
********************************************************************************
```

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #50 Channing Way / Fulton Street
********************************************************************************
Cycle (sec):         100        Critical Vol./Cap. (X):         0.604
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):   14.7
Optimal Cycle:         0        Level Of Service:                 B
********************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:    0    0    0      0    0    0      0    0    0      0    0    0
Lanes:        0  0  0  0  0    0  1  0  1  0    0  0  0  1  0    0  1  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0     86  543   51      0  132   20      7   72    0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   0    0    0     86  543   51      0  132   20      7   72    0
Added Vol:     0    0    0     32    2    0      0   44    0      0    6    0
Future:        0    0    0      0   30    0      0   90    0     10   40    0
Initial Fut:   0    0    0    118  575   51      0  266   20     17  118    0
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    0    0    0    118  575   51      0  266   20     17  118    0
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   0    0    0    118  575   51      0  266   20     17  118    0
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    0    0    0    118  575   51      0  266   20     17  118    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:      0.00 0.00 0.00   0.32 1.54 0.14   0.00 0.93 0.07   0.13 0.87 0.00
Final Sat.:    0    0    0    195  975   88      0  579   44     73  509    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx xxxx xxxx   0.60 0.59 0.58   xxxx 0.46 0.46   0.23 0.23  xxxx
Crit Moves:                        ****             ****            ****
Delay/Veh:   0.0  0.0  0.0   16.7 15.9 15.3    0.0 13.1 13.1   10.6 10.6   0.0
Delay Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0   16.7 15.9 15.3    0.0 13.1 13.1   10.6 10.6   0.0
LOS by Move:  *    *    *      C    C    C      *    B    B      B    B     *
ApproachDel:    xxxxxx              16.0             13.1            10.6
Delay Adj:       xxxxx              1.00             1.00            1.00
ApprAdjDel:     xxxxxx              16.0             13.1            10.6

LOS by Appr:       *                 C                B               B
********************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                              AM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #51 Channing Way / Telegraph Avenue
*******************************************************************************
Cycle (sec):         65           Critical Vol./Cap. (X):          0.491
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      11.9
Optimal Cycle:       43           Level Of Service:                    B
*******************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:  18   18   18    0    0    0    17   17    0    0   17   17
Lanes:        0    1    0 1  0    0    0  0 0    0    1    0 0  0    0    0  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00-9:00 AM (WB thru adjusted due
Base Vol:    56   423   79    0    0    0   16  179    0    0   98    9
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 56   423   79    0    0    0   16  179    0    0   98    9
Added Vol:    0    30   68    0    0    0    0   76    0    0    6    0
Future:      10    40   30    0    0    0   60   30    0    0   30   50
Initial Fut: 66   493  177    0    0    0   76  285    0    0  134   59
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  66   493  177    0    0    0   76  285    0    0  134   59
Reduct Vol:   0     0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 66   493  177    0    0    0   76  285    0    0  134   59
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  66   493  177    0    0    0   76  285    0    0  134   59
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.88 0.88 0.88 1.00 1.00 1.00 0.90 0.90 1.00 1.00 0.96 0.96
Lanes:      0.18 1.34 0.48 0.00 0.00 0.00 0.21 0.79 0.00 0.00 0.69 0.31
Final Sat.:  301 2247  807    0    0    0  360 1349    0    0 1265  557
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.22 0.22 0.22 0.00 0.00 0.00 0.21 0.21 0.00 0.00 0.11 0.11
Crit Moves:      ****                          ****
Green/Cycle: 0.45 0.45 0.45 0.00 0.00 0.00 0.43 0.43 0.00 0.00 0.43 0.43
Volume/Cap: 0.49 0.49 0.49 0.00 0.00 0.00 0.49 0.49 0.00 0.00 0.25 0.25
Delay/Veh:  11.0 11.0 11.0  0.0  0.0  0.0 13.9 13.9  0.0  0.0 12.0 12.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.0 11.0 11.0  0.0  0.0  0.0 13.9 13.9  0.0  0.0 12.0 12.0
DesignQueue:  1   10    4    0    0    0    2    6    0    0    3    1
*******************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                              AM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #52 Channing Way / College Avenue
*******************************************************************************
Cycle (sec):         65           Critical Vol./Cap. (X):          0.613
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      21.5
Optimal Cycle:       43           Level Of Service:                    C
*******************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:  18   18   18   18   18   18    0    0    0   17   17   17
Lanes:        0    0    1! 0  0    0    1! 0  0    0    1! 0  0    0    1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM (WB thru, NB righ
Base Vol:    26   256   22    6   92    2   21   76   31   88  150   43
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 26   256   22    6   92    2   21   76   31   88  150   43
Added Vol:   25    59   -4    0    3    0    0    9    2    0   77    0
Future:      20    50   20    0   60   10   10   40   30   70   40   30
Initial Fut: 71   365   38    6  155   12   31  125   63  158  267   73
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  71   365   38    6  155   12   31  125   63  158  267   73
Reduct Vol:   0     0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 71   365   38    6  155   12   31  125   63  158  267   73
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  71   365   38    6  155   12   31  125   63  158  267   73
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.99 0.99 0.99 0.96 0.96 0.96 0.98 0.98 0.98
Lanes:      0.15 0.77 0.08 0.03 0.90 0.07 0.14 0.57 0.29 0.32 0.53 0.15
Final Sat.:  263 1350  141   65 1687  131  258 1042  525  591  998  273
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.27 0.27 0.27 0.09 0.09 0.09 0.12 0.12 0.12 0.27 0.27 0.27
Crit Moves:      ****                                         ****
Green/Cycle: 0.58 0.58 0.58 0.58 0.58 0.58 0.30 0.30 0.30 0.30 0.30 0.30
Volume/Cap: 0.47 0.47 0.47 0.16 0.16 0.16 0.40 0.40 0.40 0.90 0.90 0.90
Delay/Veh:   6.4  6.4  6.4  4.2  4.2  4.2 20.5 20.5 20.5 42.2 42.2 42.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  6.4  6.4  6.4  4.2  4.2  4.2 20.5 20.5 20.5 42.2 42.2 42.2
DesignQueue:  1    6    1    0    2    0    1    3    2    4    7    2
*******************************************************************************
```

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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:36:09          Page 61-1      CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:36:09          Page 62-1
-----------------------------------------------------------------------      -----------------------------------------------------------------------
                        UC Berkeley LRDP EIR                                                         UC Berkeley LRDP EIR
                    2020 With Project Conditions                                                 2020 With Project Conditions
                           AM Peak Hour                                                                 AM Peak Hour
-----------------------------------------------------------------------      -----------------------------------------------------------------------
                  Level Of Service Computation Report                                          Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)                       2000 HCM Operations Method (Future Volume Alternative)
************************************************************************       ************************************************************************
Intersection #53 Haste Street / Shattuck Avenue                              Intersection #54 Haste Street / Fulton Street
************************************************************************       ************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):     0.709         Cycle (sec):          80          Critical Vol./Cap. (X):     0.379
Loss Time (sec):       8 (Y+R =  6 sec) Average Delay (sec/veh):   44.4     Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):   15.2
Optimal Cycle:        47          Level Of Service:               D         Optimal Cycle:        53          Level Of Service:               B
************************************************************************       ************************************************************************
Approach:       North Bound    South Bound     East Bound     West Bound    Approach:       North Bound    South Bound     East Bound     West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R  Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted       Permitted      Permitted    Control:       Permitted        Permitted       Permitted      Permitted
Rights:         Include          Include         Include        Include      Rights:         Include          Include         Include        Include
Min. Green:  21  21   0    0  21  21    0   0   0   18  18  18  Min. Green:   0   0   0    0  25  25    0   0   0   20  20   0
Lanes:        1   0   2   0    0   0   1   1   0    0   0   0   0    0   1   0   1   0  Lanes:    0   0   0   0    0   0   1   1   0    0   0   0   0    0   1   1   0   0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM               Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     66 1117   0    0 903  46    0   0   0  185 276  75  Base Vol:    0   0   0    0 433 145    0   0   0   23 380   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  66 1117   0    0 903  46    0   0   0  185 276  75  Initial Bse:  0   0   0    0 433 145    0   0   0   23 380   0
Added Vol:     0 260    0    0  29   5    0   0   0    4   8   0  Added Vol:    0   0   0    0   1   1    0   0   0    0  12   0
Future:       10 130    0    0 110  20    0   0   0   30 110  20  Future:       0   0   0    0  50  20    0   0   0    0 140   0
Initial Fut:  76 1507   0    0 1042 71    0   0   0  219 394  95  Initial Fut:  0   0   0    0 484 166    0   0   0   23 532   0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   76 1507   0    0 1042 71    0   0   0  219 394  95  PHF Volume:   0   0   0    0 484 166    0   0   0   23 532   0
Reduct Vol:    0   0   0    0   0   0    0   0   0    0   0   0  Reduct Vol:    0   0   0    0   0   0    0   0   0    0   0   0
Reduced Vol:  76 1507   0    0 1042 71    0   0   0  219 394  95  Reduced Vol:  0   0   0    0 484 166    0   0   0   23 532   0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   76 1507   0    0 1042 71    0   0   0  219 394  95  Final Vol.:   0   0   0    0 484 166    0   0   0   23 532   0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:                                                      Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900     Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.17 0.95 1.00 1.00 0.94 0.94 1.00 1.00 1.00 0.91 0.91 0.91     Adjustment: 1.00 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 0.95 0.95 1.00
Lanes:      1.00 2.00 0.00 0.00 1.87 0.13 0.00 0.00 0.00 0.62 1.11 0.27     Lanes:      0.00 0.00 0.00 0.00 1.49 0.51 0.00 0.00 0.00 0.08 1.92 0.00
Final Sat.:  315 3610   0    0 3346 228    0   0   0 1072 1929 465  Final Sat.:   0   0   0    0 2586 887    0   0   0  150 3460   0
-----------|--------------||--------------||--------------||--------------|  -----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:                                                    Capacity Analysis Module:
Vol/Sat:    0.24 0.42 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.20 0.20 0.20     Vol/Sat:    0.00 0.00 0.00 0.00 0.19 0.19 0.00 0.00 0.00 0.15 0.15 0.00
Crit Moves:       ****                              ****                     Crit Moves:                      ****                      ****
Green/Cycle: 0.37 0.37 0.00 0.00 0.37 0.37 0.00 0.00 0.00 0.51 0.51 0.51     Green/Cycle: 0.00 0.00 0.00 0.00 0.49 0.49 0.00 0.00 0.00 0.41 0.41 0.00
Volume/Cap: 0.65 1.13 0.00 0.00 0.84 0.84 0.00 0.00 0.00 0.40 0.40 0.40     Volume/Cap: 0.00 0.00 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.38 0.38 0.00
Delay/Veh:  35.2 80.3  0.0  0.0 18.0 18.0  0.0  0.0  0.0 10.6 10.6 10.6     Delay/Veh:   0.0  0.0  0.0  0.0 13.2 13.2  0.0  0.0  0.0 17.4 17.4  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00     User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 35.2 80.3  0.0  0.0 18.0 18.0  0.0  0.0  0.0 10.6 10.6 10.6     AdjDel/Veh:  0.0  0.0  0.0  0.0 13.2 13.2  0.0  0.0  0.0 17.4 17.4  0.0
DesignQueue:   2  38   0    0  26   2    0   0   0    4   7   2  DesignQueue:   0   0   0    0  11   4    0   0   0    1  15   0
************************************************************************       ************************************************************************


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                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #55 Haste Street / Telegraph Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):       0.447
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      16.9
Optimal Cycle:       40          Level Of Service:                 B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  16   16    0     0    0    0     0    0    0     0   16   16
Lanes:        0    1    1  0   0    0    0  0   0    0    0  0   0    0    1    1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    216  520    0     0    0    0     0    0    0     0  334   34
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 216  520    0     0    0    0     0    0    0     0  334   34
Added Vol:     0   98    0     0    0    0     0    0    0     0   12    0
Future:       20   50    0     0    0    0     0    0    0     0   90   30
Initial Fut: 236  668    0     0    0    0     0    0    0     0  436   64
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  236  668    0     0    0    0     0    0    0     0  436   64
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 236  668    0     0    0    0     0    0    0     0  436   64
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  236  668    0     0    0    0     0    0    0     0  436   64
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.95 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.93 0.93
Lanes:      0.52 1.48 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 1.74 0.26
Final Sat.:  942 2668    0     0    0    0     0    0    0     0 3088  453
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.25 0.25 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 0.14 0.14
Crit Moves:      ****                                            ****
Green/Cycle: 0.34 0.34 0.34  0.00 0.00 0.00  0.00 0.00 0.00  0.53 0.53 0.53
Volume/Cap: 0.73 0.73 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 0.26 0.26
Delay/Veh:  21.6 21.6  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  8.6  8.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 21.6 21.6  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  8.6  8.6
DesignQueue:   6   17    0     0    0    0     0    0    0     0    8    1
********************************************************************************
```

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                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            AM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #56 Haste Street / College Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):       0.616
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      11.2
Optimal Cycle:       40          Level Of Service:                 B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  16   16    0     0   16   16     0    0    0    16   16   16
Lanes:        0    1    0  0   0    0    0  1   0   0    0    0  0   0    1    0    1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    167  267    0     0  115   69     0    0    0    48  223   21
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 167  267    0     0  115   69     0    0    0    48  223   21
Added Vol:    19   80    0     0    5    0     0    0    0     0   12    0
Future:       30   40    0     0   90   60     0    0    0    30   30   40
Initial Fut: 216  387    0     0  210  129     0    0    0    78  265   61
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  216  387    0     0  210  129     0    0    0    78  265   61
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 216  387    0     0  210  129     0    0    0    78  265   61
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  216  387    0     0  210  129     0    0    0    78  265   61
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.75 0.75 1.00  1.00 0.95 0.95  1.00 1.00 1.00  0.91 0.91 0.91
Lanes:      0.36 0.64 0.00  0.00 0.62 0.38  0.00 0.00 0.00  0.39 1.31 0.30
Final Sat.:  510  915    0     0 1117  686     0    0    0   665 2260  520
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.42 0.42 0.00  0.00 0.19 0.19  0.00 0.00 0.00  0.12 0.12 0.12
Crit Moves:      ****                                            ****
Green/Cycle: 0.63 0.63 0.00  0.00 0.63 0.63  0.00 0.00 0.00  0.25 0.25 0.25
Volume/Cap: 0.67 0.67 0.00  0.00 0.30 0.30  0.00 0.00 0.00  0.48 0.48 0.48
Delay/Veh:   7.8  7.8  0.0   0.0  3.4  3.4   0.0  0.0  0.0  22.8 22.8 22.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  7.8  7.8  0.0   0.0  3.4  3.4   0.0  0.0  0.0  22.8 22.8 22.8
DesignQueue:   3    6    0     0    3    2     0    0    0     2    7    2
********************************************************************************
```

```
                       UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          AM Peak Hour
----------------------------------------------------------------------
                  Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
**********************************************************************
Intersection #57 Dwight Way / Martin Luther King Way
**********************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):      0.876
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):   22.2
Optimal Cycle:       83          Level Of Service:               C
**********************************************************************
Approach:      North Bound     South Bound     East Bound     West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  18   18   18    18   18   18    21   21   21     0    0    0
Lanes:        0    1    0 1    0    1    0 1    0    1    0 1    0    0    0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     62  690   66    88  868  163    68  419   83     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  62  690   66    88  868  163    68  419   83     0    0    0
Added Vol:     3    9    0     0   15   10     0  114   19     0    0    0
Future:       20   30   10    10  200   50    10   50   10     0    0    0
Initial Fut:  85  729   76    98 1083  223    78  583  112     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   85  729   76    98 1083  223    78  583  112     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  85  729   76    98 1083  223    78  583  112     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   85  729   76    98 1083  223    78  583  112     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.60 0.60 0.60  0.74 0.74 0.74  0.91 0.91 0.91  1.00 1.00 1.00
Lanes:      0.19 1.64 0.17  0.14 1.54 0.32  0.20 1.51 0.29  0.00 0.00 0.00
Final Sat.:  218 1874  195   195 2158  444   348 2604  500     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.39 0.39 0.39  0.50 0.50 0.50  0.22 0.22 0.22  0.00 0.00 0.00
Crit Moves:                 ****            ****
Green/Cycle: 0.53 0.53 0.53  0.53 0.53 0.53  0.30 0.30 0.30  0.00 0.00 0.00
Volume/Cap: 0.74 0.74 0.74  0.95 0.95 0.95  0.75 0.75 0.75  0.00 0.00 0.00
Delay/Veh:  13.2 13.2 13.2  25.4 25.4 25.4  27.0 27.0 27.0   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 13.2 13.2 13.2  25.4 25.4 25.4  27.0 27.0 27.0   0.0  0.0  0.0
DesignQueue:   2   14    1     2   22    5     2   17    3     0    0    0
**********************************************************************
```

```
                       UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          AM Peak Hour
----------------------------------------------------------------------
                  Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
**********************************************************************
Intersection #58 Dwight Way / Shattuck Avenue
**********************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):      0.919
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):   16.7
Optimal Cycle:       91          Level Of Service:               B
**********************************************************************
Approach:      North Bound     South Bound     East Bound     West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted      Prot+Permit      Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0    0    1 1    0    1    0 1    1    0    1 0    1    0    0    0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0 1094  113    95  989    0    66  420  151     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0 1094  113    95  989    0    66  420  151     0    0    0
Added Vol:     0  222    0     2   31    0    38   76    0     0    0    0
Future:        0  130   30    10  110    0    20   50   10     0    0    0
Initial Fut:   0 1446  143   107 1130    0   124  546  161     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0 1446  143   107 1130    0   124  546  161     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0 1446  143   107 1130    0   124  546  161     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0 1446  143   107 1130    0   124  546  161     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.94 0.94  0.22 0.95  0.95  0.90 0.90 0.90  1.00 1.00 1.00
Lanes:      0.00 1.82 0.18  1.00 2.00 0.00  0.30 1.31 0.39  0.00 0.00 0.00
Final Sat.:    0 3242  321   424 3610    0   508 2236  659     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.45 0.45  0.25 0.31 0.00  0.24 0.24 0.24  0.00 0.00 0.00
Crit Moves:       ****            ****                  ****
Green/Cycle: 0.00 0.49 0.49  0.55 0.55 0.00  0.27 0.27 0.27  0.00 0.00 0.00
Volume/Cap: 0.00 0.92 0.92  0.46 0.57 0.00  0.92 0.92 0.92  0.00 0.00 0.00
Delay/Veh:   0.0 15.2 15.2  10.5  3.0  0.0  39.0 39.0 39.0   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 15.2 15.2  10.5  3.0  0.0  39.0 39.0 39.0   0.0  0.0  0.0
DesignQueue:   0   30    3     4   20    0     3   15    5     0    0    0
**********************************************************************
```

```
                            UC Berkeley LRDP EIR
                         2020 With Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
                2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #59 Dwight Way / Fulton Street
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):          0.493
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    13.7
Optimal Cycle:       45          Level Of Service:                   B
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0    0   21    21    0    0     0   16   16     0    0    0
Lanes:        0  0  0  0  1    2  0  0  0  0    0  0  1  1  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0   12   449    0    0     0  620    6     0    0    0
Growth Adj:  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0   12   449    0    0     0  620    6     0    0    0
Added Vol:     0    0    0     1    0    0     0   78    0     0    0    0
Future:        0    0   10    30    0    0     0   70   30     0    0    0
Initial Fut:   0    0   22   480    0    0     0  768   36     0    0    0
User Adj:    1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0   22   480    0    0     0  768   36     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0   22   480    0    0     0  768   36     0    0    0
PCE Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0   22   480    0    0     0  768   36     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 1.00  0.87  0.59 1.00 1.00  1.00 0.94 0.94  1.00 1.00 1.00
Lanes:       0.00 0.00  1.00  2.00 0.00 0.00  0.00 1.91 0.09  0.00 0.00 0.00
Final Sat.:    0    0 1644  2260    0    0     0 3424  161     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.01  0.21 0.00 0.00  0.00 0.22 0.22  0.00 0.00 0.00
Crit Moves:                  ****                 ****
Green/Cycle: 0.00 0.00  0.43  0.43 0.00 0.00  0.00 0.45 0.45  0.00 0.00 0.00
Volume/Cap:  0.00 0.00  0.03  0.49 0.00 0.00  0.00 0.49 0.49  0.00 0.00 0.00
Delay/Veh:    0.0  0.0  11.6  16.2  0.0  0.0   0.0 12.2 12.2   0.0  0.0  0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0  0.0  11.6  16.2  0.0  0.0   0.0 12.2 12.2   0.0  0.0  0.0
DesignQueue:   0    0    0    11    0    0     0   17    1     0    0    0
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                         2020 With Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
                2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #60 Dwight Way / Telegraph Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          0.757
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    18.1
Optimal Cycle:       51          Level Of Service:                   B
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0   15   15     0    0    0    17   17   17     0    0    0
Lanes:        0  0  1  1  0    0  0  0  0  0    0  1  0  1  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  697   78     0    0    0    66  479  565     0    0    0
Growth Adj:  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0  697   78     0    0    0    66  479  565     0    0    0
Added Vol:     0   30    0     0    0    0    68   12    3     0    0    0
Future:        0   60   10     0    0    0    10   60   40     0    0    0
Initial Fut:   0  787   88     0    0    0   144  551  608     0    0    0
User Adj:    1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0  787   88     0    0    0   144  551  608     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0  787   88     0    0    0   144  551  608     0    0    0
PCE Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0  787   88     0    0    0   144  551  608     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 0.94  0.94  1.00 1.00 1.00  0.82 0.82 0.82  1.00 1.00 1.00
Lanes:       0.00 1.80  0.20  0.00 0.00 0.00  0.22 0.85 0.93  0.00 0.00 0.00
Final Sat.:    0 3198  358     0    0    0   345 1320 1457     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.25  0.25  0.00 0.00 0.00  0.42 0.42 0.42  0.00 0.00 0.00
Crit Moves:       ****                             ****
Green/Cycle: 0.00 0.33  0.33  0.00 0.00 0.00  0.55 0.55 0.55  0.00 0.00 0.00
Volume/Cap:  0.00 0.76  0.76  0.00 0.00 0.00  0.76 0.76 0.76  0.00 0.00 0.00
Delay/Veh:    0.0 23.6  23.6   0.0  0.0  0.0  14.4 14.4 14.4   0.0  0.0  0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 23.6  23.6   0.0  0.0  0.0  14.4 14.4 14.4   0.0  0.0  0.0
DesignQueue:   0   20    2     0    0    0     3   10   11     0    0    0
********************************************************************************
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                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          AM Peak Hour
--------------------------------------------------------------------------------
                 Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #61 Dwight Way / College Avenue
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.556
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   12.4
Optimal Cycle:       39          Level Of Service:                  B
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0   16   16    16   16    0    15   15   15     0    0    0
Lanes:        0   0   0 1 0   0 1 0 0 0    0 1 0 1 0    0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     0  365   51    10  150    0    68  352   85     0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  365   51    10  150    0    68  352   85     0    0    0
Added Vol:    0   91    0     0    5    0     7    4    0     0    0    0
Future:       0   50   10    20   90    0    20   20   10     0    0    0
Initial Fut:  0  506   61    30  245    0    95  376   95     0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
PHF Volume:   0  527   64    31  255    0    99  392   99     0    0    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0  527   64    31  255    0    99  392   99     0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  527   64    31  255    0    99  392   99     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.99 0.99 0.92 0.92 1.00 0.90 0.90 0.90 1.00 1.00 1.00
Lanes:      0.00 0.89 0.11 0.11 0.89 0.00 0.34 1.33 0.33 0.00 0.00 0.00
Final Sat.:   0 1670  201   191 1561    0   576 2280  576     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.32 0.32 0.16 0.16 0.00 0.17 0.17 0.17 0.00 0.00 0.00
Crit Moves:      ****                          ****
Green/Cycle: 0.00 0.57 0.57 0.57 0.57 0.00 0.31 0.31 0.31 0.00 0.00 0.00
Volume/Cap: 0.00 0.56 0.56 0.29 0.29 0.00 0.56 0.56 0.56 0.00 0.00 0.00
Delay/Veh:   0.0  7.8  7.8  5.4  5.4  0.0 20.4 20.4 20.4  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  7.8  7.8  5.4  5.4  0.0 20.4 20.4 20.4  0.0  0.0  0.0
DesignQueue:  0    9    1     1    4    0     3   10    3     0    0    0
********************************************************************************
```

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                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          AM Peak Hour
--------------------------------------------------------------------------------
                 Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #62 Dwight Way / Piedmont Avenue / Warring Street
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.462
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   10.9
Optimal Cycle:       61          Level Of Service:                  B
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0   22    0    29   29    0    24   24   24    24    0   24
Lanes:        0   0   1 1 0   0 1 1 0 0    1 0 1 0 1    0 0 1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: 7:00 AM - 9:00 AM
Base Vol:     0  583    0     8  324    0    91  143  238    42    0   48
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  583    0     8  324    0    91  143  238    42    0   48
Added Vol:    0  193    0     0   18    0     1    0    3     0    0    0
Future:       0   70   10    10   40    0    10   10   30    10    0   10
Initial Fut:  0  846   10    18  382    0   102  153  271    52    0   58
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  846   10    18  382    0   102  153  271    52    0   58
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0  846   10    18  382    0   102  153  271    52    0   58
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  846   10    18  382    0   102  153  271    52    0   58
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.95 0.87 0.87 1.00 0.71 1.00 0.85 0.77 1.00 0.77
Lanes:      0.00 1.98 0.02 0.09 1.91 0.00 0.47 1.00 0.00 0.47 0.00 0.53
Final Sat.:   0 3561   42   148 3144    0  1351 1900 1615   696    0  776
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.24 0.24 0.12 0.12 0.00 0.08 0.08 0.17 0.07 0.00 0.07
Crit Moves:      ****                          ****
Green/Cycle: 0.00 0.51 0.51 0.51 0.51 0.00 0.37 0.37 0.37 0.37 0.00 0.37
Volume/Cap: 0.00 0.47 0.47 0.24 0.24 0.00 0.20 0.22 0.45 0.20 0.00 0.20
Delay/Veh:   0.0  8.7  8.7  7.1  7.1  0.0 14.9 14.8 18.0 14.8  0.0 14.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  8.7  8.7  7.1  7.1  0.0 14.9 14.8 18.0 14.8  0.0 14.8
DesignQueue:  0   16    0     0    7    0     2    4    6     1    0    1
********************************************************************************
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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #63 Dwight Avenue / Prospect Street
********************************************************************************
Average Delay (sec/veh):      5.8        Worst Case Level Of Service:      B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:      0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0   14    0  109  246   72    0    0   53   15
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0   14    0  109  246   72    0    0   53   15
Added Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Future:        0    0    0    0    0   20   30    0    0    0   20    0
Initial Fut:   0    0    0   14    0  129  276   72    0    0   73   15
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0    0    0   14    0  129  276   72    0    0   73   15
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:    0    0    0   14    0  129  276   72    0    0   73   15
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx  6.2  4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  705 xxxx   81   88 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  406 xxxx  985 1520 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  339 xxxx  985 1520 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  7.9 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *    *     *    *    *     A    *    *     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  830 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 10.2 xxxxx  7.9 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *    *     *    B    *     A    *    *     *    *    *
ApproachDel:    xxxxxx            10.2            xxxxxx           xxxxxx
ApproachLOS:       *               B                *                *
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             AM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #64 Adeline Street / Ward Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):           65        Critical Vol./Cap. (X):        0.899
Loss Time (sec):        8 (Y+R =  6 sec) Average Delay (sec/veh):  20.3
Optimal Cycle:         81        Level Of Service:                C
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted       Protected        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  0   25   25    0   25   25   19    0   19    0    0    0
Lanes:      0  0  0  1  0    0  0  2  0  1    2  0  0  0  1    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  784    3    0  736  546  723    0    4    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0  784    3    0  736  546  723    0    4    0    0    0
Added Vol:     0  184    0    0   22    7   56    0    0    0    0    0
Future:        0   50    0    0   40   70  100    0    0    0    0    0
Initial Fut:   0 1018    3    0  798  623  879    0    4    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0 1018    3    0  798  623  879    0    4    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0 1018    3    0  798  623  879    0    4    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0 1018    3    0  798  623  879    0    4    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.95 0.85 0.92 1.00 0.85 1.00 1.00 1.00
Lanes:      0.00 0.99 0.01 0.00 2.00 1.00 2.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:    0 1894    6    0 3610 1615 3502    0 1615    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.54 0.54 0.00 0.22 0.39 0.25 0.00 0.00 0.00 0.00 0.00
Crit Moves:      ****                       ****
Green/Cycle: 0.00 0.58 0.58 0.00 0.58 0.58 0.29 0.00 0.29 0.00 0.00 0.00
Volume/Cap: 0.00 0.92 0.92 0.00 0.38 0.66 0.86 0.00 0.01 0.00 0.00 0.00
Delay/Veh:   0.0 25.6 25.6  0.0  7.7 12.7 31.1  0.0 16.4  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 25.6 25.6  0.0  7.7 12.7 31.1  0.0 16.4  0.0  0.0  0.0
DesignQueue:   0   18    0    0   13   10   24    0    0    0    0    0
********************************************************************************
```

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```
                       UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          AM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
**************************************************************************
Intersection #65 Derby Street / Warring Street
**************************************************************************
Cycle (sec):         100        Critical Vol./Cap. (X):       1.602
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    238.0
Optimal Cycle:         0        Level Of Service:                F
**************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign       Stop Sign       Stop Sign       Stop Sign
Rights:          Include         Include         Include         Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0  0  0  0  0   0  0  1! 0  0   0  1  0  0  0   0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     0    0    0   650    0   31    14   20    0     0   34  779
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0    0    0   650    0   31    14   20    0     0   34  779
Added Vol:    0    0    0    20    0    0     0    0    0     0    0  193
Future:       0    0    0    90    0   10     0   10    0     0    0   90
Initial Fut:  0    0    0   760    0   41    14   30    0     0   34 1062
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0    0    0   760    0   41    14   30    0     0   34 1062
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0    0    0   760    0   41    14   30    0     0   34 1062
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0    0    0   760    0   41    14   30    0     0   34 1062
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.00 0.00 0.95 0.00 0.05  0.32 0.68 0.00  0.00 0.03 0.97
Final Sat.:   0    0    0   574    0   31   166  355    0     0   21  663
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   xxxx xxxx xxxx 1.32 xxxx 1.32  0.08 0.08 xxxx  xxxx 1.60 1.60
Crit Moves:                 ****            ****                      ****
Delay/Veh:   0.0  0.0  0.0 175.9  0.0 175.9 10.5 10.5  0.0   0.0 293 292.6
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 175.9  0.0 175.9 10.5 10.5  0.0   0.0 293 292.6
LOS by Move:  *    *    *    F    *    F     B    B    *     *    F    F
ApproachDel: xxxxxx        175.9           10.5            292.6
Delay Adj:    xxxxx         1.00            1.00             1.00
ApprAdjDel:  xxxxxx        175.9           10.5            292.6
LOS by Appr:   *             F               B               F
**************************************************************************
```

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```
                       UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          AM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #66 Derby Street / Claremont Blvd.
**************************************************************************
Cycle (sec):          65        Critical Vol./Cap. (X):       0.737
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):     30.1
Optimal Cycle:        61        Level Of Service:                C
**************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Split Phase     Split Phase      Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:  18    0   18     0    0    0     0   35   35    35   35    0
Lanes:        0  0  1! 0  0   0  0  0  0  0   0  0  0  1  0   0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     5    0   64     0    0    0     0  665   12    52  813    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  5    0   64     0    0    0     0  665   12    52  813    0
Added Vol:    0    0    0     0    0    0     0   20    0     0  193    0
Future:       0    0    0     0    0    0     0  100    0     0   90    0
Initial Fut:  5    0   64     0    0    0     0  785   12    52 1096    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   5    0   64     0    0    0     0  785   12    52 1096    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  5    0   64     0    0    0     0  785   12    52 1096    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   5    0   64     0    0    0     0  785   12    52 1096    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.87 1.00 0.87 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.07 0.00 0.93 0.00 0.00 0.00  0.00 0.98 0.02  0.05 0.95 0.00
Final Sat.: 120    0 1536     0    0    0     0 1868   29    86 1814    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.04 0.00 0.04 0.00 0.00 0.00  0.00 0.42 0.42  0.60 0.60 0.00
Crit Moves: ****                                                 ****
Green/Cycle: 0.28 0.00 0.28 0.00 0.00 0.00 0.00 0.60 0.60  0.60 0.60 0.00
Volume/Cap: 0.15 0.00 0.15 0.00 0.00 0.00  0.00 0.70 0.70  1.01 1.01 0.00
Delay/Veh:  18.3  0.0 18.3  0.0  0.0  0.0   0.0 12.8 12.8  42.9 42.9  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 18.3  0.0 18.3  0.0  0.0  0.0   0.0 12.8 12.8  42.9 42.9  0.0
DesignQueue:  0    0    2     0    0    0     0   13    0     1   19    0
**************************************************************************
```

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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #67 Ashby Avenue / Seventh Street
********************************************************************************
Cycle (sec):          95          Critical Vol./Cap. (X):        0.976
Loss Time (sec):      12 (Y+R =  4 sec) Average Delay (sec/veh):      53.9
Optimal Cycle:       155          Level Of Service:                  D
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Split Phase      Split Phase
Rights:          Include          Include          Include          Include
Min. Green:    4   19   19     4   19   19     4   22   22     4   20   20
Lanes:         0   1   0   1   0   0   1   0   1   0   1   0   1   1   0   1   0   1   1   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:     62   162    54    54   193   224   433   915   306   111   663    25
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  62   162    54    54   193   224   433   915   306   111   663    25
Added Vol:     0     0     0     0     0     0     0    95     0     0    12     0
Future:      100    70    20    60    20    30    50    60    40    50    60    30
Initial Fut: 162   232    74   114   213   254   483  1070   346   161   735    55
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:  162   232    74   114   213   254   483  1070   346   161   735    55
Reduct Vol:    0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol: 162   232    74   114   213   254   483  1070   346   161   735    55
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Final Vol.:  162   232    74   114   213   254   483  1070   346   161   735    55
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment: 0.55  0.55  0.55  0.85  0.85  0.85  0.95  0.91  0.91  0.95  0.94  0.94
Lanes:      0.69  0.99  0.32  0.39  0.73  0.88  1.00  1.51  0.49  1.00  1.86  0.14
Final Sat.:  721  1032   329   632  1180  1408  1805  2627   849  1805  3325   249
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.22  0.22  0.22  0.18  0.18  0.18  0.27  0.41  0.41  0.09  0.22  0.22
Crit Moves:       ****                               ****                  ****
Green/Cycle: 0.26  0.26  0.26  0.26  0.26  0.26  0.40  0.40  0.40  0.22  0.21  0.21
Volume/Cap: 0.86  0.86  0.86  0.69  0.69  0.69  0.67  1.02  1.02  0.41  1.07  1.07
Delay/Veh:  47.1  47.1  47.1  34.3  34.3  34.3  23.6  54.3  54.3  34.2  94.3  94.3
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh: 47.1  47.1  47.1  34.3  34.3  34.3  23.6  54.3  54.3  34.2  94.3  94.3
DesignQueue:   7     9     3     5     9    10    16    38    12     7    33     2
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                              AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #68 Ashby Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):        0.973
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):      42.2
Optimal Cycle:       163          Level Of Service:                  D
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    4   17   17     4   19   19    18   18   18    18   18   18
Lanes:         1   0   1   1   0   1   0   1   1   0   1   0   1   1   0   0   1   0   1   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 7:00-9:00 AM
Base Vol:    173   521    53   137   741   128    84   584   134    51   613   135
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse: 173   521    53   137   741   128    84   584   134    51   613   135
Added Vol:     2    20    57     0    28     2     0    80    14    30     8     0
Future:       20   220    20    20   320    30    20   120    10    20    80    50
Initial Fut: 195   761   130   157  1089   160   104   784   158   101   701   185
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:  195   761   130   157  1089   160   104   784   158   101   701   185
Reduct Vol:    0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol: 195   761   130   157  1089   160   104   784   158   101   701   185
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Final Vol.:  195   761   130   157  1089   160   104   784   158   101   701   185
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment: 0.95  0.93  0.93  0.95  0.93  0.93  0.16  0.93  0.93  0.60  0.60  0.60
Lanes:      1.00  1.71  0.29  1.00  1.74  0.26  1.00  1.66  0.34  0.20  1.43  0.37
Final Sat.: 1805  3015   515  1805  3088   454   300  2929   590   233  1615   426
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.11  0.25  0.25  0.09  0.35  0.35  0.35  0.27  0.27  0.43  0.43  0.43
Crit Moves: ****              ****                               ****
Green/Cycle: 0.11  0.35  0.35  0.12  0.36  0.36  0.45  0.45  0.45  0.45  0.45  0.45
Volume/Cap: 0.97  0.72  0.72  0.72  0.97  0.97  0.78  0.60  0.60  0.97  0.97  0.97
Delay/Veh:  99.7  30.1  30.1  53.0  50.2  50.2  47.7  21.6  21.6  48.9  48.9  48.9
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh: 99.7  30.1  30.1  53.0  50.2  50.2  47.7  21.6  21.6  48.9  48.9  48.9
DesignQueue:  10    29     5     8    42     6     3    26     5     3    23     6
********************************************************************************
```

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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:36:09        Page 77-1          CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:36:09        Page 78-1
--------------------------------------------------------------------------     --------------------------------------------------------------------------
                        UC Berkeley LRDP EIR                                                           UC Berkeley LRDP EIR
                    2020 With Project Conditions                                                   2020 With Project Conditions
                          AM Peak Hour                                                                   AM Peak Hour
--------------------------------------------------------------------------     --------------------------------------------------------------------------
                 Level Of Service Computation Report                                            Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)                         2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************       **************************************************************************
Intersection #69 Ashby Avenue / Adeline Street                                 Intersection #70 Ashby Avenue / Shattuck Avenue
**************************************************************************       **************************************************************************
Cycle (sec):       140        Critical Vol./Cap. (X):      0.623               Cycle (sec):        80        Critical Vol./Cap. (X):      0.567
Loss Time (sec):    16 (Y+R =  4 sec) Average Delay (sec/veh):   42.1          Loss Time (sec):    12 (Y+R =  5 sec) Average Delay (sec/veh):   16.7
Optimal Cycle:      96        Level Of Service:               D               Optimal Cycle:      53        Level Of Service:               B
**************************************************************************       **************************************************************************
Approach:     North Bound    South Bound     East Bound     West Bound         Approach:     North Bound    South Bound     East Bound     West Bound
Movement:    L - T - R      L - T - R      L - T - R      L - T - R            Movement:    L - T - R      L - T - R      L - T - R      L - T - R
-----------|--------------||--------------||--------------||--------------|     -----------|--------------||--------------||--------------||--------------|
Control:      Protected      Protected      Protected      Protected           Control:      Permitted      Permitted      Permitted      Permitted
Rights:        Include        Include        Include        Include            Rights:        Include        Include        Include        Include
Min. Green:   4  38  38     6  38  38     4  22  22     4  32  32              Min. Green:  21  21  21     6  21  21    20  20  20    20  20  20
Lanes:      1  0  1  1  0  1  0  2  1  0  1  0  1  1  0  1  0  1  1  0          Lanes:     0  1  0  1  0  0  1  0  1  0  0  1  0  1  0  0  1  0  1  0
-----------|--------------||--------------||--------------||--------------|     -----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM                 Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     74  567   61    11  438   96   189  564   49    83  549   14      Base Vol:     77  590   26   124  450   35    33  557   31    40  550  182
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00      Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  74  567   61    11  438   96   189  564   49    83  549   14      Initial Bse:  77  590   26   124  450   35    33  557   31    40  550  182
Added Vol:     4   12    0     0    2    5    44   78    1     0   19    0       Added Vol:     0  108    0     4   11    6    58   20    0     0   13   16
Future:       30   50   10    10   10   50    50  110   20    10  190    0       Future:       30   20   10    20   10   10    10  110   10    10  150   10
Initial Fut: 108  629   71    21  450  151   283  752   70    93  758   14      Initial Fut: 107  718   36   148  471   51   101  687   41    50  713  208
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00      User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00      PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  108  629   71    21  450  151   283  752   70    93  758   14      PHF Volume:  107  718   36   148  471   51   101  687   41    50  713  208
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0       Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 108  629   71    21  450  151   283  752   70    93  758   14      Reduced Vol: 107  718   36   148  471   51   101  687   41    50  713  208
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00      PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00      MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  108  629   71    21  450  151   283  752   70    93  758   14      Final Vol.:  107  718   36   148  471   51   101  687   41    50  713  208
-----------|--------------||--------------||--------------||--------------|     -----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:                                                        Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900      Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.94 0.94  0.95 0.88 0.88  0.95 0.94 0.94  0.95 0.95 0.95      Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      1.00 1.80 0.20  1.00 2.25 0.75  1.00 1.83 0.17  1.00 1.96 0.04      Lanes:      0.25 1.67 0.08  0.44 1.41 0.15  0.24 1.66 0.10  0.10 1.47 0.43
Final Sat.: 1805 3195  361  1805 3736 1254  1805 3260  303  1805 3534   65      Final Sat.:  472 3169  159   839 2671  289   463 3149  188   196 2790  814
-----------|--------------||--------------||--------------||--------------|     -----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:                                                      Capacity Analysis Module:
Vol/Sat:    0.06 0.20 0.20  0.01 0.12 0.12  0.16 0.23 0.23  0.05 0.21 0.21      Vol/Sat:    0.23 0.23 0.23  0.18 0.18 0.18  0.22 0.22 0.22  0.26 0.26 0.26
Crit Moves: ****              ****          ****              ****             Crit Moves:      ****                                         ****
                                                                              Green/Cycle: 0.40 0.40 0.40  0.40 0.40 0.40  0.45 0.45 0.45  0.45 0.45 0.45
Green/Cycle: 0.09 0.31 0.31  0.05 0.27 0.27  0.22 0.43 0.43  0.10 0.31 0.31      Volume/Cap: 0.57 0.57 0.57  0.44 0.44 0.44  0.48 0.48 0.48  0.57 0.57 0.57
Volume/Cap: 0.70 0.64 0.64  0.24 0.44 0.44  0.70 0.53 0.53  0.53 0.70 0.70      Delay/Veh:  20.2 20.2 20.2  18.4 18.4 18.4  13.9 13.9 13.9  14.9 14.9 14.9
Delay/Veh:  75.9 43.0 43.0  65.5 42.5 42.5  57.5 25.5 25.5  70.0 44.2 44.2      User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00      AdjDel/Veh: 20.2 20.2 20.2  18.4 18.4 18.4  13.9 13.9 13.9  14.9 14.9 14.9
AdjDel/Veh: 75.9 43.0 43.0  65.5 42.5 42.5  57.5 25.5 25.5  70.0 44.2 44.2      DesignQueue:   3   20    1     4   13    1     3   18    1     1   19    5
DesignQueue:   8   36    4     2   26    9    18   35    3     7   43    1      **************************************************************************
**************************************************************************


 Traffix 7.5.0715 (c) 2002 Dowling Assoc. Licensed to FEHR & PEERS,  LAFAYETTE   Traffix 7.5.0715 (c) 2002 Dowling Assoc. Licensed to FEHR & PEERS,  LAFAYETTE
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```
                              UC Berkeley LRDP EIR
                          2020 With Project Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
                  2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #71 Ashby Avenue / Telegraph Avenue
********************************************************************************
Cycle (sec):         80          Critical Vol./Cap. (X):          0.907
Loss Time (sec):     12 (Y+R =  6 sec) Average Delay (sec/veh):    26.9
Optimal Cycle:      100          Level Of Service:                   C
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:        Permitted       Prot+Permit       Permitted       Permitted
Rights:          Include          Include          Include          Include
Min. Green:   21   21   21     0   21   21    25   25   25    25   25   25
Lanes:       1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   1  0  1  1  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     150  985   80   148  623  103    86  549  120    89  573   83
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  150  985   80   148  623  103    86  549  120    89  573   83
Added Vol:      3   29    0     0    3    0     0   24    0     0   26    2
Future:        50   40   10    10   60   30    20   90   20    10   80   10
Initial Fut:  203 1054   90   158  686  133   106  663  140    99  679   95
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   203 1054   90   158  686  133   106  663  140    99  679   95
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  203 1054   90   158  686  133   106  663  140    99  679   95
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   203 1054   90   158  686  133   106  663  140    99  679   95
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.26 0.94 0.94  0.27 0.93 0.93  0.21 0.93 0.93  0.19 0.93 0.93
Lanes:       1.00 1.84 0.16  1.00 1.68 0.32  1.00 1.65 0.35  1.00 1.75 0.25
Final Sat.:   494 3286  281   515 2951  572   393 2903  613   363 3110  435
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.41 0.32 0.32  0.31 0.23 0.23  0.27 0.23 0.23  0.27 0.22 0.22
Crit Moves:  ****             ****                           ****
Green/Cycle: 0.43 0.43 0.43  0.53 0.53 0.53  0.32 0.32 0.32  0.32 0.32 0.32
Volume/Cap:  0.96 0.75 0.75  0.58 0.44 0.44  0.83 0.70 0.70  0.84 0.67 0.67
Delay/Veh:   74.4 22.7 22.7  23.0 12.5 12.5  68.1 26.5 26.5  72.6 25.7 25.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  74.4 22.7 22.7  23.0 12.5 12.5  68.1 26.5 26.5  72.6 25.7 25.7
DesignQueue:    5   29    2     6   15    3     3   21    4     3   22    3
********************************************************************************
```

```
                              UC Berkeley LRDP EIR
                          2020 With Project Conditions
                                 AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
                  2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #72 Ashby Avenue / College Avenue
********************************************************************************
Cycle (sec):         60          Critical Vol./Cap. (X):          1.181
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):    35.9
Optimal Cycle:      180          Level Of Service:                   D
********************************************************************************
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   18   18   18    18   18   18    30   30   30    30   30   30
Lanes:       0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      79  323   26   118  232   95    33  490   92     4  611  229
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   79  323   26   118  232   95    33  490   92     4  611  229
Added Vol:      0   24    0     4    2    0    18    6    0     0   28   49
Future:        20   20   10    20   20   60    20   80   10    10   20   30
Initial Fut:   99  367   36   142  254  155    71  576  102    14  659  308
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    99  367   36   142  254  155    71  576  102    14  659  308
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   99  367   36   142  254  155    71  576  102    14  659  308
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    99  367   36   142  254  155    71  576  102    14  659  308
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.81 0.81 0.81  0.73 0.73 0.73  0.84 0.84 0.84  0.95 0.95 0.95
Lanes:       0.20 0.73 0.07  0.26 0.46 0.28  0.09 0.77 0.14  0.01 0.68 0.31
Final Sat.:   303 1125  110   356  636  388   151 1224  217    26 1208  565
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.33 0.33 0.33  0.40 0.40 0.40  0.47 0.47 0.47  0.55 0.55 0.55
Crit Moves:                   ****                           ****
Green/Cycle: 0.38 0.38 0.38  0.45 0.45 0.45  0.53 0.53 0.53  0.54 0.54 0.54
Volume/Cap:  0.87 0.87 0.87  0.89 0.89 0.89  0.90 0.90 0.90  1.02 1.02 1.02
Delay/Veh:   32.3 32.3 32.3  29.7 29.7 29.7  27.1 27.1 27.1  48.0 48.0 48.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  32.3 32.3 32.3  29.7 29.7 29.7  27.1 27.1 27.1  48.0 48.0 48.0
DesignQueue:    2    8    1     3    5    3     1   10    2     0   12    6
********************************************************************************
```

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #73 Ashby Avenue / Claremont Avenue
********************************************************************************
Cycle (sec):          80          Critical Vol./Cap. (X):        0.840
Loss Time (sec):      12 (Y+R =  6 sec) Average Delay (sec/veh):    27.2
Optimal Cycle:        80          Level Of Service:                  C
********************************************************************************
Approach:        North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Split Phase       Split Phase         Permitted         Permitted
Rights:           Include           Include            Include           Include
Min. Green:   16   16   16    16   16   16    28   28   28    28   28   28
Lanes:         0  1  0  1  0   1  1  0  1  0   0  1  0  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      35  288  153   321  272   59    43  504   13    90  637  429
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   35  288  153   321  272   59    43  504   13    90  637  429
Added Vol:      0    0    0    20    0    0     0   10    0     0   78  193
Future:        20   10   30    40   50   10    30   60   10    30   20   50
Initial Fut:   55  298  183   381  322   69    73  574   23   120  735  672
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    55  298  183   381  322   69    73  574   23   120  735  672
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   55  298  183   381  322   69    73  574   23   120  735  672
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    55  298  183   381  322   69    73  574   23   120  735  672
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
Lanes:       0.21 1.11 0.68  1.48 1.25 0.27  0.22 1.71 0.07  0.16 0.96 0.88
Final Sat.:   370 2007 1233  2672 2259  484   393 3093  124   284 1738 1589
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.15 0.15 0.15  0.14 0.14 0.14  0.19 0.19 0.19  0.42 0.42 0.42
Crit Moves:  ****               ****                              ****
Green/Cycle: 0.20 0.20 0.20  0.20 0.20 0.20  0.45 0.45 0.45  0.45 0.45 0.45
Volume/Cap:  0.74 0.74 0.74  0.71 0.71 0.71  0.41 0.41 0.41  0.94 0.94 0.94
Delay/Veh:   34.2 34.2 34.2  32.1 32.1 32.1  12.6 12.6 12.6  28.7 28.7 28.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  34.2 34.2 34.2  32.1 32.1 32.1  12.6 12.6 12.6  28.7 28.7 28.7
DesignQueue:    2   11    7    14   12    3     2   15    1     3   20   18
********************************************************************************
```

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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             AM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #74 Tunnel Road / SR 13
********************************************************************************
Cycle (sec):          65          Critical Vol./Cap. (X):        0.832
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):    17.2
Optimal Cycle:        64          Level Of Service:                  B
********************************************************************************
Approach:        North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Protected         Protected       Split Phase       Split Phase
Rights:           Include           Include           Include             Ovl
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0  0  2  0  1   2  0  1  0  0   0  0  0  0  0   1  0  0  0  2
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:       0 1293  435   487  608    0     0    0    0   205    0  307
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0 1293  435   487  608    0     0    0    0   205    0  307
Added Vol:      0  271    0    15   14    0     0    0    0     0    0    0
Future:         0   80    0    60   70    0     0    0    0     0    0   20
Initial Fut:    0 1644  435   562  692    0     0    0    0   205    0  327
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0 1644  435   562  692    0     0    0    0   205    0  327
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0 1644  435   562  692    0     0    0    0   205    0  327
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:     0 1644  435   562  692    0     0    0    0   205    0  327
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 0.95 0.85  0.92 1.00 1.00  1.00 1.00 1.00  0.95 1.00 0.75
Lanes:       0.00 2.00 1.00  2.00 1.00 0.00  0.00 0.00 0.00  1.00 0.00 2.00
Final Sat.:     0 3610 1615  3502 1900    0     0    0    0  1805    0 2842
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.46 0.27  0.16 0.36 0.00  0.00 0.00 0.00  0.11 0.00 0.12
Crit Moves:       ****         ****                              ****
Green/Cycle: 0.00 0.55 0.55  0.19 0.74 0.00  0.00 0.00 0.00  0.14 0.00 0.33
Volume/Cap:  0.00 0.83 0.49  0.83 0.49 0.00  0.00 0.00 0.00  0.83 0.00 0.35
Delay/Veh:    0.0 15.4  9.5  33.9  3.7  0.0   0.0  0.0  0.0  48.1  0.0 16.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 15.4  9.5  33.9  3.7  0.0   0.0  0.0  0.0  48.1  0.0 16.7
DesignQueue:    0   30    8    17    7    0     0    0    0     7    0    8
********************************************************************************
```

                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                          PM Peak Hour

                         Scenario Report
Scenario: CUMULATIVE + LAB + PROJECT PM

Command: CUMULATIVE + PROJECT PM
Volume: CUMULATIVE PM
Geometry: CUMULATIVE + PROJECT PM
Impact Fee: Default Impact Fee
Trip Generation: PM LAB 2020 WITH PROJECT
Trip Distribution: Cumulative With Lab PM
Paths: Default Paths
Routes: Default Routes
Configuration: CUMULATIVE + LAB + PROJECT PM

                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                          PM Peak Hour

                      Trip Generation Report

                    Forecast for PM Peak - new

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	6701 San Pab	50.00	Office	0.25	1.24	13	62	75	4.9
	Zone 1 Subtotal					13	62	75	4.9
2	2000 Carleto	50.00	Office	0.25	1.24	13	62	75	4.9
	Zone 2 Subtotal					13	62	75	4.9
3		-1.00	Negative Parki	7.00	48.00	-7	-48	-55	-3.6
3		1.00	Parking	13.00	89.00	13	89	102	6.6
	Zone 3 Subtotal					6	41	47	3.0
4		1.00	Parking	17.00	119.00	17	119	136	8.8
	Zone 4 Subtotal					17	119	136	8.8
5		1.00	Parking	4.00	30.00	4	30	34	2.2
	Zone 5 Subtotal					4	30	34	2.2
6		1.00	Parking	13.00	89.00	13	89	102	6.6
	Zone 6 Subtotal					13	89	102	6.6
7		1.00	Parking	13.00	89.00	13	89	102	6.6
	Zone 7 Subtotal					13	89	102	6.6
8		1.00	Parking	4.00	30.00	4	30	34	2.2
	Zone 8 Subtotal					4	30	34	2.2
9		1.00	Parking	13.00	89.00	13	89	102	6.6
	Zone 9 Subtotal					13	89	102	6.6
10		1.00	Parking	21.00	149.00	21	149	170	11.0
	Zone 10 Subtotal					21	149	170	11.0
11		1.00	Parking	13.00	89.00	13	89	102	6.6
	Zone 11 Subtotal					13	89	102	6.6
12		-1.00	Negative Parki	6.00	42.00	-6	-42	-48	-3.1
	Zone 12 Subtotal					-6	-42	-48	-3.1

TOTAL 124   807   931 60.4

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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                           PM Peak Hour
-------------------------------------------------------------------------------
                       Trip Generation Report

                  Forecast for PM Peak - diverted

Zone                              Rate   Rate   Trips Trips Total % Of
 #   Subzone      Amount  Units    In     Out    In    Out  Trips Total

---- ------------ ------- -------------- ------ ------ ----- ----- ----- -----

  3               -1.00 Negative Parki  1.00  9.00    -1    -9   -10  -0.6
  3                1.00 Parking         2.00 17.00     2    17    19   1.2
        Zone 3 Subtotal ...........................    1     8     9   0.6
  4                1.00 Parking         3.00 23.00     3    23    26   1.7
        Zone 4 Subtotal ...........................    3    23    26   1.7

  5                1.00 Parking         1.00  6.00     1     6     7   0.5
        Zone 5 Subtotal ...........................    1     6     7   0.5

  6                1.00 Parking         2.00 17.00     2    17    19   1.2
        Zone 6 Subtotal ...........................    2    17    19   1.2

  7                1.00 Parking         2.00 17.00     2    17    19   1.2
        Zone 7 Subtotal ...........................    2    17    19   1.2

  8                1.00 Parking         1.00  6.00     1     6     7   0.5
        Zone 8 Subtotal ...........................    1     6     7   0.5

  9                1.00 Parking         2.00 17.00     2    17    19   1.2
        Zone 9 Subtotal ...........................    2    17    19   1.2

 10                1.00 Parking         4.00 28.00     4    28    32   2.1
        Zone 10 Subtotal ..........................    4    28    32   2.1

 11                1.00 Parking         2.00 17.00     2    17    19   1.2
        Zone 11 Subtotal ..........................    2    17    19   1.2

 12               -1.00 Negative Parki  1.00  8.00    -1    -8    -9  -0.6
        Zone 12 Subtotal ..........................   -1    -8    -9  -0.6


-------------------------------------------------------------------------------
TOTAL ...............................................   17   131   148   9.6
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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                           PM Peak Hour
-------------------------------------------------------------------------------
                       Trip Generation Report

                    Forecast for APPROVED PM

Zone                              Rate   Rate   Trips Trips Total % Of
 #   Subzone      Amount  Units    In     Out    In    Out  Trips Total

---- ------------ ------- -------------- ------ ------ ----- ----- ----- -----

 13 Lower Hearst    1.00 Approved Parki  6.00 39.00     6    39    45   2.9
        Zone 13 Subtotal ..........................    6    39    45   2.9

 14 Underhill       1.00 Approved Parki 35.00 242.00   35   242   277  18.0
        Zone 14 Subtotal ..........................   35   242   277  18.0


-------------------------------------------------------------------------------
TOTAL ...............................................   41   281   322  20.9
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                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
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                        Trip Generation Report

                      Forecast for PM LAB 2020

Zone                            Rate   Rate   Trips Trips Total % Of
 #   Subzone      Amount Units   In     Out    In    Out   Trips Total

---- ------------ ------- -------------- ------ ------ ----- ----- ----- -----

 101 Blackberry I   1.00 LBNL Blackberr 13.00   0.00    13     0    13   0.8
          Zone 101 Subtotal ..........................    13     0    13   0.8

 102 Blackberry O   1.00 LBNL Blackberr  0.00  58.00     0    58    58   3.8
          Zone 102 Subtotal ..........................     0    58    58   3.8

 103 Strawberry I   1.00 LBNL Strawberr  3.00   0.00     3     0     3   0.2
          Zone 103 Subtotal ..........................     3     0     3   0.2

 104 Strawberry O   1.00 LBNL Strawberr  0.00  21.00     0    21    21   1.4
          Zone 104 Subtotal ..........................     0    21    21   1.4

 106 Grizzly OUT    1.00 LBNL Grizzly O  0.00  45.00     0    45    45   2.9
          Zone 106 Subtotal ..........................     0    45    45   2.9


-------------------------------------------------------------------------------
TOTAL ...............................................    16   124   140   9.1
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                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
```

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                      Trip Distribution Report

              Percent Of Trips CUMULATIVE PM WITH LAB
```

| | | | | | To Gates | | | | | | |
Zone	1	2	3	4	5	6	7	8	9	10	11
1	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
2	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
3	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
4	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
5	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
6	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
7	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
8	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
9	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
10	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
11	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
12	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
13	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
14	13.4	4.5	7.0	5.4	10.2	13.0	8.1	11.1	12.9	14.4	0.0
101	5.3	0.0	5.2	0.0	13.8	8.6	19.0	25.9	10.3	0.0	1.7
102	5.1	0.0	13.5	0.0	9.1	10.9	17.2	20.4	11.3	0.0	2.6
103	7.1	0.0	7.1	0.0	14.3	7.1	21.4	28.6	14.4	0.0	0.0
104	5.0	0.0	14.0	0.0	10.0	12.0	17.0	22.0	10.0	0.0	2.0
105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106	5.2	0.0	13.3	0.0	9.0	10.0	18.5	20.4	11.4	0.0	2.8

| | To Gates | | | | | |
Zone	12	13	14	15	16	17
1	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0
101	1.7	1.7	1.7	1.7	1.7	1.7
102	2.6	1.5	1.5	2.1	1.1	1.1
103	0.0	0.0	0.0	0.0	0.0	0.0
104	2.0	1.0	1.0	2.0	1.0	1.0
105	0.0	0.0	0.0	0.0	0.0	0.0

```
                             UC Berkeley LRDP EIR
                          2020 With Project Conditions
                                 PM Peak Hour
--------------------------------------------------------------------------------
                        To Gates
              12    13    14    15    16    17
    Zone    ----- ----- ----- ----- ----- -----

    106      2.8   1.4   1.4   1.9   0.9   1.0
```

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                             UC Berkeley LRDP EIR
                          2020 With Project Conditions
                                 PM Peak Hour
--------------------------------------------------------------------------------
                            Turning Movement Report
            PM Peak - new + PM Peak - diverted + APPROVED PM + PM LAB 2020

Volume     Northbound       Southbound       Eastbound        Westbound     Total
Type    Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#1 Marin Avenue / San Pablo Avenue
Base     227 1022  114   169  659   18    18  656  137   145  736  154   4055
Added      5  117    3     1   20    0     0    3    1     1   18   19    188
Future    30  209   50    90  221   28    27  181   10    47  163   90   1146
Total    262 1348  167   260  900   46    45  840  148   193  917  263   5389

#2 Marin Avenue / The Alameda
Base     316  322    1    43  178   77    50  534  193    17  480   69   2280
Added     21    3    5     0    1    0     0    5    1     1   16    0     53
Future   130  110   10    10   30   70    20  200   80    10   70   10    750
Total    467  435   16    53  209  147    70  739  274    28  566   79   3083

#3 Gilman Street / Sixth Street
Base     346   46  159    24   47   52    28  497  109    53  489   11   1861
Added      9    0    0     0    0    0     0    0    2     0    1    0     12
PassBy   120    0   93    20   90    0     0  193  180   122   41    0    859
Total    475   46  252    44  137   52    28  690  291   175  531   11   2732

#4 Gilman Street / San Pablo Avenue
Base     140 1057   87   126  830  112   174  345  155    40  233   82   3381
Added      1  126    0     0   22    0     0    0    0     0    0    0    149
PassBy    60  183   40    20  180   30   107   50  120    10   30   44    874
Total    201 1366  127   146 1032  142   281  395  275    50  263  126   4404

#5 Rose Street / Shattuck Avenue
Base     159  641   14   112  444   26    69  253   49    29  214  228   2238
Added      0    9    0     1    1    0     0    0    0     0    0    4     15
Future    60  230   20    10  220   10    10   10   30    20   10   10    640

Total    219  880   34   123  665   36    79  263   79    49  224  242   2893

#6 Cedar Street / Martin Luther King Way
Base      53  614   65    30  541   12    20  297   57    68  296   65   2118
Added      2   25    4     0    2    0     0    2    0     1   12    0     48
Future    20  210   30    20   80   10    10  110   10    10   30   10    550
Total     75  849   99    50  623   22    30  409   67    79  338   75   2716

#7 Cedar Street / Shattuck Avenue
Base     138  795   56   144  619   72    86  275   67    59  341  150   2802
Added      0    7    0     0    1    0     0    6    0     1   13    1     29
Future    20  230   40    20  210   10    10   80   40    60   20   40    780
Total    158 1032   96   164  830   82    96  361  107   120  374  191   3611
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-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                              PM Peak Hour
-------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound      Total
Type    Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right  Volume


#8 Cedar Street / Oxford Street
Base      91  464   81    17  196   17    18  307   57    61  340   31    1680
Added     16  112    0     0   14    2     4    0    2     0   -3    0     147
future    40   80   20    10   10    0    20  120   40    50  100   10     500
Total    147  656  101    27  220   19    42  427   99   111  437   41    2327

#9 Cedar Street / Euclid Avenue
Base      90  226   29     7  127   44    51  180   49    18   91    0     912
Added      0    3    0     0    1    0     3    0    0     0   -2    0       5
Future    50   30    0     0   10   20    40  100   40    10   70    0     370
Total    140  259   29     7  138   64    94  280   89    28  159    0    1287

#10 Grizzly Peak Blvd / Centennial Drive
Base     162   65  250    33   30    8     3  159   45    22  111   25     913
Added      7    0   39     0    0    0     0    0    0     4    0    0      50
Future    10    0   30     0    0    0     0   20   20    10   10    0     100
Total    179   65  319    33   30    8     3  179   65    36  121   25    1063

#11 Hearst Avenue / Shattuck Avenue
Base      34  715   63   117  537   54    67  232   20   122  321  136    2418
Added     22    6   -2     0    2    0     0    5    3    31   37    2     106
Future    20  160   30    60  240   40    50   20   20    50   20   90     800
Total     76  881   91   177  779   94   117  257   43   203  378  228    3324

#12 Hearst Avenue / Oxford Avenue
Base      80  743  315    30  458   25    23  267  115   313  478   52    2899
Added     -1  103   11    17   48   24     2    2    0    42   46    4     298
Future    30  110   40    10   70   20     0   80   40    40 1120   10    1570
Total    109  956  366    57  576   69    25  349  155   395 1644   66    4767

#13 Hearst Avenue / Spruce Street
Base       0    0    0    11    0   48    34  579    0     0  792   13    1477
Added      0    0    0     1    0    0     0   29    0     0   92    3     125
Future     0    0    0     0    0   20     0  130    0     0  170    0     320
Total      0    0    0    12    0   68    34  738    0     0 1054   16    1922

#14 Hearst Avenue / Arch Street / Le Conte Avenue
Base       0    0    0     6    0  135   146  439    0     0  668    6    1400
Added      0    0    0     0    0    0     3   26    0     0   96    0     125
Future     0    0    0     0    0   40    50  100    0     0  150    0     340
Total      0    0    0     6    0  175   199  565    0     0  914    6    1865

#15 Hearst Avenue / Scenic Avenue
Base       0    0    0     0    0  109     0  437    0     0  566   54    1166
Added      0    0    0     0    0   11     0    0    0     0   84    0      95
Future     0    0    0     0    0   30     0  100    0     0  140   10     280
Total      0    0    0     0    0  150     0  537    0     0  790   64    1541
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-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                              PM Peak Hour
-------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound      Total
Type    Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right  Volume


#16 Hearst Avenue / Euclid Avenue
Base       4    0    1    57    0  115   120  307    0     2  503   23    1132
Added      0    0    0     0    0    0     0   26    0     0   74    3     103
Future     0    0    0    10    0   40    40   80    0     0  130   10     310
Total      4    0    1    67    0  155   160  413    0     2  707   36    1545

#17 Hearst Avenue / Le Roy Avenue
Base       0    0    0    12    0   56    38  355    0     0  523   21    1005
Added      0    0    0     0    0    0     0   27    0     0   76    0     103
Future     0    0    0     0    0   10    20   90    0     0  140   10     270
Total      0    0    0    12    0   66    58  472    0     0  739   31    1378

#18 Hearst Avenue / Gayley Road / LaLoma Avenue
Base     318  288   19     4  203   49    28   52  288    69  197   40    1555
Added     26   28    7     0   12    0     0    6   20     8   50    0     157
Future    90   30   10     0    0   20    20   30   60    10   60   10     340
Total    434  346   36     4  215   69    48   88  368    87  307   50    2052

#19 Berkeley Way / Oxford Street
Base      48 1039    3     4  890   22    72    2   51    29   18   42    2220
Added      5   90    0     0   87    3    23    0   34     0    0    0     242
Future    20  160    0     0  170    0    10    0   10    20    0   10     400
Total     73 1289    3     4 1147   25   105    2   95    49   18   52    2862

#20 University Avenue / Sixth Street
Base     343  353   48   101  239  465   163  827  212    42 1205   33    4031
Added      0    4    2     0   19    8     1   36    0     5  264    0     339
Future    10   70   40   100  130  100    20  200   20    20  120   10     840
Total    353  427   90   201  388  573   184 1063  232    67 1589   43    5210

#21 University Avenue / San Pablo Avenue
Base     233  945   93   141  681   84    87  986  105    71  906  125    4457
Added      1   19    1    10    8    0     0   38    0     6  268   80     431
Future    50   90   10    20  220   60    90  190   80    10   60   20     900
Total    284 1054  104   171  909  144   177 1214  185    87 1234  225    5788

#22 University Avenue / Martin Luther King Way
Base     282  902   78    46  702   77    80  679  134    71  727   81    3859
Added     12   25    0     0    3    1     0   49    0     3  343    0     436
Future    30  200   20    30   60   10    30  170   40    10   70   10     680
Total    324 1127   98    76  765   88   110  898  174    84 1140   91    4975

#23 University Avenue / Milvia Street
Base     127  218   44    13  102   74    47  649  108    22  651   33    2088
Added      0    0    0     0    0    0     0   50    0     0  346    0     396
Future    10   10   10    10   10   10    20  180   20    10   80   20     390
Total    137  228   54    23  112   84    67  879  128    32 1077   53    2874
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UC Berkeley LRDP EIR
2020 With Project Conditions
PM Peak Hour

Volume Type	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total Volume
#24 University Avenue / SB Shattuck Avenue													
Base	0	0	0	55	576	146	131	374	254	74	642	640	2892
Added	0	0	0	0	74	50	7	27	16	4	296	5	479
Future	0	0	0	30	230	30	40	100	50	10	80	130	700
Total	0	0	0	85	880	226	178	501	320	88	1018	775	4071
#25 University Avenue / NB Shattuck Avenue													
Base	938	0	208	0	0	0	0	454	0	0	433	0	2033
Added	155	0	12	0	0	0	0	27	0	0	150	0	344
Future	150	0	40	0	0	0	0	0	0	0	70	0	260
Total	1243	0	260	0	0	0	0	481	0	0	653	0	2637
#26 University Avenue / Oxford Street													
Base	278	771	16	32	835	106	306	39	330	9	37	40	2799
Added	90	75	0	0	55	66	22	-1	19	-2	-6	-2	316
Future	50	130	0	10	160	30	20	10	20	0	10	10	450
Total	418	976	16	42	1050	202	348	48	369	7	41	48	3565
#27 Univeristy Drive (East Gate) / Gayley Road													
Base	59	552	0	0	505	52	41	0	81	0	0	0	1290
Added	-2	80	0	0	43	-3	-19	0	-12	0	0	0	87
Future	20	110	0	0	60	10	10	0	20	0	0	0	230
Total	77	742	0	0	608	59	32	0	89	0	0	0	1607
#28 Addison Street / Oxford Street													
Base	32	1006	0	0	952	28	10	0	114	0	0	0	2142
Added	3	149	0	0	70	2	16	0	18	0	0	0	258
Future	10	180	0	0	170	10	0	0	10	0	0	0	380
Total	45	1335	0	0	1192	40	26	0	142	0	0	0	2780
#29 Center Street / SB Shattuck Avenue													
Base	0	0	0	41	790	126	0	104	179	29	160	0	1429
Added	0	0	0	0	105	0	0	0	0	-2	2	0	105
Future	0	0	0	10	230	40	0	50	30	30	40	0	430
Total	0	0	0	51	1125	166	0	154	209	57	202	0	1964
#30 Center Street / NB Shattuck Avenue													
Base	50	982	86	0	0	0	81	55	0	0	139	58	1451
Added	0	117	0	0	0	0	0	0	0	0	0	0	117
Future	30	110	30	0	0	0	30	40	0	0	40	60	340
Total	80	1209	116	0	0	0	111	95	0	0	179	118	1908
#31 Center Street / Oxford Street													
Base	87	998	24	19	980	67	33	6	84	37	9	16	2360
Added	0	156	0	-1	85	3	0	0	0	-2	-3	-5	233
Future	40	150	10	0	150	30	30	0	30	0	0	0	440
Total	127	1304	34	18	1215	100	63	6	114	35	6	11	3033

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UC Berkeley LRDP EIR
2020 With Project Conditions
PM Peak Hour

Volume Type	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total Volume
#32 Stadium Rim Road / Gayley Road													
Base	0	359	19	135	459	0	20	7	15	47	0	232	1293
Added	0	53	22	5	26	0	0	0	0	24	0	25	155
Future	0	90	10	20	50	0	0	0	0	10	0	30	210
Total	0	502	51	160	535	0	20	7	15	81	0	287	1658
#33 Allston Way / Oxford Street													
Base	46	1002	0	26	1082	75	23	0	110	0	0	0	2364
Added	0	156	0	0	83	0	0	0	0	0	0	0	239
Future	0	190	0	10	160	10	0	0	30	0	0	0	400
Total	46	1348	0	36	1325	85	23	0	140	0	0	0	3003
#34 Kittridge Street / Oxford Street / Fulton Street													
Base	45	995	0	0	1108	96	51	0	69	0	0	0	2364
Added	0	94	3	9	74	0	0	3	0	18	26	62	289
Future	20	180	0	0	150	30	10	0	20	0	0	0	410
Total	65	1269	3	9	1332	126	61	3	89	18	26	62	3063
#35 Stadium Rim Road / Centennial Drive													
Base	0	99	140	102	57	0	0	0	0	204	0	146	748
Added	0	0	0	27	0	0	0	0	0	0	0	49	76
Future	0	20	20	20	10	0	0	0	0	10	0	20	100
Total	0	119	160	149	67	0	0	0	0	214	0	215	924
#36 Bancroft Way / Shattuck Avenue													
Base	30	1186	0	0	949	23	1	0	38	258	97	111	2693
Added	0	44	0	0	129	0	0	0	0	107	0	76	356
Future	10	150	0	0	290	10	0	0	0	30	20	20	530
Total	40	1380	0	0	1368	33	1	0	38	395	117	207	3579
#37 Bancroft Way / Fulton Street													
Base	18	164	0	0	1066	165	0	0	0	12	287	898	2610
Added	2	0	0	0	85	7	0	0	0	20	143	97	354
Future	10	10	0	0	130	20	0	0	0	10	30	170	380
Total	30	174	0	0	1281	192	0	0	0	42	460	1165	3344
#38 Bancroft Way / Ellsworth Street													
Base	348	11	0	0	0	100	0	0	0	0	877	6	1342
Added	12	0	0	0	0	0	0	0	0	0	157	0	169
Future	50	0	0	0	0	0	0	0	0	0	230	0	280
Total	410	11	0	0	0	100	0	0	0	0	1264	6	1791
#39 Bancroft Way / Dana Street													
Base	0	0	0	0	0	0	0	0	0	282	873	0	1155
Added	0	0	0	0	0	0	0	0	0	32	157	0	189
Future	0	0	0	0	0	0	0	0	0	50	230	0	280
Total	0	0	0	0	0	0	0	0	0	364	1260	0	1624

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UC Berkeley LRDP EIR
2020 With Project Conditions
PM Peak Hour

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#40 Bancroft Way / Telegraph Avenue													
Base	495	0	0	0	0	0	0	0	0	0	675	0	1170
Added	3	0	0	0	0	0	0	0	0	0	156	0	159
Future	130	0	0	0	0	0	0	0	0	0	140	0	270
Total	628	0	0	0	0	0	0	0	0	0	971	0	1599
#41 Bancroft Way / Bowditch Street													
Base	191	0	0	0	0	0	0	0	0	99	494	0	784
Added	0	0	0	0	0	0	0	0	0	27	156	0	183
Future	30	0	0	0	0	0	0	0	0	20	110	0	160
Total	221	0	0	0	0	0	0	0	0	146	760	0	1127
#42 Bancroft Way / College Avenue													
Base	371	0	0	0	0	0	0	0	0	83	226	0	680
Added	20	0	0	0	0	0	0	0	0	18	41	0	79
Future	100	0	0	0	0	0	0	0	0	0	20	0	120
Total	491	0	0	0	0	0	0	0	0	101	287	0	879
#43 Bancroft Way / Piedmont Avenue													
Base	152	439	0	0	357	159	0	0	0	0	0	0	1107
Added	13	65	0	0	36	46	0	0	0	0	0	0	160
Future	10	90	0	0	40	10	0	0	0	0	0	0	150
Total	175	594	0	0	433	215	0	0	0	0	0	0	1417
#44 Durant Avenue / Shattuck Avenue													
Base	69	1216	120	88	1099	51	9	72	55	0	0	0	2779
Added	0	44	13	15	221	0	0	0	0	0	0	0	293
Future	10	170	60	60	260	10	0	40	10	0	0	0	620
Total	79	1430	193	163	1580	61	9	112	65	0	0	0	3692
#45 Durant Avenue / Fulton Street													
Base	0	0	0	527	760	0	137	219	33	0	0	0	1676
Added	0	0	0	86	20	0	2	27	0	0	0	0	135
Future	0	0	0	70	90	0	20	110	30	0	0	0	320
Total	0	0	0	683	870	0	159	356	63	0	0	0	2131
#46 Durant Avenue / Telegraph Avenue													
Base	0	362	119	0	0	0	202	690	0	0	0	0	1373
Added	0	1	5	0	0	0	2	100	0	0	0	0	108
Future	0	110	30	0	0	0	20	160	0	0	0	0	320
Total	0	473	154	0	0	0	224	950	0	0	0	0	1801
#47 Durant Avenue / College Avenue													
Base	0	189	62	16	56	0	127	268	202	0	0	0	920
Added	0	4	4	0	18	0	16	96	18	0	0	0	156
Future	0	40	20	0	0	0	60	70	40	0	0	0	230
Total	0	233	86	16	74	0	203	434	260	0	0	0	1306

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Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#48 Durant Avenue / Piedmont Avenue													
Base	0	398	0	0	427	0	179	0	197	0	0	0	1201
Added	0	56	0	0	36	0	21	0	79	0	0	0	192
Future	0	70	0	0	50	0	40	0	40	0	0	0	200
Total	0	524	0	0	513	0	240	0	316	0	0	0	1593
#49 Channing Way / Shattuck Avenue													
Base	83	1279	94	19	1089	49	18	76	81	144	97	106	3135
Added	0	31	6	0	221	0	0	0	0	24	0	26	308
Future	10	180	20	50	110	90	30	80	20	30	20	30	670
Total	93	1490	120	69	1420	139	48	156	101	198	117	162	4113
#50 Channing Way / Fulton Street													
Base	0	0	0	48	686	61	0	133	38	15	257	0	1238
Added	0	0	0	4	16	0	0	6	0	0	50	0	76
Future	0	0	0	10	100	0	0	110	30	10	70	0	330
Total	0	0	0	62	802	61	0	249	68	25	377	0	1644
#51 Channing Way / Telegraph Avenue													
Base	86	410	41	0	0	0	23	144	0	0	227	46	977
Added	0	4	9	0	0	0	0	14	0	0	50	2	79
Future	10	40	30	0	0	0	0	30	80	40	30	0	260
Total	96	454	80	0	0	0	23	188	80	40	307	48	1316
#52 Channing Way / College Avenue													
Base	31	189	41	7	206	24	5	95	58	124	141	47	968
Added	3	8	-1	0	36	0	0	78	20	-3	12	0	153
Future	30	60	30	0	40	10	30	40	40	40	20	30	370
Total	64	257	70	7	282	34	35	213	118	161	173	77	1491
#53 Haste Street / Shattuck Avenue													
Base	104	1277	0	0	1208	88	0	0	0	268	336	152	3433
Added	0	37	0	0	200	45	0	0	0	32	73	0	387
Future	30	160	0	0	130	20	0	0	0	40	80	40	500
Total	134	1474	0	0	1538	153	0	0	0	340	489	192	4320
#54 Haste Street / Fulton Street													
Base	0	0	0	0	580	154	0	0	0	50	604	0	1388
Added	0	0	0	0	12	5	0	0	0	0	100	0	117
Future	0	0	0	0	70	80	0	0	0	30	60	0	240
Total	0	0	0	0	662	239	0	0	0	80	764	0	1745
#55 Haste Street / Telegraph Avenue													
Base	186	476	0	0	0	0	0	0	0	0	470	57	1189
Added	0	12	0	0	0	0	0	0	0	0	100	0	112
Future	50	100	0	0	0	0	0	0	0	0	50	30	230
Total	236	588	0	0	0	0	0	0	0	0	620	87	1531

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Volume   Northbound        Southbound        Eastbound         Westbound    Total
Type   Left Thru Right  Left Thru Right  Left Thru Right   Left Thru Right  Volume


#56 Haste Street / College Avenue
Base    88  236    0    0  337   56    0    0    0    90  244   29   1080
Added    2   11    0    0   51    1    0    0    0     0    2    0     67
Future  30   70    0    0   80   30    0    0    0    30   30   40    310
Total  120  317    0    0  468   87    0    0    0   120  276   69   1457

#57 Dwight Way / Martin Luther King Way
Base    71  821   60  113  860  272   49  444  111    0    0    0   2801
Added   17   13    0    0   15   85    0   14    4     0    0    0    148
Future  10  220   10   20   90   10   20   50   10     0    0    0    440
Total   98 1054   70  133  965  367   69  508  125     0    0    0   3389

#58 Dwight Way / Shattuck Avenue
Base     0 1273  123  133 1390    0   77  426  200    0    0    0   3622
Added    0   32    0   12  220    0    5   10    0     0    0    0    279
Future   0  160   30   10  140    0   10   50   10     0    0    0    410
Total    0 1465  153  155 1750    0   92  486  210     0    0    0   4311

#59 Dwight Way / Fulton Street
Base     0    0   62  631    0    0    0  664   15     0    0    0   1372
Added    0    0    0   12    0    0    0   22    0     0    0    0     34
Future   0    0   20  100    0    0    0   60   30     0    0    0    210
Total    0    0   82  743    0    0    0  746   45     0    0    0   1616

#60 Dwight Way / Telegraph Avenue
Base     0  590  149    0    0    0  130  671  813    0    0    0   2353
Added    0    4    0    0    0    0    9   25   27     0    0    0     65
Future   0  120   10    0    0    0   10   60  100     0    0    0    300
Total    0  714  159    0    0    0  149  756  940     0    0    0   2718

#61 Dwight Way / College Avenue
Base     0  294   52   49  374    0   34  483  129    0    0    0   1415
Added    0   12    0    0   51    0    1   20    4     0    0    0     88
Future   0   50   60   20   80    0   30    0   10     0    0    0    250
Total    0  356  112   69  505    0   65  503  143     0    0    0   1753

#62 Dwight Way / Piedmont Avenue / Warring Street
Base     0  527    1    8  353    0  132  162  307   53    0  112   1655
Added    0   26    0    0  151    0    0    0   20     0    0    0    197
Future   0   80   20   10   30    0   20   10   40    30    0   10    250
Total    0  633   21   18  534    0  152  172  367   83    0  122   2102

#63 Dwight Avenue / Prospect Street
Base     0    0    0   27    0  165  187  128    0     0   93   16    616
Added    0    0    0    0    0    0    0    0    0     0    0    0      0
Future   0    0    0   10    0   20   20   20    0     0   20    0     90
Total    0    0    0   37    0  185  207  148    0     0  113   16    706
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Volume   Northbound        Southbound        Eastbound         Westbound    Total
Type   Left Thru Right  Left Thru Right  Left Thru Right   Left Thru Right  Volume


#64 Adeline Street / Ward Avenue / Shattuck Avenue
Base     0  690    5    0  957  825  903    0    2     0    0    0   3382
Added    0   24    0    0  182   52    7    0    0     0    0    0    265
Future   0   50    0    0   50  110  130    0    0     0    0    0    340
Total    0  764    5    0 1189  987 1040    0    2     0    0    0   3987

#65 Derby Street / Warring Street
Base     0    0    0  765    0   30    7   62    0     0   75  780   1719
Added    0    0    0  171    0    0    0    0    0     0    0   26    197
PassBy   0    0    0  110    0   10    0    0    0     0    0  120    240
Total    0    0    0 1046    0   40    7   62    0     0   75  926   2156

#66 Derby Street / Claremont Blvd.
Base     4    0  225    0    0    0    0  872   11    31  741    0   1884
Added    0    0    0    0    0    0    0  171    0     0   26    0    197
PassBy   0    0    0    0    0    0    0  120    0     0  120    0    240
Total    4    0  225    0    0    0    0 1163   11    31  887    0   2321

#67 Ashby Avenue / Seventh Street
Base   134  404   68  107  270  476  263  546  113    98  774   31   3284
Added    0    0    0    0    0    0    0   14    0     0   90    0    104
Future  60   60   10   90   30    0   30   60   60    20   60   70    550
Total  194  464   78  197  300  476  293  620  173   118  924  101   3938

#68 Ashby Avenue / San Pablo Avenue
Base   162  999   79  185  873  113   86  592  170    20  612  143   4034
Added   13   26   28    0   14   16    0   11    3    58   60    0    229
Future  20  190   90   20  320   30   20   90   50    40   90   30    990
Total  195 1215  197  205 1207  159  106  693  223   118  762  173   5253

#69 Ashby Avenue / Adeline Street
Base    92  693   85   31  700  169  135  491   39    68  547   39   3089
Added    1    2    0    0   11   40    6   22    4     0   57    0    143
Future  60   70   10   10   10   80   50  160   20    10   50   10    540
Total  153  765   95   41  721  289  191  673   63    78  654   49   3772

#70 Ashby Avenue / Shattuck Avenue
Base    52  556   30  200  585   56   33  536   40    32  541  176   2837
Added    0   14    0   25   99   56    7   14    0     0    1    3    219
Future  10   10   10   20   20   10   10  170   20    10   60   20    370
Total   62  580   40  245  704  122   50  720   60    42  602  199   3426

#71 Ashby Avenue / Telegraph Avenue
Base   210  675   75  176  902   63   68  531  184   148  642   99   3773
Added    1    4    0    2   25    0    0   36    3     0    3    0     74
Future  30   80   10   10   60   10   30  110   50    20   50   20    480
Total  241  759   85  188  987   73   98  677  237   168  695  119   4327
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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#72 Ashby Avenue / College Avenue

	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	75	293	68	159	279	58	15	683	87	10	466	151	2344
Added	0	3	0	37	20	-2	2	35	0	0	5	7	107
Future	10	60	10	20	60	10	10	120	20	10	60	30	420
Total	85	356	78	216	359	66	27	838	107	20	531	188	2871

#73 Ashby Avenue / Claremont Avenue

	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	45	373	189	432	285	49	47	592	5	66	504	232	2819
Added	0	0	0	171	0	0	0	72	0	0	12	26	281
Future	10	60	20	60	50	20	40	130	10	10	60	20	490
Total	55	433	209	663	335	69	87	794	15	76	576	278	3590

#74 Tunnel Road / SR 13

	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	1130	256	534	1095	0	0	0	0	128	0	155	3298
Added	0	38	0	122	121	0	0	0	0	0	0	0	281
Future	0	80	0	70	140	0	0	0	0	0	0	10	300
Total	0	1248	256	726	1356	0	0	0	0	128	0	165	3879

#1004

	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	7	0	14	2	25	0	0	35	1	84
Total	0	0	0	7	0	14	2	25	0	0	35	1	84

#1005

	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	14	0	31	0	32	0	0	5	0	82
Total	0	0	0	14	0	31	0	32	0	0	5	0	82

#1101 I-880 South/ I-80 West CHECK

	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	25	0	0	170	0	0	0	0	0	0	0	195
Total	0	25	0	0	170	0	0	0	0	0	0	0	195

#1121 Highland Place/Heart Avenue/Cyclotron

	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	13	0	0	58	0	71
Total	0	0	0	0	0	0	0	13	0	0	58	0	71

#1122 Stadium Rim Road/ Canyon Road

	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

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                       Impact Analysis Report
                         Level Of Service

Intersection	Base			Future			Change
	LOS	Del/Veh	V/C	LOS	Del/Veh	V/C	in
# 1 Marin Avenue / San Pablo Avenu	D	41.6	0.874	F	96.0	1.164	+54.363 D/V
# 2 Marin Avenue / The Alameda	B	14.1	0.574	C	22.3	0.869	+ 8.218 D/V
# 3 Gilman Street / Sixth Street	E	60.6	0.864	F	128.7	1.267	+68.070 D/V
# 4 Gilman Street / San Pablo Aven	D	37.3	0.724	E	68.6	1.070	+31.335 D/V
# 5 Rose Street / Shattuck Avenue	B	11.0	0.514	B	16.3	0.759	+ 5.244 D/V
# 6 Cedar Street / Martin Luther K	C	21.3	0.792	D	51.1	1.086	+29.823 D/V
# 7 Cedar Street / Shattuck Avenue	B	11.5	0.580	B	16.7	0.764	+ 5.241 D/V
# 8 Cedar Street / Oxford Street	B	19.0	0.711	E	62.5	1.103	+43.539 D/V
# 9 Cedar Street / Euclid Avenue	B	11.5	0.428	B	14.0	0.637	+ 2.472 D/V
# 10 Grizzly Peak Blvd / Centennial	C	15.4	0.738	D	25.2	0.905	+ 0.167 V/C
# 11 Hearst Avenue / Shattuck Avenu	B	13.5	0.478	C	22.6	0.869	+ 9.127 D/V
# 12 Hearst Avenue / Oxford Avenue	D	36.1	0.883	D	48.7	0.961	+12.589 D/V
# 13 Hearst Avenue / Spruce Street	B	2.4	0.000	C	2.7	0.000	+ 0.000 V/C
# 14 Hearst Avenue / Arch Street /	B	1.6	0.000	C	2.0	0.000	+ 0.000 V/C
# 15 Hearst Avenue / Scenic Avenue	B	0.7	0.000	B	0.9	0.000	+ 0.000 V/C
# 16 Hearst Avenue / Euclid Avenue	B	18.4	0.458	B	17.2	0.632	-1.242 D/V
# 17 Hearst Avenue / Le Roy Avenue	B	2.3	0.000	C	2.5	0.000	+ 0.000 V/C
# 18 Hearst Avenue / Gayley Road /	B	17.5	0.778	E	69.0	1.117	+51.498 D/V
# 19 Berkeley Way / Oxford Street	A	7.2	0.419	A	9.9	0.559	+ 2.689 D/V
# 20 University Avenue / Sixth Stre	F	81.2	0.993	F	107.1	1.045	+25.890 D/V
# 21 University Avenue / San Pablo	F	124.2	0.817	F	197.8	1.105	+73.601 D/V
# 22 University Avenue / Martin Lut	C	22.5	0.686	D	40.7	0.986	+18.190 D/V
# 23 University Avenue / Milvia Str	B	16.3	0.448	C	23.0	0.643	+ 6.791 D/V

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Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS Veh	C	LOS Veh	C	
# 24 University Avenue / SB Shattuc	B 18.2	0.585	C 21.7	0.897	+ 3.520 D/V
# 25 University Avenue / NB Shattuc	B 16.8	0.449	B 18.5	0.613	+ 1.700 D/V
# 26 University Avenue / Oxford Str	B 17.2	0.650	C 29.2	0.874	+11.936 D/V
# 27 Univeristy Drive (East Gate)	C 1.5	0.000	C 1.5	0.000	+ 0.000 V/C
# 28 Addison Street / Oxford Street	C 0.8	0.000	E 2.0	0.000	+ 0.000 V/C
# 29 Center Street / SB Shattuck Av	B 14.0	0.469	B 17.3	0.630	+ 3.382 D/V
# 30 Center Street / NB Shattuck Av	A 7.3	0.409	A 9.5	0.551	+ 2.179 D/V
# 31 Center Street / Oxford Street	A 7.3	0.415	B 10.5	0.550	+ 3.210 D/V
# 32 Stadium Rim Road / Gayley Road	D 26.8	0.917	F 82.3	1.230	+ 0.313 V/C
# 33 Allston Way / Oxford Street	D 4.9	0.000	E 6.0	0.000	+ 0.000 V/C
# 34 Kittridge Street / Oxford Stre	F 3.6	0.000	F 18.5	0.000	+ 0.000 V/C
# 35 Stadium Rim Road / Centennial	B 10.5	0.474	B 12.7	0.604	+ 0.131 V/C
# 36 Bancroft Way / Shattuck Avenue	B 12.1	0.637	C 22.1	0.836	+10.074 D/V
# 37 Bancroft Way / Fulton Street	A 6.6	0.380	B 10.3	0.507	+ 3.698 D/V
# 38 Bancroft Way / Ellsworth Stree	C 3.7	0.000	E 6.3	0.000	+ 0.000 V/C
# 39 Bancroft Way / Dana Street	A 0.0	0.000	A 0.0	0.000	+ 0.000 V/C
# 40 Bancroft Way / Telegraph Avenu	B 17.3	0.307	B 19.3	0.414	+ 2.032 D/V
# 41 Bancroft Way / Bowditch Street	B 11.2	0.431	C 16.2	0.669	+ 0.238 V/C
# 42 Bancroft Way / College Avenue	B 11.4	0.511	C 15.3	0.700	+ 0.189 V/C
# 43 Bancroft Way / Piedmont Avenue	C 16.3	0.733	E 36.7	0.979	+ 0.246 V/C
# 44 Durant Avenue / Shattuck Avenu	B 11.6	0.617	C 21.3	0.801	+ 9.741 D/V
# 45 Durant Avenue / Fulton Street	A 6.9	0.346	A 9.9	0.454	+ 3.007 D/V
# 46 Durant Avenue / Telegraph Aven	B 13.0	0.350	B 13.3	0.459	+ 0.295 D/V
# 47 Durant Avenue / College Avenue	B 13.2	0.311	B 13.6	0.427	+ 0.347 D/V
# 48 Durant Avenue / Piedmont Avenu	C 15.9	0.668	D 34.1	0.919	+ 0.252 V/C

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Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS Veh	C	LOS Veh	C	
# 49 Channing Way / Shattuck Avenue	A 5.3	0.699	A 9.2	0.799	+ 3.912 D/V
# 50 Channing Way / Fulton Street	C 15.6	0.642	D 27.6	0.842	+ 0.201 V/C
# 51 Channing Way / Telegraph Avenu	B 12.2	0.338	B 16.4	XXXXX	+ 4.235 D/V
# 52 Channing Way / College Avenue	A 9.7	0.402	B 15.9	0.614	+ 6.199 D/V
# 53 Haste Street / Shattuck Avenue	A 9.0	0.655	B 19.3	1.125	+10.287 D/V
# 54 Haste Street / Fulton Street	B 17.2	0.434	C 22.7	0.549	+ 5.433 D/V
# 55 Haste Street / Telegraph Avenu	B 12.1	0.375	B 14.4	0.483	+ 2.311 D/V
# 56 Haste Street / College Avenue	A 9.0	0.354	B 11.3	0.494	+ 2.389 D/V
# 57 Dwight Way / Martin Luther Kin	B 14.8	0.793	C 28.5	0.993	+13.697 D/V
# 58 Dwight Way / Shattuck Avenue	D 43.3	0.807	B 16.6	0.925	-26.634 D/V
# 59 Dwight Way / Fulton Street	B 13.7	0.526	B 17.3	0.618	+ 3.620 D/V
# 60 Dwight Way / Telegraph Avenue	B 19.4	0.834	C 32.3	0.969	+12.950 D/V
# 61 Dwight Way / College Avenue	B 14.3	0.484	B 14.5	0.614	+ 0.163 D/V
# 62 Dwight Way / Piedmont Avenue /	B 12.8	0.380	B 13.6	0.462	+ 0.748 D/V
# 63 Dwight Avenue / Prospect Stree	B 5.4	0.000	B 5.6	0.000	+ 0.000 V/C
# 64 Adeline Street / Ward Avenue /	C 21.3	0.844	C 32.5	0.997	+11.239 D/V
# 65 Derby Street / Warring Street	F 157.8	1.327	F 308.1	1.813	+ 0.486 V/C
# 66 Derby Street / Claremont Blvd.	B 14.8	0.690	C 34.3	0.864	+19.465 D/V
# 67 Ashby Avenue / Seventh Street	D 46.8	0.911	F 94.5	1.130	+47.722 D/V
# 68 Ashby Avenue / San Pablo Avenu	C 30.1	0.694	D 41.1	0.891	+10.960 D/V
# 69 Ashby Avenue / Adeline Street	D 46.4	0.490	D 39.4	0.627	-6.973 D/V
# 70 Ashby Avenue / Shattuck Avenue	C 26.3	0.709	D 42.5	0.732	+16.242 D/V
# 71 Ashby Avenue / Telegraph Avenu	C 24.9	0.869	C 27.0	1.007	+ 2.071 D/V
# 72 Ashby Avenue / College Avenue	C 25.8	0.912	D 39.0	0.968	+13.253 D/V

                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour

Intersection   Base   Future   Change
                                    Del/   V/   Del/   V/   in
                                LOS Veh   C   LOS Veh   C
73 Ashby Avenue / Claremont Avenu C 21.8 0.638 C 26.6 0.777 + 4.759 D/V

74 Tunnel Road / SR 13   B 12.9 0.738 B 16.4 0.895 + 3.516 D/V

                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour

                    Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #1 Marin Avenue / San Pablo Avenue
****
Cycle (sec):   90   Critical Vol./Cap. (X):   1.164
Loss Time (sec):   16 (Y+R = 4 sec) Average Delay (sec/veh):   96.0
Optimal Cycle: 180   Level Of Service: F
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
------------|---------------||---------------||---------------||---------------|
Control: Protected   Protected   Protected   Protected
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   0   0   0   0   0   0   0   0   0
Lanes: 1 0 1 1 0   1 0 1 1 0   1 0 1 1 0   1 0 1 1 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol: 227 1022   114 169 659   18   18 656   137 145 736   154
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 227 1022   114 169 659   18   18 656   137 145 736   154
Added Vol: 5 117   3   1   20   0   0   3   1   1   18   19
Future: 30 209   50   90 221   28   27 181   10   47 163   90
Initial Fut: 262 1348   167 260 900   46   45 840   148 193 917   263
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 262 1348   167 260 900   46   45 840   148 193 917   263
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 262 1348   167 260 900   46   45 840   148 193 917   263
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   262 1348   167 260 900   46   45 840   148 193 917   263
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.93 0.93 0.95 0.94 0.94 0.95 0.93 0.93 0.95 0.92 0.92
Lanes: 1.00 1.78 0.22 1.00 1.90 0.10 1.00 1.70 0.30 1.00 1.55 0.45
Final Sat.: 1805 3161   392 1805 3410   174 1805 3002   529 1805 2713   778
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.15 0.43 0.43 0.14 0.26 0.26 0.02 0.28 0.28 0.11 0.34 0.34
Crit Moves: ****   ****   ****   ****
Green/Cycle: 0.17 0.37 0.37 0.12 0.32 0.32 0.02 0.24 0.24 0.09 0.31 0.31
Volume/Cap: 0.83 1.16 1.16 1.16 0.83 0.83 1.09 1.16 1.16 1.16 1.09 1.09
Delay/Veh: 53.2 111 111.2 151.2 34.1 34.1 212.9 121 120.9 161.8 87.3 87.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 53.2 111 111.2 151.2 34.1 34.1 212.9 121 120.9 161.8 87.3 87.3
DesignQueue: 11   48   6   12   33   2   2   34   6   9   35   10
****

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                            UC Berkeley LRDP EIR
                         2020 With Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #2 Marin Avenue / The Alameda
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):        0.869
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    22.3
Optimal Cycle:       75          Level Of Service:                C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:        Permitted         Permitted        Permitted        Permitted
Rights:          Include           Include          Include          Include
Min. Green:  25   25   25     25   25   25     23   23   23     23   23   23
Lanes:        0   1   0   1    0   1   0   1    0   1   0   1    0   1   0   1
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    316  322    1     43  178   77     50  534  193     17  480   69
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse: 316  322    1     43  178   77     50  534  193     17  480   69
Added Vol:    21    3    5      0    1    0      0    5    1      1   16    0
Future:      130  110   10     10   30   70     20  200   80     10   70   10
Initial Fut: 467  435   16     53  209  147     70  739  274     28  566   79
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:  467  435   16     53  209  147     70  739  274     28  566   79
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol: 467  435   16     53  209  147     70  739  274     28  566   79
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:  467  435   16     53  209  147     70  739  274     28  566   79
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.61 0.61 0.61   0.70 0.70 0.70   0.78 0.78 0.78   0.80 0.80 0.80
Lanes:      1.00 0.96 0.04   0.26 1.02 0.72   0.13 1.36 0.51   0.08 1.69 0.23
Final Sat.: 1152 1111   41    347 1368  962    192 2031  753    126 2549  356
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.41 0.39 0.39   0.15 0.15 0.15   0.36 0.36 0.36   0.22 0.22 0.22
Crit Moves: ****                                ****
Green/Cycle: 0.47 0.47 0.47  0.47 0.47 0.47   0.42 0.42 0.42   0.42 0.42 0.42
Volume/Cap: 0.87 0.84 0.84   0.33 0.33 0.33   0.87 0.87 0.87   0.53 0.53 0.53
Delay/Veh:  26.4 24.1 24.1   12.4 12.4 12.4   26.9 26.9 26.9   16.8 16.8 16.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh: 26.4 24.1 24.1   12.4 12.4 12.4   26.9 26.9 26.9   16.8 16.8 16.8
DesignQueue:  10   10    0      1    4    3      2   18    7      1   13    2
********************************************************************************
```

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                            UC Berkeley LRDP EIR
                         2020 With Project Conditions
                               PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #3 Gilman Street / Sixth Street
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):        1.267
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   128.7
Optimal Cycle:      180          Level Of Service:                F
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:      L  -  T  -  R     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:        Permitted         Permitted        Permitted        Permitted
Rights:          Include           Include          Include          Include
Min. Green:  19   19   19     19   19   19     19   19   19     19   19   19
Lanes:        0   0   1!  0    0   1   0   1    0   0   1!  0    0   0   1!  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:    346   46  159     24   47   52     28  497  109     53  489   11
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse: 346   46  159     24   47   52     28  497  109     53  489   11
Added Vol:     9    0    0      0    0    0      0    0    2      0    1    0
PasserByVol: 120    0   93     20   90    0      0  193  180    122   41    0
Initial Fut: 475   46  252     44  137   52     28  690  291    175  531   11
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:  475   46  252     44  137   52     28  690  291    175  531   11
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol: 475   46  252     44  137   52     28  690  291    175  531   11
PCE Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:  475   46  252     44  137   52     28  690  291    175  531   11
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.96 0.65 0.65   0.79 0.79 0.79   0.94 0.94 0.94   0.61 0.61 0.61
Lanes:      0.52 0.07 0.41   0.38 1.17 0.45   0.03 0.68 0.29   0.24 0.74 0.02
Final Sat.:  946   92  502    564 1755  666     49 1216  513    282  857   18
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.50 0.50 0.50   0.08 0.08 0.08   0.57 0.57 0.57   0.62 0.62 0.62
Crit Moves:      ****                                              ****
Green/Cycle: 0.27 0.27 0.31  0.31 0.31 0.31   0.63 0.63 0.63   0.63 0.63 0.63
Volume/Cap: 1.85 1.85 1.60   0.25 0.25 0.25   0.90 0.90 0.90   0.99 0.99 0.99
Delay/Veh: 417.0  417 302.4  18.5 18.5 18.5   22.9 22.9 22.9   42.9 42.9 42.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh: 417.0  417 302.4  18.5 18.5 18.5   22.9 22.9 22.9   42.9 42.9 42.9
DesignQueue:  15    1    7      1    4    1      0   12    5      3    9    0
********************************************************************************
```

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--------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #4 Gilman Street / San Pablo Avenue
********************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):        1.070
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):    68.6
Optimal Cycle:      180          Level Of Service:                 E
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            ------------|---------------||---------------||---------------|
Control:       Protected        Protected        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:    4   35   35     4   35   35    31   31   31    31   31   31
Lanes:       1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  0  1! 0  0
            ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:     140 1057    87   126  830  112   174  345  155    40  233   82
Growth Adj:  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  140 1057    87   126  830  112   174  345  155    40  233   82
Added Vol:      1  126     0     0   22    0     0    0    0     0    0    0
PasserByVol:   60  183    40    20  180   30   107   50  120    10   30   44
Initial Fut:  201 1366   127   146 1032  142   281  395  275    50  263  126
User Adj:    1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   201 1366   127   146 1032  142   281  395  275    50  263  126
Reduct Vol:     0    0     0     0    0    0     0    0    0     0    0    0
Reduced Vol:  201 1366   127   146 1032  142   281  395  275    50  263  126
PCE Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   201 1366   127   146 1032  142   281  395  275    50  263  126
            ------------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.94  0.94  0.95 0.93 0.93  0.57 0.57 0.57  0.67 0.67 0.67
Lanes:       1.00 1.83  0.17  1.00 1.76 0.24  0.59 0.83 0.58  0.11 0.60 0.29
Final Sat.:  1805 3260   303  1805 3116  429   636  894  622   146  766  367
            ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.42  0.42  0.08 0.33 0.33  0.44 0.44 0.44  0.34 0.34 0.34
Crit Moves:       ****             ****             ****
Green/Cycle: 0.12 0.39  0.39  0.08 0.35 0.35  0.41 0.41 0.41  0.41 0.41 0.41
Volume/Cap:  0.95 1.07  1.07  1.07 0.95 0.95  1.07 1.07 1.07  0.83 0.83 0.83
Delay/Veh:   94.1 75.7  75.7 143.3 47.1 47.1  80.1 80.1 80.1  40.5 40.5 40.5
User DelAdj: 1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  94.1 75.7  75.7 143.3 47.1 47.1  80.1 80.1 80.1  40.5 40.5 40.5
DesignQueue:   10   52     5     8   41    6    10   14   10     2    9    4
********************************************************************************
```

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--------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #5 Rose Street / Shattuck Avenue
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):        0.759
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    16.3
Optimal Cycle:       52          Level Of Service:                 B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            ------------|---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   17   17   17    17   17   17    27   27   27    27   27   27
Lanes:       1  0  1  1  0   1  0  1  1  0   0  1  0  0  1   0  0  1! 0  0
            ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     159  641    14   112  444   26    69  253   49    29  214  228
Growth Adj:  1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  159  641    14   112  444   26    69  253   49    29  214  228
Added Vol:      0    9     0     1    1    0     0    0    0     0    0    4
Future:        60  230    20    10  220   10    10   10   30    20   10   10
Initial Fut:  219  880    34   123  665   36    79  263   79    49  224  242
User Adj:    1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   219  880    34   123  665   36    79  263   79    49  224  242
Reduct Vol:     0    0     0     0    0    0     0    0    0     0    0    0
Reduced Vol:  219  880    34   123  665   36    79  263   79    49  224  242
PCE Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   219  880    34   123  665   36    79  263   79    49  224  242
            ------------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900 1900  1900 1900 1900  1900 1900 1900

Adjustment:  0.32 0.94  0.94  0.23 0.94 0.94  0.77 0.77 0.85  0.88 0.88 0.88
Lanes:       1.00 1.93  0.07  1.00 1.90 0.10  0.23 0.77 1.00  0.10 0.43 0.47
Final Sat.:   602 3455   133   428 3397  184   338 1125 1615   159  726  784
            ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.36 0.25  0.25  0.29 0.20 0.20  0.23 0.23 0.05  0.31 0.31 0.31
Crit Moves:  ****                                                   ****
Green/Cycle: 0.48 0.48  0.48  0.48 0.48 0.48  0.41 0.41 0.41  0.41 0.41 0.41
Volume/Cap:  0.76 0.53  0.53  0.60 0.41 0.41  0.57 0.57 0.12  0.76 0.76 0.76
Delay/Veh:   26.0 13.1  13.1  18.2 12.0 12.0  17.5 17.5 13.0  22.8 22.8 22.8
User DelAdj: 1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  26.0 13.1  13.1  18.2 12.0 12.0  17.5 17.5 13.0  22.8 22.8 22.8
DesignQueue:    5   19     1     3   14    1     2    6    2     1    6    6
********************************************************************************
```

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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #6 Cedar Street / Martin Luther King Way
*************************************************************************
Cycle (sec):       65          Critical Vol./Cap. (X):       1.086
Loss Time (sec):    8 (Y+R =  5 sec) Average Delay (sec/veh):  51.1
Optimal Cycle:    180          Level Of Service:               D
*************************************************************************
Approach:      North Bound      South Bound       East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  20    20    20    20    20    20    20    20    20    20    20    20
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     53   614    65    30   541    12    20   297    57    68   296    65
Growth Adj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  53   614    65    30   541    12    20   297    57    68   296    65
Added Vol:     2    25     4     0     2     0     0     2     0     1    12     0
Future:       20   210    30    20    80    10    10   110    10    10    30    10
Initial Fut:  75   849    99    50   623    22    30   409    67    79   338    75
User Adj:   1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:   75   849    99    50   623    22    30   409    67    79   338    75
Reduct Vol:    0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  75   849    99    50   623    22    30   409    67    79   338    75
PCE Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Final Vol.:   75   849    99    50   623    22    30   409    67    79   338    75
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment: 0.90  0.90  0.90  0.88  0.88  0.88  0.93  0.93  0.93  0.73  0.73  0.73
Lanes:      0.07  0.83  0.10  0.07  0.90  0.03  0.06  0.81  0.13  0.16  0.69  0.15
Final Sat.:  125  1418   165   121  1505    53   105  1433   235   224   957   212
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.60  0.60  0.60  0.41  0.41  0.41  0.29  0.29  0.29  0.35  0.35  0.35
Crit Moves:        ****                                            ****
Green/Cycle:0.55  0.55  0.55  0.55  0.55  0.55  0.33  0.33  0.33  0.33  0.33  0.33
Volume/Cap: 1.09  1.09  1.09  0.75  0.75  0.75  0.88  0.88  0.88  1.09  1.09  1.09
Delay/Veh:  65.2  65.2  65.2  13.1  13.1  13.1  37.8  37.8  37.8  89.2  89.2  89.2
User DelAdj:1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh: 65.2  65.2  65.2  13.1  13.1  13.1  37.8  37.8  37.8  89.2  89.2  89.2
DesignQueue:   1    16     2     1    11     0     1    11     2     2     9     2
*************************************************************************
```

```
-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #7 Cedar Street / Shattuck Avenue
*************************************************************************
Cycle (sec):       65          Critical Vol./Cap. (X):       0.764
Loss Time (sec):    8 (Y+R =  5 sec) Average Delay (sec/veh):  16.7
Optimal Cycle:     52          Level Of Service:               B
*************************************************************************
Approach:      North Bound      South Bound       East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  20    20    20    20    20    20    22    22    22    22    22    22
Lanes:        1  0  1  1  0    1  0  1  1  0    1  0  0  1  0    1  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    138   795    56   144   619    72    86   275    67    59   341   150
Growth Adj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse: 138   795    56   144   619    72    86   275    67    59   341   150
Added Vol:     0     7     0     0     1     0     0     6     0     1    13     1
Future:       20   230    40    20   210    10    10    80    40    60    20    40
Initial Fut: 158  1032    96   164   830    82    96   361   107   120   374   191
User Adj:   1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:  158  1032    96   164   830    82    96   361   107   120   374   191
Reduct Vol:    0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol: 158  1032    96   164   830    82    96   361   107   120   374   191
PCE Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Final Vol.:  158  1032    96   164   830    82    96   361   107   120   374   191
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment: 0.31  0.94  0.94  0.24  0.94  0.94  0.18  0.97  0.97  0.24  0.95  0.95
Lanes:      1.00  1.83  0.17  1.00  1.82  0.18  1.00  0.77  0.23  1.00  0.66  0.34
Final Sat.:  595  3260   303   460  3243   320   346  1416   420   462  1194   610
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.27  0.32  0.32  0.36  0.26  0.26  0.28  0.25  0.25  0.26  0.31  0.31
Crit Moves:              ****                                      ****
Green/Cycle:0.54  0.53  0.53  0.53  0.53  0.53  0.34  0.34  0.34  0.34  0.34  0.34
Volume/Cap: 0.49  0.60  0.60  0.67  0.48  0.48  0.82  0.75  0.75  0.77  0.93  0.93
Delay/Veh:   7.5   4.0   4.0  16.5   3.2   3.2  64.7  27.3  27.3  48.9  42.8  42.8
User DelAdj:1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  7.5   4.0   4.0  16.5   3.2   3.2  64.7  27.3  27.3  48.9  42.8  42.8
DesignQueue:   3    19     2     3    15     1     2     9     3     3    10     5
*************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #8 Cedar Street / Oxford Street
*******************************************************************************
Cycle (sec):        65          Critical Vol./Cap. (X):        1.103
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   62.5
Optimal Cycle:     180          Level Of Service:                  E
*******************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16   16    16   16   16    16   16   16    16   16   16
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     91  464   81    17  196   17    18  307   57    61  340   31
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  91  464   81    17  196   17    18  307   57    61  340   31
Added Vol:    16  112    0     0   14    2     4    0    2     0   -3    0
future:       40   80   20    10   10    0    20  120   40    50  100   10
Initial Fut: 147  656  101    27  220   19    42  427   99   111  437   41
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 147  656  101    27  220   19    42  427   99   111  437   41
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 147  656  101    27  220   19    42  427   99   111  437   41
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 147  656  101    27  220   19    42  427   99   111  437   41
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.88 0.88 0.88  0.89 0.89 0.89  0.91 0.91 0.91  0.72 0.72 0.72
Lanes:      0.16 0.73 0.11  0.10 0.83 0.07  0.07 0.76 0.17  0.19 0.74 0.07
Final Sat.:  273 1217  187   173 1406  121   128 1306  303   259 1021   96
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.54 0.54 0.54  0.16 0.16 0.16  0.33 0.33 0.33  0.43 0.43 0.43
Crit Moves:      ****                                            ****
Green/Cycle: 0.49 0.49 0.49  0.49 0.49 0.49  0.39 0.39 0.39  0.39 0.39 0.39
Volume/Cap: 1.10 1.10 1.10  0.32 0.32 0.32  0.84 0.84 0.84  1.10 1.10 1.10
Delay/Veh:  80.0 80.0 80.0  11.1 11.1 11.1  30.3 30.3 30.3  90.0 90.0 90.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 80.0 80.0 80.0  11.1 11.1 11.1  30.3 30.3 30.3  90.0 90.0 90.0
DesignQueue:   3   14    2     1    4    0     1   10    2     3   11    1
*******************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #9 Cedar Street / Euclid Avenue
*******************************************************************************
Cycle (sec):        60          Critical Vol./Cap. (X):        0.637
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):   14.0
Optimal Cycle:      42          Level Of Service:                  B
*******************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  17   17   17    17   17   17    17   17   17    17   17    0
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     90  226   29     7  127   44    51  180   49    18   91    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  90  226   29     7  127   44    51  180   49    18   91    0
Added Vol:     0    3    0     0    1    0     3    0    0     0   -2    0
Future:       50   30    0     0   10   20    40  100   40    10   70    0
Initial Fut: 140  259   29     7  138   64    94  280   89    28  159    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 140  259   29     7  138   64    94  280   89    28  159    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 140  259   29     7  138   64    94  280   89    28  159    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 140  259   29     7  138   64    94  280   89    28  159    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.82 0.82 0.82  0.95 0.95 0.95  0.87 0.87 0.87  0.91 0.91 1.00
Lanes:      0.33 0.60 0.07  0.03 0.66 0.31  0.20 0.61 0.19  0.15 0.85 0.00
Final Sat.:  512  948  106    60 1186  550   337 1004  319   259 1468    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.27 0.27 0.27  0.12 0.12 0.12  0.28 0.28 0.28  0.11 0.11 0.00
Crit Moves:      ****                            ****
Green/Cycle: 0.43 0.43 0.43  0.43 0.43 0.43  0.44 0.44 0.44  0.44 0.44 0.00
Volume/Cap: 0.64 0.64 0.64  0.27 0.27 0.27  0.64 0.64 0.64  0.25 0.25 0.00
Delay/Veh:  15.5 15.5 15.5  11.3 11.3 11.3  15.0 15.0 15.0  10.8 10.8  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 15.5 15.5 15.5  11.3 11.3 11.3  15.0 15.0 15.0  10.8 10.8  0.0
DesignQueue:   3    5    1     0    3    1     2    6    2     1    3    0
*******************************************************************************
```

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                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                           PM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #10 Grizzly Peak Blvd / Centennial Drive
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):         0.905
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):   25.2
Optimal Cycle:         0          Level Of Service:               D
********************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign       Stop Sign       Stop Sign       Stop Sign
Rights:         Include         Include         Include         Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:     162   65  250   33   30    8    3  159   45   22  111   25
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  162   65  250   33   30    8    3  159   45   22  111   25
Added Vol:      7    0   39    0    0    0    0    0    0    4    0    0
Future:        10    0   30    0    0    0    0   20   20   10   10    0
Initial Fut:  179   65  319   33   30    8    3  179   65   36  121   25
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume:   199   72  354   37   33    9    3  199   72   40  134   28
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  199   72  354   37   33    9    3  199   72   40  134   28
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   199   72  354   37   33    9    3  199   72   40  134   28
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.32 0.11 0.57 0.47 0.42 0.11 0.01 0.73 0.26 0.20 0.66 0.14
Final Sat.:   220   80  391  239  217   58    7  414  150  108  362   75
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.91 0.91 0.91 0.15 0.15 0.15 0.48 0.48 0.48 0.37 0.37 0.37
Crit Moves:  ****           ****           ****           ****
Delay/Veh:   36.1 36.1 36.1 10.4 10.4 10.4 13.9 13.9 13.9 12.6 12.6 12.6
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  36.1 36.1 36.1 10.4 10.4 10.4 13.9 13.9 13.9 12.6 12.6 12.6
LOS by Move:  E    E    E    B    B    B    B    B    B    B    B    B
ApproachDel:      36.1           10.4           13.9           12.6
Delay Adj:        1.00           1.00           1.00           1.00
ApprAdjDel:       36.1           10.4           13.9           12.6
LOS by Appr:       E              B              B              B
********************************************************************************
```

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                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                           PM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #11 Hearst Avenue / Shattuck Avenue
********************************************************************************
Cycle (sec):          75          Critical Vol./Cap. (X):         0.869
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):   22.6
Optimal Cycle:        77          Level Of Service:               C
********************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  22   22   22    22   22   22    22   22   22    22   22   22
Lanes:        1  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      34  715   63  117  537   54   67  232   20  122  321  136
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   34  715   63  117  537   54   67  232   20  122  321  136
Added Vol:     22    6   -2    0    2    0    0    5    3   31   37    2
Future:        20  160   30   60  240   40   50   20   20   50   20   90
Initial Fut:   76  881   91  177  779   94  117  257   43  203  378  228
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    76  881   91  177  779   94  117  257   43  203  378  228
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   76  881   91  177  779   94  117  257   43  203  378  228
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    76  881   91  177  779   94  117  257   43  203  378  228
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.25 0.94 0.94 0.21 0.93 0.93 0.54 0.54 0.54 0.64 0.64 0.64
Lanes:       1.00 1.81 0.19 1.00 1.78 0.22 0.56 1.23 0.21 0.50 0.94 0.56
Final Sat.:   481 3226  333  397 3170  382  580 1273  213  614 1144  690
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.27 0.27 0.45 0.25 0.25 0.20 0.20 0.20 0.33 0.33 0.33
Crit Moves:            ****           ****                          ****
Green/Cycle: 0.41 0.41 0.41 0.41 0.41 0.41 0.39 0.39 0.39 0.39 0.39 0.39
Volume/Cap:  0.39 0.67 0.67 1.09 0.60 0.60 0.52 0.52 0.52 0.85 0.85 0.85
Delay/Veh:   14.1 12.2 12.2 109.6 11.3 11.3 20.0 20.0 20.0 30.5 30.5 30.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  14.1 12.2 12.2 109.6 11.3 11.3 20.0 20.0 20.0 30.5 30.5 30.5
DesignQueue:    2   23    2    4   20    2    3    7    1    5   10    6
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #12 Hearst Avenue / Oxford Avenue
********************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):        0.961
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     48.7
Optimal Cycle:      121          Level Of Service:                 D
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           -----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   19   19   19    19   19   19    22   22   22    22   22   22
Lanes:         1    0    1  1  0    0    1    0  1  0    0    1    0  1  0    1    1    0  1  0
           -----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      80  743  315    30  458   25    23  267  115   313  478   52
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   80  743  315    30  458   25    23  267  115   313  478   52
Added Vol:     -1  103   11    17   48   24     2    2    0    42   46    4
Future:        30  110   40    10   70   20     0   80   40    40 1120   10
Initial Fut:  109  956  366    57  576   69    25  349  155   395 1644   66
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   109  956  366    57  576   69    25  349  155   395 1644   66
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  109  956  366    57  576   69    25  349  155   395 1644   66
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   109  956  366    57  576   69    25  349  155   395 1644   66
           -----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.17 0.91 0.91  0.89 0.89 0.89  0.87 0.87 0.87  0.95 0.95 0.95
Lanes:       1.00 1.45 0.55  0.16 1.64 0.20  0.09 1.32 0.59  1.00 1.92 0.08
Final Sat.:   319 2501  957   276 2786  334   156 2174  966  1796 3453  139
           -----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.34 0.38 0.38  0.21 0.21 0.21  0.16 0.16 0.16  0.22 0.48 0.48
Crit Moves:       ****                                           ****
Green/Cycle: 0.32 0.32 0.32  0.32 0.32 0.32  0.58 0.58 0.58  0.58 0.58 0.58
Volume/Cap:  1.07 1.20 1.20  0.65 0.65 0.65  0.28 0.28 0.28  0.38 0.83 0.83
Delay/Veh:  135.5  125 124.6  24.4 24.4 24.4   8.4  8.4  8.4   8.9 16.2 16.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 135.5  125 124.6  24.4 24.4 24.4   8.4  8.4  8.4   8.9 16.2 16.2
DesignQueue:    3   30   11     2   17    2     0    6    3     7   33    1
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #13 Hearst Avenue / Spruce Street
********************************************************************************
Average Delay (sec/veh):     2.7        Worst Case Level Of Service:      C
********************************************************************************
Approach:      North Bound       South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           -----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign         Stop Sign       Uncontrolled      Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  1  0  0    0  0  1  1  0
           -----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       0    0    0    11    0   48    34  579    0     0  792   13
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0    0    0    11    0   48    34  579    0     0  792   13
Added Vol:      0    0    0     1    0    0     0   29    0     0   92    3
Future:         0    0    0     0    0   20     0  130    0     0  170    0
Initial Fut:    0    0    0    12    0   68    34  738    0     0 1054   16
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0    0    0    12    0   68    34  738    0     0 1054   16
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:     0    0    0    12    0   68    34  738    0     0 1054   16
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.8 xxxx   6.9   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5 xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
           -----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  1499 xxxx   535  1070 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   115 xxxx   495   659 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   111 xxxx   495   659 xxxx xxxxx  xxxx xxxx xxxxx
           -----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  10.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *     *    *    *     B    *    *     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  325 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 19.6 xxxxx  10.8 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *     *    C    *     B    *    *     *    *    *
ApproachDel:    xxxxxx            19.6            xxxxxx            xxxxxx
ApproachLOS:       *                 C                 *                 *
```

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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #14 Hearst Avenue / Arch Street / Le Conte Avenue
********************************************************************************
Average Delay (sec/veh):     2.0        Worst Case Level Of Service:        C
********************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign       Stop Sign       Uncontrolled    Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:       0  0  0  0  0   0  0  1! 0  0    1  0  2  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    0    0    0    6    0  135  146  439    0    0  668    6
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0    0    0    6    0  135  146  439    0    0  668    6
Added Vol:   0    0    0    0    0    0    3   26    0    0   96    0
Future:      0    0    0    0    0   40   50  100    0    0  150    0
Initial Fut: 0    0    0    6    0  175  199  565    0    0  914    6
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  0    0    0    6    0  175  199  565    0    0  914    6
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:  0    0    0    6    0  175  199  565    0    0  914    6
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.8 xxxx   6.9   4.1 xxxx xxxxx xxxxx xxxx xxxxx

FollowUpTim:xxxxx xxxx xxxxx   3.5 xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  1598 xxxx   460   920 xxxx xxxxx xxxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx    99 xxxx   554   750 xxxx xxxxx xxxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx    79 xxxx   554   750 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  11.5 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *    *    *    *    B    *    *    *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  461   xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 17.7 xxxxx xxxxx xxxxx xxxx xxxx xxxxx
Shared LOS:   *    *    *    *    C    *    *    *    *    *    *    *
ApproachDel:   xxxxxx            17.7          xxxxxx           xxxxxx
ApproachLOS:       *              C              *              *
```

```
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #15 Hearst Avenue / Scenic Avenue
********************************************************************************
Average Delay (sec/veh):     0.9        Worst Case Level Of Service:        B
********************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign       Stop Sign       Uncontrolled    Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:       0  0  0  0  0   0  0  0  0  1    0  0  2  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00-6:00 PM
Base Vol:    0    0    0    0    0  109    0  437    0    0  566   54
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0    0    0    0    0  109    0  437    0    0  566   54
Added Vol:   0    0    0    0    0   11    0    0    0    0   84    0
Future:      0    0    0    0    0   30    0  100    0    0  140   10
Initial Fut: 0    0    0    0    0  150    0  537    0    0  790   64
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  0    0    0    0    0  150    0  537    0    0  790   64
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:  0    0    0    0    0  150    0  537    0    0  790   64
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx   427   xxxx xxxx xxxxx xxxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx   582   xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx   582   xxxx xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx  13.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *    *    *    *    B    *    *    *    *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *    *    *    *    *    *    *    *    *    *    *
ApproachDel:   xxxxxx            13.3          xxxxxx           xxxxxx
ApproachLOS:       *              B              *              *
```

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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #16 Hearst Avenue / Euclid Avenue
*******************************************************************************
Cycle (sec):        80          Critical Vol./Cap. (X):         0.632
Loss Time (sec):    12 (Y+R =  3 sec) Average Delay (sec/veh):    17.2
Optimal Cycle:      53          Level Of Service:                  B
*******************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:     0    0    0   25    0   25    5   16    0   16   16   16
Lanes:          0 0  1! 0  0    0 0  1! 0  0    1 0  1  0  0    0 0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:       4    0    1   57    0  115  120  307    0    2  503   23
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    4    0    1   57    0  115  120  307    0    2  503   23
Added Vol:      0    0    0    0    0    0    0   26    0    0   74    3
Future:         0    0    0   10    0   40   40   80    0    0  130   10
Initial Fut:    4    0    1   67    0  155  160  413    0    2  707   36
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     4    0    1   67    0  155  160  413    0    2  707   36
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    4    0    1   67    0  155  160  413    0    2  707   36
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:     4    0    1   67    0  155  160  413    0    2  707   36
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.86 1.00 0.86 0.82 1.00 0.82 0.56 1.00 1.00 0.99 0.99 0.99
Lanes:       0.80 0.00 0.20 0.30 0.00 0.70 1.00 1.00 0.00 0.01 0.95 0.04
Final Sat.:  1307    0  327  470    0 1088 1058 1900    0    5 1792   91
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.14 0.00 0.14 0.15 0.22 0.00 0.39 0.39 0.39
Crit Moves:                 ****                            ****
Green/Cycle: 0.31 0.00 0.31 0.31 0.00 0.31 0.54 0.54 0.00 0.54 0.54 0.54
Volume/Cap:  0.01 0.00 0.01 0.46 0.00 0.46 0.28 0.40 0.00 0.73 0.73 0.73
Delay/Veh:   19.0  0.0 19.0 25.1  0.0 25.1 11.3 12.1  0.0 18.8 18.8 18.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  19.0  0.0 19.0 25.1  0.0 25.1 11.3 12.1  0.0 18.8 18.8 18.8
DesignQueue:    0    0    0    2    0    5    3    9    0    0   16    1
*******************************************************************************
```

```
-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
*******************************************************************************
Intersection #17 Hearst Avenue / Le Roy Avenue
*******************************************************************************
Average Delay (sec/veh):      2.5        Worst Case Level Of Service:      C
*******************************************************************************
Approach:    North Bound      South Bound      East Bound       West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign      Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:       0 0  0  0  0    0 0  1! 0  0    0 1  0  0  0    0 0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:       0    0    0   12    0   56   38  355    0    0  523   21
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    0    0    0   12    0   56   38  355    0    0  523   21
Added Vol:      0    0    0    0    0    0    0   27    0    0   76    0
Future:         0    0    0    0    0   10   20   90    0    0  140   10
Initial Fut:    0    0    0   12    0   66   58  472    0    0  739   31
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     0    0    0   12    0   66   58  472    0    0  739   31
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:     0    0    0   12    0   66   58  472    0    0  739   31
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx  6.2  4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx 1331 xxxx  755  770 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  163 xxxx  412  854 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  154 xxxx  412  854 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  9.5 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *     *     *    *     *     A    *     *     *    *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  328 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx 19.4 xxxxx  9.5 xxxx xxxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   *    *     *     *    C     *     A    *     *     *    *     *
ApproachDel:    xxxxxx          19.4           xxxxxx           xxxxxx
ApproachLOS:       *             C                *                *
```

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                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #18 Hearst Avenue / Gayley Road / LaLoma Avenue
********************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):         1.117
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    69.0
Optimal Cycle:     180          Level Of Service:                   E
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    17   17   17    17   17   17
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  1
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:    318  288   19    4  203   49   28   52  288   69  197   40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 318  288   19    4  203   49   28   52  288   69  197   40
Added Vol:    26   28    7    0   12    0    0    6   20    8   50    0
Future:       90   30   10    0    0   20   20   30   60   10   60   10
Initial Fut: 434  346   36    4  215   69   48   88  368   87  307   50
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  434  346   36    4  215   69   48   88  368   87  307   50
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 434  346   36    4  215   69   48   88  368   87  307   50
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  434  346   36    4  215   69   48   88  368   87  307   50
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.68 0.68 0.68 0.96 0.96 0.96 0.74 0.74 0.74 0.73 0.73 0.85
Lanes:      0.54 0.42 0.04 0.01 0.75 0.24 0.10 0.17 0.73 0.22 0.78 1.00
Final Sat.:  687  548   57   25 1362  437  134  246 1030  305 1076 1615
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.63 0.63 0.63 0.16 0.16 0.16 0.36 0.36 0.36 0.29 0.29 0.03
Crit Moves:       ****                        ****
Green/Cycle:0.57 0.57 0.57 0.57 0.57 0.57 0.32 0.32 0.32 0.32 0.32 0.32
Volume/Cap: 1.12 1.12 1.12 0.28 0.28 0.28 1.12 1.12 1.12 0.89 0.89 0.10
Delay/Veh:  85.3 85.3 85.3  8.5  8.5  8.5 101.2  101 101.2 44.7 44.7 16.6
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 85.3 85.3 85.3  8.5  8.5  8.5 101.2  101 101.2 44.7 44.7 16.6
DesignQueue:   8    7    1    0    4    1    1    3   10    2    9    1
********************************************************************************
```

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                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #19 Berkeley Way / Oxford Street
********************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):         0.559
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     9.9
Optimal Cycle:      46          Level Of Service:                   A
********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    20   20   20    20   20   20
Lanes:        1  0  1  1  0   1  0  1  1  0   0  0  1! 0  0   1  0  0  1  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     48 1039    3    4  890   22   72    2   51   29   18   42
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  48 1039    3    4  890   22   72    2   51   29   18   42
Added Vol:     5   90    0    0   87    3   23    0   34    0    0    0
Future:       20  160    0    0  170    0   10    0   10   20    0   10
Initial Fut:  73 1289    3    4 1147   25  105    2   95   49   18   52
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   73 1289    3    4 1147   25  105    2   95   49   18   52
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  73 1289    3    4 1147   25  105    2   95   49   18   52
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   73 1289    3    4 1147   25  105    2   95   49   18   52
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.19 0.95 0.95 0.16 0.95 0.95 0.75 0.75 0.75 0.75 0.89 0.89
Lanes:      1.00 1.99 0.01 1.00 1.96 0.04 0.52 0.01 0.47 1.00 0.26 0.74
Final Sat.:  355 3602    8  295 3522   77  741   14  671 1423  434 1255
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.21 0.36 0.36 0.01 0.33 0.33 0.14 0.14 0.14 0.03 0.04 0.04
Crit Moves:       ****                        ****
Green/Cycle:0.63 0.63 0.63 0.63 0.63 0.63 0.27 0.27 0.27 0.27 0.27 0.27
Volume/Cap: 0.33 0.57 0.57 0.02 0.52 0.52 0.53 0.53 0.53 0.13 0.16 0.16
Delay/Veh:   7.4  8.5  8.5  5.3  8.0  8.0 24.9 24.9 24.9 21.0 21.2 21.2
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  7.4  8.5  8.5  5.3  8.0  8.0 24.9 24.9 24.9 21.0 21.2 21.2
DesignQueue:   1   22    0    0   19    0    3    0    3    2    1    2
********************************************************************************
```

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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #20 University Avenue / Sixth Street
********************************************************************************
Cycle (sec):        128          Critical Vol./Cap. (X):        1.045
Loss Time (sec):     16 (Y+R =  5 sec) Average Delay (sec/veh):   107.1
Optimal Cycle:      180          Level Of Service:                  F
********************************************************************************
Approach:          North Bound      South Bound       East Bound        West Bound
Movement:      L  -  T  - R    L  -  T  - R    L  -  T  - R    L  -  T  - R
------------|---------------||---------------||---------------||---------------|
Control:       Prot+Permit       Permitted        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:    6   23   23    0   23   23    6   15   15    6   15   15
Lanes:         1  0  1  0  1  1  0  1  0  1  1  0  1  1  0  1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:      343  353   48   101  239  465   163  827  212    42 1205   33
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   343  353   48   101  239  465   163  827  212    42 1205   33
Added Vol:       0    4    2     0   19    8     1   36    0     5  264    0
Future:         10   70   40   100  130  100    20  200   20    20  120   10
Initial Fut:   353  427   90   201  388  573   184 1063  232    67 1589   43
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    353  427   90   201  388  573   184 1063  232    67 1589   43
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   353  427   90   201  388  573   184 1063  232    67 1589   43
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    353  427   90   201  388  573   184 1063  232    67 1589   43
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.98 1.00 0.85  1.00 1.00 0.85  0.95 0.92 0.92  0.95 0.95 0.95
Lanes:        1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.64 0.36  1.00 1.95 0.05
Final Sat.:   1855 1900 1615  1900 1900 1615  1805 2883  629  1805 3501   95
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.19 0.22 0.06  0.11 0.20 0.35  0.10 0.37 0.37  0.04 0.45 0.45
Crit Moves:   ****                       **** ****                 ****
Green/Cycle:  0.33 0.33 0.33  0.28 0.28 0.28  0.08 0.39 0.39  0.05 0.36 0.36
Volume/Cap:   0.58 0.68 0.17  0.38 0.73 1.26  1.26 0.94 0.94  0.79 1.26 1.26
Delay/Veh:    57.3 42.9 31.1  39.1 50.1 181.6 221.1 50.8 50.8  112.4 166 166.3
User DelAdj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   57.3 42.9 31.1  39.1 50.1 181.6 221.1 50.8 50.8  112.4 166 166.3
DesignQueue:    22   22    4    11   21   32    12   50   11     5   82    2
********************************************************************************
```

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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #21 University Avenue / San Pablo Avenue
********************************************************************************
Cycle (sec):        128          Critical Vol./Cap. (X):        1.105
Loss Time (sec):     16 (Y+R =  4 sec) Average Delay (sec/veh):   197.8
Optimal Cycle:      180          Level Of Service:                  F
********************************************************************************
Approach:          North Bound      South Bound       East Bound        West Bound
Movement:      L  -  T  - R    L  -  T  - R    L  -  T  - R    L  -  T  - R
------------|---------------||---------------||---------------||---------------|
Control:         Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:    5   21   21    5   21   21    5   22   22    5   22   22
Lanes:         1  0  1  1  0  1  0  1  1  0  1  0  1  1  0  1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:      233  945   93   141  681   84    87  986  105    71  906  125
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   233  945   93   141  681   84    87  986  105    71  906  125
Added Vol:       1   19    1    10    8    0     0   38    0     6  268   80
Future:         50   90   10    20  220   60    90  190   80    10   60   20
Initial Fut:   284 1054  104   171  909  144   177 1214  185    87 1234  225
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    284 1054  104   171  909  144   177 1214  185    87 1234  225
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   284 1054  104   171  909  144   177 1214  185    87 1234  225
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    284 1054  104   171  909  144   177 1214  185    87 1234  225
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.95 0.94 0.94  0.95 0.93 0.93  0.95 0.93 0.93  0.95 0.93 0.93
Lanes:        1.00 1.82 0.18  1.00 1.73 0.27  1.00 1.74 0.26  1.00 1.69 0.31
Final Sat.:   1805 3243  320  1805 3051  483  1805 3070  468  1805 2983  544
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.16 0.33 0.33  0.09 0.30 0.30  0.10 0.40 0.40  0.05 0.41 0.41
Crit Moves:   ****                  ****           ****                 ****
Green/Cycle:  0.14 0.28 0.28  0.09 0.28 0.28  0.09 0.21 0.21  0.05 0.37 0.37
Volume/Cap:   1.12 1.16 1.16  1.00 1.06 1.06  1.12 1.88 1.88  0.97 1.12 1.12
Delay/Veh:    149.3 130 129.7 126.6 93.3 93.3 167.5 453 453.0 149.3 107 107.0
User DelAdj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   149.3 130 129.7 126.6 93.3 93.3 167.5 453 453.0 149.3 107 107.0
DesignQueue:    18   59    6    11   50    8    12   76   12     6   62   11
********************************************************************************
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                            UC Berkeley LRDP EIR
                        2020 With Project Conditions
                              PM Peak Hour
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                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #22 University Avenue / Martin Luther King Way
********************************************************************************
Cycle (sec):          85          Critical Vol./Cap. (X):         0.986
Loss Time (sec):      12 (Y+R =  5 sec) Average Delay (sec/veh):     40.7
Optimal Cycle:       180          Level Of Service:                   D
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Prot+Permit       Permitted        Permitted        Permitted
Rights:          Include           Include          Include          Include
Min. Green:    5   23   23    23   23   23    17   17   17    17   17   17
Lanes:        1  0  1  1  0  1  0  1  1  0  1  0  1  1  0  1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     282  902   78    46  702   77    80  679  134    71  727   81
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  282  902   78    46  702   77    80  679  134    71  727   81
Added Vol:     12   25    0     0    3    1     0   49    0     3  343    0
Future:        30  200   20    30   60   10    30  170   40    10   70   10
Initial Fut:  324 1127   98    76  765   88   110  898  174    84 1140   91
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   324 1127   98    76  765   88   110  898  174    84 1140   91
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  324 1127   98    76  765   88   110  898  174    84 1140   91
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   324 1127   98    76  765   88   110  898  174    84 1140   91
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.37 0.94 0.94  0.13 0.94 0.94  0.14 0.93 0.93  0.14 0.94 0.94
Lanes:       1.00 1.84 0.16  1.00 1.79 0.21  1.00 1.68 0.32  1.00 1.85 0.15
Final Sat.:   709 3281  285   251 3189  367   268 2951  572   268 3306  264
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.46 0.34 0.34  0.30 0.24 0.24  0.41 0.30 0.30  0.31 0.34 0.34
Crit Moves:  ****            ****            ****
Green/Cycle: 0.52 0.52 0.52  0.39 0.39 0.39  0.33 0.33 0.33  0.33 0.33 0.33
Volume/Cap:  0.88 0.66 0.66  0.78 0.62 0.62  1.23 0.91 0.91  0.94 1.03 1.03
Delay/Veh:   37.8 12.8 12.8  66.6 21.2 21.2 198.4 39.4 39.4 107.5 63.7 63.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  37.8 12.8 12.8  66.6 21.2 21.2 198.4 39.4 39.4 107.5 63.7 63.7
DesignQueue:   14   28    2     2   24    3     4   31    6     3   39    3
********************************************************************************
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                            UC Berkeley LRDP EIR
                        2020 With Project Conditions
                              PM Peak Hour
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                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #23 University Avenue / Milvia Street
********************************************************************************
Cycle (sec):          75          Critical Vol./Cap. (X):         0.643
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):     23.0
Optimal Cycle:        49          Level Of Service:                   C
********************************************************************************
Approach:        North Bound      South Bound      East Bound       West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted         Permitted        Permitted        Permitted
Rights:          Include           Include          Include          Include
Min. Green:   21   21   21    21   21   21    20   20   20    20   20   20
Lanes:        1  0  0  1  0  0  0  1! 0  0  0  1  0  1  0  0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     127  218   44    13  102   74    47  649  108    22  651   33
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  127  218   44    13  102   74    47  649  108    22  651   33
Added Vol:      0    0    0     0    0    0     0   50    0     0  346    0
Future:        10   10   10    10   10   10    20  180   20    10   80   20
Initial Fut:  137  228   54    23  112   84    67  879  128    32 1077   53
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   137  228   54    23  112   84    67  879  128    32 1077   53
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  137  228   54    23  112   84    67  879  128    32 1077   53
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   137  228   54    23  112   84    67  879  128    32 1077   53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.70 0.97 0.97  0.90 0.90 0.90  0.67 0.67 0.67  0.85 0.85 0.85
Lanes:       1.00 0.81 0.19  0.11 0.51 0.38  0.12 1.64 0.24  0.06 1.85 0.09
Final Sat.:  1336 1492  353   180  875  656   159 2086  304    89 2990  147
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.15 0.15  0.13 0.13 0.13  0.42 0.42 0.42  0.36 0.36 0.36
Crit Moves:       ****                             ****
Green/Cycle: 0.35 0.35 0.35  0.35 0.35 0.35  0.47 0.47 0.47  0.47 0.47 0.47
Volume/Cap:  0.30 0.44 0.44  0.37 0.37 0.37  0.89 0.89 0.89  0.76 0.76 0.76
Delay/Veh:   19.5 21.1 21.1  20.1 20.1 20.1  28.0 28.0 28.0  19.9 19.9 19.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  19.5 21.1 21.1  20.1 20.1 20.1  28.0 28.0 28.0  19.9 19.9 19.9
DesignQueue:    4    6    2     1    3    2     2   21    3     1   26    1
********************************************************************************
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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #24 University Avenue / SB Shattuck Avenue
*************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):       0.897
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    21.7
Optimal Cycle:       86          Level Of Service:                 C
*************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Permitted         Permitted         Permitted         Permitted
Rights:        Include           Include           Include           Include
Min. Green:   0    0    0    16   16   16    16   16   16    16   16   16
Lanes:        0  0  0  0  0   0  1  1  1  0   1  0  1  1  0   0  1  0  1  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0    0    0    55  576  146   131  374  254    74  642  640
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0    0    0    55  576  146   131  374  254    74  642  640
Added Vol:    0    0    0     0   74   50     7   27   16     4  296    5
Future:       0    0    0    30  230   30    40  100   50    10   80  130
Initial Fut:  0    0    0    85  880  226   178  501  320    88 1018  775
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0    0    0    85  880  226   178  501  320    88 1018  775
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0    0    0    85  880  226   178  501  320    88 1018  775
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0    0    0    85  880  226   178  501  320    88 1018  775
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  0.77 0.77 0.77  0.18 0.81 0.81  0.68 0.68 0.68
Lanes:      0.00 0.00 0.00  0.21 2.22 0.57  1.00 1.22 0.78  0.14 1.62 1.24
Final Sat.:   0    0    0   315 3259  837   335 1868 1193   181 2088 1590
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.00 0.00 0.00  0.27 0.27 0.27  0.53 0.27 0.27  0.49 0.49 0.49
Crit Moves:                  ****            ****
Green/Cycle: 0.00 0.00 0.00 0.30 0.30 0.30  0.59 0.59 0.59  0.59 0.59 0.59
Volume/Cap: 0.00 0.00 0.00  0.90 0.90 0.90  0.90 0.45 0.45  0.82 0.82 0.82
Delay/Veh:  0.0  0.0  0.0  34.8 34.8 34.8  54.9  9.3  9.3  15.7 15.7 15.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 0.0  0.0  0.0  34.8 34.8 34.8  54.9  9.3  9.3  15.7 15.7 15.7
DesignQueue:  0    0    0     3   27    7     3    9    6     2   19   14
*************************************************************************
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-------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #25 University Avenue / NB Shattuck Avenue
*************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):       0.613
Loss Time (sec):     15 (Y+R =  4 sec) Average Delay (sec/veh):    18.5
Optimal Cycle:       53          Level Of Service:                 B
*************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Protected         Protected         Protected         Protected
Rights:        Include           Include           Include           Include
Min. Green:  19    0   19     0    0    0     0   13    0     0   13    0
Lanes:        2  0  1! 0  1   0  0  0  0  0   0  0  2  0  0   0  0  2  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:   938    0  208     0    0    0     0  454    0     0  433    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 938   0  208     0    0    0     0  454    0     0  433    0
Added Vol:  155    0   12     0    0    0     0   27    0     0  150    0
Future:     150    0   40     0    0    0     0    0    0     0   70    0
Initial Fut: 1243  0  260     0    0    0     0  481    0     0  653    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 1243   0  260     0    0    0     0  481    0     0  653    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 1243  0  260     0    0    0     0  481    0     0  653    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 1243   0  260     0    0    0     0  481    0     0  653    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.82 1.00 0.84  1.00 1.00 1.00  1.00 0.86 1.00  1.00 0.86 1.00
Lanes:      2.77 0.00 1.23  0.00 0.00 0.00  0.00 2.00 0.00  0.00 2.00 0.00
Final Sat.: 4291   0 1972     0    0    0     0 3249    0     0 3249    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:   0.29 0.00 0.13  0.00 0.00 0.00  0.00 0.15 0.00  0.00 0.20 0.00
Crit Moves: ****                              ****            ****
Green/Cycle: 0.47 0.00 0.47 0.00 0.00 0.00  0.00 0.33 0.00  0.00 0.33 0.00
Volume/Cap: 0.61 0.00 0.28  0.00 0.00 0.00  0.00 0.45 0.00  0.00 0.61 0.00
Delay/Veh: 15.9  0.0 12.2   0.0  0.0  0.0   0.0 21.3  0.0   0.0 23.9  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 15.9  0.0 12.2   0.0  0.0  0.0   0.0 21.3  0.0   0.0 23.9  0.0
DesignQueue: 29    0    6     0    0    0     0   14    0     0   19    0
*************************************************************************
```

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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #26 University Avenue / Oxford Street
********************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):        0.874
Loss Time (sec):     4 (Y+R =  4 sec) Average Delay (sec/veh):    29.2
Optimal Cycle:     123          Level Of Service:                C
********************************************************************************
Approach:        North Bound      South Bound       East Bound       West Bound
Movement:       L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            -----------|--------------||---------------||---------------||--------------|
Control:        Prot+Permit         Permitted         Permitted         Permitted
Rights:           Include           Include           Include           Include
Min. Green:   18   18   18    18   18   18    18   18   18    18   18   18
Lanes:      1  0  1  1  0    1  0  1  1  0    1  1  0  0  1    0  0  1! 0  0
            -----------|--------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 12 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    278  771   16    32  835  106   306   39  330     9   37   40
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 278  771   16    32  835  106   306   39  330     9   37   40
Added Vol:    90   75    0     0   55   66    22   -1   19    -2   -6   -2
Future:       50  130    0    10  160   30    20   10   20     0   10   10
Initial Fut: 418  976   16    42 1050  202   348   48  369     7   41   48
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  418  976   16    42 1050  202   348   48  369     7   41   48
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 418  976   16    42 1050  202   348   48  369     7   41   48
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  418  976   16    42 1050  202   348   48  369     7   41   48
            -----------|--------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.41 0.85 0.85  0.24 0.83 0.83  0.59 0.59 0.77  0.83 0.83 0.83
Lanes:      1.00 1.97 0.03  1.00 1.68 0.32  1.76 0.24 1.00  0.07 0.43 0.50
Final Sat.:  775 3190   52   458 2659  512  1984  274 1454   115  673  787
            -----------|--------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.54 0.31 0.31  0.09 0.39 0.39  0.18 0.18 0.25  0.06 0.06 0.06
Crit Moves: ****                ****                ****
Green/Cycle: 0.68 0.68 0.68  0.41 0.41 0.41  0.27 0.27 0.27  0.27 0.27 0.27
Volume/Cap: 0.79 0.45 0.45  0.22 0.96 0.96  0.66 0.66 0.96  0.23 0.23 0.23
Delay/Veh:  29.0  6.1  6.1  16.9 37.9 37.9  30.2 30.2 63.3  22.8 22.8 22.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 29.0  6.1  6.1  16.9 37.9 37.9  30.2 30.2 63.3  22.8 22.8 22.8
DesignQueue:  14   14    0     1   28    5    11    2   12     0    1    1
********************************************************************************
```

```
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #27 Univeristy Drive (East Gate)  / Gayley Road
********************************************************************************
Average Delay (sec/veh):        1.5         Worst Case Level Of Service:      C
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           ------------|--------------||---------------||---------------||--------------|
Control:       Uncontrolled       Uncontrolled        Stop Sign         Stop Sign
Rights:           Include           Include           Include           Include
Lanes:      1  0  1  0  0    0  0  0  1  0    1  0  0  0  1    0  0  0  0  0
           ------------|--------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:     59  552    0     0  505   52    41    0   81     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  59  552    0     0  505   52    41    0   81     0    0    0
Added Vol:    -2   80    0     0   43   -3   -19    0  -12     0    0    0
Future:       20  110    0     0   60   10    10    0   20     0    0    0
Initial Fut:  77  742    0     0  608   59    32    0   89     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   77  742    0     0  608   59    32    0   89     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:   77  742    0     0  608   59    32    0   89     0    0    0
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
           ------------|--------------||---------------||---------------||--------------|
Capacity Module:
Cnflict Vol: 667 xxxx xxxxx  xxxx xxxx xxxxx  1534 xxxx   638 xxxx xxxx xxxxx
Potent Cap.: 932 xxxx xxxxx  xxxx xxxx xxxxx   130 xxxx   481 xxxx xxxx xxxxx
Move Cap.:   932 xxxx xxxxx  xxxx xxxx xxxxx   121 xxxx   481 xxxx xxxx xxxxx
           ------------|--------------||---------------||---------------||--------------|
Level Of Service Module:
Stopped Del: 9.2 xxxx xxxxx xxxxx xxxx xxxxx  45.0 xxxx  14.2 xxxxx xxxx xxxxx
LOS by Move:  A    *     *     *     *     *     E    *     B     *    *     *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *     *     *     *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx            22.3           xxxxxx
ApproachLOS:       *                *                C                *
```

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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06          Page 36-1          CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06          Page 37-1
-----------------------------------------------------------------------          -----------------------------------------------------------------------
                      UC Berkeley LRDP EIR                                                              UC Berkeley LRDP EIR
                   2020 With Project Conditions                                                      2020 With Project Conditions
                          PM Peak Hour                                                                      PM Peak Hour
-----------------------------------------------------------------------          -----------------------------------------------------------------------
                Level Of Service Computation Report                                              Level Of Service Computation Report
      2000 HCM Unsignalized Method (Future Volume Alternative)                          2000 HCM Operations Method (Future Volume Alternative)
***********************************************************************          ***********************************************************************
Intersection #28 Addison Street / Oxford Street                                  Intersection #29 Center Street / SB Shattuck Avenue
***********************************************************************          ***********************************************************************
Average Delay (sec/veh):    2.0      Worst Case Level Of Service:     E          Cycle (sec):        75          Critical Vol./Cap. (X):      0.630
***********************************************************************          Loss Time (sec):    12 (Y+R = 10 sec) Average Delay (sec/veh):   17.3
Approach:    North Bound     South Bound     East Bound     West Bound          Optimal Cycle:      67          Level Of Service:               B
Movement:    L - T - R     L - T - R     L - T - R     L - T - R                ***********************************************************************
-----------|---------------||---------------||---------------||---------------| Approach:     North Bound     South Bound     East Bound     West Bound
Control:      Uncontrolled     Uncontrolled     Stop Sign     Stop Sign         Movement:     L - T - R     L - T - R     L - T - R     L - T - R
Rights:        Include       Include       Include       Include               -----------|---------------||---------------||---------------||---------------|
Lanes:      1 0 2 0 0     0 0 1 1 0     0 0 1!0 0     0 0 0 0 0                   Control:       Permitted       Permitted       Permitted       Permitted
-----------|---------------||---------------||---------------||---------------| Rights:         Include         Include         Include         Include
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    32 1006     0     0 952     28     10     0 114     0     0     0   Min. Green:    0     0     0     30     30     30     0     17     17     25     25     0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00         Lanes:       0 0 0 0 0     0 1 1 1 0     0 0 0 1 0     0 1 0 0 0
Initial Bse: 32 1006     0     0 952     28     10     0 114     0     0     0   -----------|---------------||---------------||---------------||---------------|
Added Vol:    3 149     0     0     70     2     16     0     18     0     0     0 Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Future:      10 180     0     0 170     10     0     0     10     0     0     0   Base Vol:     0     0     0     41 790 126     0 104 179     29 160     0
Initial Fut: 45 1335     0     0 1192     40     26     0 142     0     0     0   Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00         Initial Bse:   0     0     0     41 790 126     0 104 179     29 160     0
PHF Adj:    0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94         Added Vol:     0     0     0     0 105     0     0     0     0     -2     2     0
PHF Volume:  48 1420     0     0 1268     43     28     0 151     0     0     0   Future:       0     0     0     10 230     40     0     50     30     30     40     0
Reduct Vol:   0     0     0     0     0     0     0     0     0     0     0     0 Initial Fut:   0     0     0     51 1125 166     0 154 209     57 202     0
Final Vol.:  48 1420     0     0 1268     43     28     0 151     0     0     0   User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Critical Gap Module:                                                             PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx     6.8 xxxx     6.9 xxxxx xxxx xxxxx PHF Volume:    0     0     0     51 1125 166     0 154 209     57 202     0
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx     3.5 xxxx     3.3 xxxxx xxxx xxxxx Reduct Vol:    0     0     0     0     0     0     0     0     0     0     0     0
-----------|---------------||---------------||---------------||---------------| Reduced Vol:   0     0     0     51 1125 166     0 154 209     57 202     0
Capacity Module:                                                                 PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Cnflict Vol: 926 xxxx xxxxx xxxx xxxx xxxxx     1710 xxxx     83 xxxxx xxxx xxxxx MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Potent Cap.: 581 xxxx xxxxx     xxxx xxxx xxxxx     61 xxxx 752 xxxxx xxxx xxxxx Final Vol.:    0     0     0     51 1125 166     0 154 209     57 202     0
Move Cap.:   581 xxxx xxxxx     xxxx xxxx xxxxx     57 xxxx 752 xxxxx xxxx xxxxx -----------|---------------||---------------||---------------||---------------|
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:                                                         Saturation Flow Module:
Stopped Del: 11.8 xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
                                                                                 Adjustment: 1.00 1.00 1.00 0.79 0.79 0.79 1.00 0.83 0.83 0.79 0.79 1.00
LOS by Move:  B     *     *     *     *     *     *     *     *     *     *     * Lanes:      0.00 0.00 0.00 0.11 2.52 0.37 0.00 0.42 0.58 0.22 0.78 0.00
Movement:    LT - LTR - RT     LT - LTR - RT     LT - LTR - RT     LT - LTR - RT Final Sat.:    0     0     0 171 3766 556     0 669 908 329 1164     0
Shared Cap.: xxxx xxxxx xxxxx xxxx xxxxx xxxxx     xxxx 260 xxxxx xxxxx xxxx xxxxx -----------|---------------||---------------||---------------||---------------|
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 44.5 xxxxx xxxxx xxxx xxxxx Capacity Analysis Module:
Shared LOS:   *     *     *     *     *     *     *     E     *     *     *     * Vol/Sat:    0.00 0.00 0.00 0.30 0.30 0.30 0.00 0.23 0.23 0.17 0.17 0.00
ApproachDel:  xxxxxx         xxxxxx         44.5         xxxxxx                 Crit Moves:                   ****             ****
ApproachLOS:     *             *             E             *                     Green/Cycle: 0.00 0.00 0.00 0.40 0.40 0.40 0.00 0.29 0.29 0.43 0.43 0.00
                                                                                 Volume/Cap: 0.00 0.00 0.00 0.75 0.75 0.75 0.00 0.78 0.78 0.41 0.41 0.00
                                                                                 Delay/Veh:   0.0 0.0     0.0 13.6 13.6 13.6     0.0 36.9 36.9     9.4 9.4 0.0
                                                                                 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
                                                                                 AdjDel/Veh:  0.0 0.0     0.0 13.6 13.6 13.6     0.0 36.9 36.9     9.4 9.4 0.0
                                                                                 DesignQueue:   0     0     0     1     30     4     0     5     6     1     5     0
                                                                                 ***********************************************************************


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-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #30 Center Street / NB Shattuck Avenue
*************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):        0.551
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    9.5
Optimal Cycle:      65          Level Of Service:                 A
*************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  40   40   40     0    0    0    17   17    0     0   17   17
Lanes:        0    1    1  1  0    0    0    0  0    0    1    0    0  0    0    0    1    0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    50  982   86     0    0    0    81   55    0     0  139   58
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 50  982   86     0    0    0    81   55    0     0  139   58
Added Vol:    0  117    0     0    0    0     0    0    0     0    0    0
Future:      30  110   30     0    0    0    30   40    0     0   40   60
Initial Fut: 80 1209  116     0    0    0   111   95    0     0  179  118
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  80 1209  116     0    0    0   111   95    0     0  179  118
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 80 1209  116     0    0    0   111   95    0     0  179  118
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  80 1209  116     0    0    0   111   95    0     0  179  118
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.80 0.80 0.80  1.00 1.00 1.00  0.74 0.74 1.00  1.00 0.85 0.85
Lanes:      0.17 2.58 0.25  0.00 0.00 0.00  0.54 0.46 0.00  0.00 0.60 0.40
Final Sat.: 259 3921  376     0    0    0   754  645    0     0  975  643
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.31 0.31 0.31  0.00 0.00 0.00  0.15 0.15 0.00  0.00 0.18 0.18
Crit Moves:      ****                                            ****
Green/Cycle: 0.53 0.53 0.53 0.00 0.00 0.00  0.29 0.29 0.00  0.00 0.29 0.29
Volume/Cap: 0.58 0.58 0.58  0.00 0.00 0.00  0.50 0.50 0.00  0.00 0.63 0.63
Delay/Veh:   3.8  3.8  3.8   0.0  0.0  0.0  20.2 20.2  0.0   0.0 29.1 29.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  3.8  3.8  3.8   0.0  0.0  0.0  20.2 20.2  0.0   0.0 29.1 29.1
DesignQueue:  2   25    2     0    0    0     3    3    0     0    5    4
*************************************************************************
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-------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #31 Center Street / Oxford Street
*************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):        0.550
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   10.5
Optimal Cycle:      46          Level Of Service:                 B
*************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||--------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:  19   19   19    19   19   19    19   19   19    19   19   19
Lanes:        1    0    1  1  0    1    0    1  1  0    0    0    1! 0    0    0    0    1! 0    0
-----------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 13 Nov 2000 << 4:00 - 6:00 PM
Base Vol:    87  998   24    19  980   67    33    6   84    37    9   16
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 87  998   24    19  980   67    33    6   84    37    9   16
Added Vol:    0  156    0    -1   85    3     0    0    0    -2   -3   -5
Future:      40  150   10     0  150   30    30    0   30     0    0    0
Initial Fut: 127 1304   34    18 1215  100    63    6  114    35    6   11
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  127 1304   34    18 1215  100    63    6  114    35    6   11
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 127 1304   34    18 1215  100    63    6  114    35    6   11
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  127 1304   34    18 1215  100    63    6  114    35    6   11
-----------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.19 0.94 0.95  0.18 0.94 0.94  0.81 0.81 0.81  0.76 0.76 0.76
Lanes:      1.00 1.95 0.05  1.00 1.85 0.15  0.34 0.03 0.63  0.67 0.12 0.21
Final Sat.: 359 3504   91   348 3299  272   527   50  954   977  168  307
-----------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:    0.35 0.37 0.37  0.05 0.37 0.37  0.12 0.12 0.12  0.04 0.04 0.04
Crit Moves:      ****                            ****
Green/Cycle: 0.64 0.64 0.64 0.64 0.64 0.64  0.25 0.25 0.25  0.25 0.25 0.25
Volume/Cap: 0.55 0.58 0.58  0.08 0.58 0.58  0.47 0.47 0.47  0.14 0.14 0.14
Delay/Veh:  16.8  8.8  8.8   5.8  8.8  8.8  27.8 27.8 27.8  22.5 22.5 22.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 16.8  8.8  8.8   5.8  8.8  8.8  27.8 27.8 27.8  22.5 22.5 22.5
DesignQueue:  2   22    1     0   20    2     2    0    4     1    0    0
*************************************************************************
```

```
-------------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          PM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #32 Stadium Rim Road / Gayley Road
********************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):          1.230
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):     82.3
Optimal Cycle:        0          Level Of Service:                    F
********************************************************************************
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:        Include           Include           Include           Include
Min. Green:   0     0    0     0     0    0     0     0    0     0     0    0
Lanes:        0     0    1 0   0     1 0  0 0   0     0 1! 0 0   0     0 1! 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0   359   19   135   459    0    20    7   15    47    0  232
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0   359   19   135   459    0    20    7   15    47    0  232
Added Vol:    0    53   22     5    26    0     0    0    0    24    0   25
Future:       0    90   10    20    50    0     0    0    0    10    0   30
Initial Fut:  0   502   51   160   535    0    20    7   15    81    0  287
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0   502   51   160   535    0    20    7   15    81    0  287
Reduct Vol:   0     0    0     0     0    0     0    0    0     0    0    0
Reduced Vol:  0   502   51   160   535    0    20    7   15    81    0  287
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0   502   51   160   535    0    20    7   15    81    0  287
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.91 0.09  0.23 0.77 0.00  0.47 0.17 0.36  0.22 0.00 0.78
Final Sat.:   0   517   53   130   435    0   196   69  147   119    0  421
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx 0.97 0.97  1.23 1.23 xxxx  0.10 0.10 0.10  0.68 xxxx 0.68
Crit Moves:        ****              ****         ****                    ****
Delay/Veh:   0.0 55.1 55.1 140.0 140   0.0  12.1 12.1 12.1  22.2  0.0 22.2
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 55.1 55.1 140.0 140   0.0  12.1 12.1 12.1  22.2  0.0 22.2
LOS by Move:  *    F    F    F     F    *    B    B    B     C    *    C
ApproachDel:      55.1             140.0            12.1             22.2
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       55.1             140.0            12.1             22.2
LOS by Appr:       F                 F                B                C
********************************************************************************
```

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-------------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          PM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
             2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #33 Allston Way / Oxford Street
********************************************************************************
Average Delay (sec/veh):      6.0         Worst Case Level Of Service:     E
********************************************************************************
Approach:    North Bound       South Bound       East Bound        West Bound
Movement:    L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Uncontrolled      Uncontrolled       Stop Sign         Stop Sign
Rights:        Include           Include           Include           Include
Lanes:        0  1  1  0  0   0  1  0  1  0   1  0  0  0  1   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    46 1002    0    26 1082   75    23    0  110     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 46 1002    0    26 1082   75    23    0  110     0    0    0
Added Vol:    0  156    0     0    83    0     0    0    0     0    0    0
Future:       0  190    0    10   160   10     0    0   30     0    0    0
Initial Fut: 46 1348    0    36 1325   85    23    0  140     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  46 1348    0    36 1325   85    23    0  140     0    0    0
Reduct Vol:   0    0    0     0     0    0     0    0    0     0    0    0
Final Vol.:  46 1348    0    36 1325   85    23    0  140     0    0    0
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx  4.1 xxxx xxxxx  6.8 xxxx   6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx  2.2 xxxx xxxxx  3.5 xxxx   3.3 xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1296 xxxx xxxxx 1348 xxxx xxxxx 2147 xxxx   549 xxxxx xxxx xxxxx
Potent Cap.: 511 xxxx xxxxx  517 xxxx xxxxx   40 xxxx   457 xxxx xxxx xxxxx
Move Cap.:   511 xxxx xxxxx  517 xxxx xxxxx   35 xxxx   457 xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 12.7 xxxx xxxxx 12.5 xxxx xxxxx 219.9 xxxx 16.3 xxxxx xxxx xxxxx
LOS by Move:  B    *    *     B    *    *     F    *    C     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel: 12.7 xxxx xxxxx 12.5 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shared LOS:   B    *    *     B    *    *     *    *    *     *    *    *
ApproachDel:  xxxxxx           xxxxxx            45.0           xxxxxx
ApproachLOS:     *                *                E                *
********************************************************************************
```

```
CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06          Page 42-1        CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06          Page 43-1
--------------------------------------------------------------------------     --------------------------------------------------------------------------
                       UC Berkeley LRDP EIR                                                           UC Berkeley LRDP EIR
                   2020 With Project Conditions                                                   2020 With Project Conditions
                         PM Peak Hour                                                                   PM Peak Hour
--------------------------------------------------------------------------     --------------------------------------------------------------------------
                 Level Of Service Computation Report                                           Level Of Service Computation Report
        2000 HCM Unsignalized Method (Future Volume Alternative)                      2000 HCM 4-Way Stop Method (Future Volume Alternative)
****************************************************************************     ****************************************************************************
Intersection #34 Kittridge Street / Oxford Street / Fulton Street               Intersection #35 Stadium Rim Road / Centennial Drive
****************************************************************************     ****************************************************************************
Average Delay (sec/veh):    18.5       Worst Case Level Of Service:     F       Cycle (sec):        100        Critical Vol./Cap. (X):      0.604
****************************************************************************     Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):     12.7
Approach:     North Bound     South Bound      East Bound      West Bound       Optimal Cycle:        0                Level Of Service:        B
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    ****************************************************************************
------------|---------------||---------------||---------------||---------------| Approach:     North Bound     South Bound      East Bound      West Bound
Control:      Uncontrolled     Uncontrolled     Stop Sign       Stop Sign       Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
Rights:          Include          Include          Include         Include      ------------|---------------||---------------||---------------||---------------|
Lanes:       0  1  0  1  0    0  1  0  1  0    0  0  1! 0  0    0  0  1! 0  0    Control:       Stop Sign       Stop Sign       Stop Sign       Stop Sign
------------|---------------||---------------||---------------||---------------| Rights:          Include          Include          Include         Include
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM                     Min. Green:    0   0   0     0   0   0     0   0   0     0   0   0
Base Vol:    45  995    0      0 1108   96   51    0   69    0    0    0         Lanes:       0  0  0  1  0    0  1  0  0  0    0  0  0  0  0    0  0  1! 0  0
Growth Adj: 1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00     ------------|---------------||---------------||---------------||---------------|
Initial Bse: 45  995    0      0 1108   96   51    0   69    0    0    0         Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Added Vol:    0   94    3      9   74    0    0    3    0   18   26   62         Base Vol:     0   99  140   102   57    0     0    0    0   204    0  146
Future:      20  180    0      0  150   30   10    0   20    0    0    0         Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Fut: 65 1269    3      9 1332  126   61    3   89   18   26   62         Initial Bse:  0   99  140   102   57    0     0    0    0   204    0  146
User Adj:   1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00     Added Vol:    0    0    0    27    0    0     0    0    0     0    0   49
PHF Adj:    1.00 1.00 1.00   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00     Future:       0   20   20    20   10    0     0    0    0    10    0   20
PHF Volume:  65 1269    3      9 1332  126   61    3   89   18   26   62         Initial Fut:  0  119  160   149   67    0     0    0    0   214    0  215
Reduct Vol:   0    0    0      0    0    0    0    0    0    0    0    0         User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  65 1269    3      9 1332  126   61    3   89   18   26   62         PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Critical Gap Module:                                                            PHF Volume:   0  119  160   149   67    0     0    0    0   214    0  215
Critical Gp: 4.1 xxxx xxxxx   4.1 xxxx xxxxx  7.5  6.5  6.9  7.5  6.5  6.9      Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
FollowUpTim: 2.2 xxxx xxxxx   2.2 xxxx xxxxx  3.5  4.0  3.3  3.5  4.0  3.3      Reduced Vol:  0  119  160   149   67    0     0    0    0   214    0  215
------------|---------------||---------------||---------------||---------------| PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Capacity Module:                                                                MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Cnflict Vol: 1357 xxxx xxxxx  1272 xxxx xxxxx 2136 2795  588 2026 2860  636     Final Vol.:   0  119  160   149   67    0     0    0    0   214    0  215
Potent Cap.: 487 xxxx xxxxx   553 xxxx xxxxx   27   18  434   33   16  425      ------------|---------------||---------------||---------------||---------------|
Move Cap.:   487 xxxx xxxxx   553 xxxx xxxxx    0   15  434   20   14  425      Saturation Flow Module:
------------|---------------||---------------||---------------||---------------| Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Level Of Service Module:                                                        Lanes:      0.00 0.43 0.57  0.69 0.31 0.00  0.00 0.00 0.00  0.50 0.00 0.50
Stopped Del: 13.5 xxxx xxxxx  11.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx Final Sat.:   0  293  394   426  192    0     0    0    0   354    0  356
LOS by Move:   B    *     *     B    *     *    *    *    *    *    *    *       ------------|---------------||---------------||---------------||---------------|
Movement:     LT - LTR - RT    LT - LTR - RT   LT - LTR - RT    LT - LTR - RT   Capacity Analysis Module:
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx xxxx    0 xxxxx xxxx   36 xxxxx   Vol/Sat:    xxxx 0.41 0.41  0.35 0.35 xxxx  xxxx xxxx xxxx  0.60 xxxx 0.60
Shrd StpDel: 13.5 xxxx xxxxx  11.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 1122 xxxxx Crit Moves:       ****          ****                             ****
Shared LOS:    B    *     *     B    *     *    *    *    *    *    F    *       Delay/Veh:   0.0 11.0 11.0  11.2 11.2  0.0   0.0  0.0  0.0  14.5  0.0 14.5
ApproachDel:    xxxxxx           xxxxxx          xxxxxx          1122.1         Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
ApproachLOS:      *                 *               F               F           AdjDel/Veh:  0.0 11.0 11.0  11.2 11.2  0.0   0.0  0.0  0.0  14.5  0.0 14.5
                                                                                LOS by Move:   *    B    B     B    B    *    *    *    *     B    *    B
                                                                                ApproachDel:     11.0            11.2           xxxxxx           14.5
                                                                                Delay Adj:       1.00            1.00           xxxxx            1.00
                                                                                ApprAdjDel:      11.0            11.2           xxxxxx           14.5
                                                                                LOS by Appr:       B               B               *               B
                                                                                ****************************************************************************

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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #36 Bancroft Way / Shattuck Avenue
*******************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):        0.836
Loss Time (sec):     8 (Y+R =  5 sec) Average Delay (sec/veh):   22.1
Optimal Cycle:      68          Level Of Service:                 C
*******************************************************************************
Approach:      North Bound      South Bound       East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  18   18    0    0   18   18    0    0    0   16   16   16
Lanes:        1 0  2  0 0    0 0  1  1 0    0 0  1! 0 0    1 0  0  1 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     30 1186    0    0  949   23    1    0   38  258   97  111
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  30 1186    0    0  949   23    1    0   38  258   97  111
Added Vol:     0   44    0    0  129    0    0    0    0  107    0   76
Future:       10  150    0    0  290   10    0    0    0   30   20   20
Initial Fut:  40 1380    0    0 1368   33    1    0   38  395  117  207
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   40 1380    0    0 1368   33    1    0   38  395  117  207
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  40 1380    0    0 1368   33    1    0   38  395  117  207
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   40 1380    0    0 1368   33    1    0   38  395  117  207
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.13 0.86 1.00 1.00 0.85 0.85 0.78 1.00 0.78 0.66 0.81 0.81
Lanes:      1.00 2.00 0.00 0.00 1.95 0.05 0.03 0.00 0.97 1.00 0.36 0.64
Final Sat.:  250 3249    0    0 3160   76   38    0 1438 1259  558  988
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.42 0.00 0.00 0.43 0.43 0.03 0.00 0.03 0.31 0.21 0.21
Crit Moves:                     ****                     ****
Green/Cycle: 0.52 0.52 0.00 0.00 0.52 0.52 0.38 0.00 0.38 0.38 0.38 0.38
Volume/Cap: 0.31 0.82 0.00 0.00 0.84 0.84 0.07 0.00 0.07 0.84 0.56 0.56
Delay/Veh:  16.5 19.8  0.0  0.0 20.5 20.5 15.3  0.0 15.3 37.3 22.4 22.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.5 19.8  0.0  0.0 20.5 20.5 15.3  0.0 15.3 37.3 22.4 22.4
DesignQueue:   1   31    0    0   30    1    0    0    1   11    3    6
*******************************************************************************
```

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-------------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #37 Bancroft Way / Fulton Street
*******************************************************************************
Cycle (sec):        75          Critical Vol./Cap. (X):        0.507
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):   10.3
Optimal Cycle:      49          Level Of Service:                 B
*******************************************************************************
Approach:      North Bound      South Bound       East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Ignore
Min. Green:  17   17    0    0   17   17    0    0    0   24   24   24
Lanes:        0 1  1  0 0    0 0  2  1 0    0 0  0  0 0    0 1  1  0 1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     18  164    0    0 1066  165    0    0    0   12  287  898
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  18  164    0    0 1066  165    0    0    0   12  287  898
Added Vol:     2    0    0    0   85    7    0    0    0   20  143   97
Future:       10   10    0    0  130   20    0    0    0   10   30  170
Initial Fut:  30  174    0    0 1281  192    0    0    0   42  460 1165
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume:   30  174    0    0 1281  192    0    0    0   42  460    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  30  174    0    0 1281  192    0    0    0   42  460    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Vol.:   30  174    0    0 1281  192    0    0    0   42  460    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.73 0.73 1.00 1.00 0.89 0.89 1.00 1.00 1.00 0.81 0.81 1.00
Lanes:      0.29 1.71 0.00 0.00 2.61 0.39 0.00 0.00 0.00 0.17 1.83 1.00
Final Sat.:  408 2365    0    0 4425  663    0    0    0  257 2812 1900
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.07 0.07 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.16 0.16 0.00
Crit Moves:                     ****                     ****
Green/Cycle: 0.57 0.57 0.00 0.00 0.57 0.57 0.00 0.00 0.00 0.32 0.32 0.00
Volume/Cap: 0.13 0.13 0.00 0.00 0.51 0.51 0.00 0.00 0.00 0.51 0.51 0.00
Delay/Veh:   4.9  4.9  0.0  0.0  6.9  6.9  0.0  0.0  0.0 22.4 22.4  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  4.9  4.9  0.0  0.0  6.9  6.9  0.0  0.0  0.0 22.4 22.4  0.0
DesignQueue:   1    3    0    0   25    4    0    0    0    1   13    0
*******************************************************************************
```

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                              UC Berkeley LRDP EIR
                          2020 With Project Conditions
                                 PM Peak Hour
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
*******************************************************************************
Intersection #38 Bancroft Way / Ellsworth Street
*******************************************************************************
Average Delay (sec/veh):      6.3         Worst Case Level Of Service:       E
*******************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include           Include          Include
Lanes:      1  1  0  0  0    0  0  0  0  1    0  0  0  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    348   11    0     0    0  100     0    0    0     0  877    6
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 348   11    0     0    0  100     0    0    0     0  877    6
Added Vol:    12    0    0     0    0    0     0    0    0     0  157    0
Future:       50    0    0     0    0    0     0    0    0     0  230    0
Initial Fut: 410   11    0     0    0  100     0    0    0     0 1264    6
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  410   11    0     0    0  100     0    0    0     0 1264    6
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:  410   11    0     0    0  100     0    0    0     0 1264    6
Critical Gap Module:
Critical Gp: 7.1  6.5 xxxxx xxxxx xxxx   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim: 3.5  4.0 xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 632 1270 xxxxx  xxxx xxxx   635 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Potent Cap.: 396  170 xxxxx  xxxx xxxx   482 xxxx xxxx xxxxx xxxxx xxxx xxxxx
Move Cap.:   314  170 xxxxx  xxxx xxxx   482 xxxx xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 35.7 xxxx xxxxx xxxxx xxxx  14.4 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  E    *    *    *    *    B    *    *    *    *    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: 301 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel: 42.4 xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS:   E    *    *    *    *    *    *    *    *    *    *    *
ApproachDel:     39.2            14.4          xxxxxx          xxxxxx
ApproachLOS:      E               B              *               *
```

```
                              UC Berkeley LRDP EIR
                          2020 With Project Conditions
                                 PM Peak Hour
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
              2000 HCM Unsignalized Method (Future Volume Alternative)
*******************************************************************************
Intersection #39 Bancroft Way / Dana Street
*******************************************************************************
Average Delay (sec/veh):      0.0         Worst Case Level Of Service:       A
*******************************************************************************
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:          Include          Include           Include          Include
Lanes:      0  0  0  0  0    0  0  0  0  0    0  0  0  0  0    0  1  2  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0     0    0    0     0    0    0   282  873    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0    0     0    0    0     0    0    0   282  873    0
Added Vol:     0    0    0     0    0    0     0    0    0    32  157    0
Future:        0    0    0     0    0    0     0    0    0    50  230    0
Initial Fut:   0    0    0     0    0    0     0    0    0   364 1260    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0    0     0    0    0     0    0    0   364 1260    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    0    0    0     0    0    0     0    0    0   364 1260    0
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
LOS by Move:  *    *    *    *    *    *    *    *    *    A    *    *
Movement:    LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Shared LOS:   *    *    *    *    *    *    *    *    *    A    *    *
ApproachDel:   xxxxxx          xxxxxx          xxxxxx          xxxxxx
ApproachLOS:      *               *               *               *
```

```
                         UC Berkeley LRDP EIR
                    2020 With Project Conditions
                            PM Peak Hour
----------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
****************************************************************************
Intersection #40 Bancroft Way / Telegraph Avenue
****************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):        0.414
Loss Time (sec):     8 (Y+R = 22 sec) Average Delay (sec/veh):   19.3
Optimal Cycle:      58          Level Of Service:                 B
****************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected       Protected       Protected       Protected
Rights:         Include         Include         Include         Include
Min. Green:  29   0    0     0    0    0     0    0    0     0   21    0
Lanes:       2 0  0 0  0     0 0  0 0  0     0 0  0 0  0     0 0  3 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    495   0    0     0    0    0     0    0    0     0  675    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 495   0    0     0    0    0     0    0    0     0  675    0
Added Vol:     3   0    0     0    0    0     0    0    0     0  156    0
Future:      130   0    0     0    0    0     0    0    0     0  140    0
Initial Fut: 628   0    0     0    0    0     0    0    0     0  971    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  628   0    0     0    0    0     0    0    0     0  971    0
Reduct Vol:    0   0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 628   0    0     0    0    0     0    0    0     0  971    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  628   0    0     0    0    0     0    0    0     0  971    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.92 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
Lanes:      2.00 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 3.00 0.00
Final Sat.: 3502   0    0     0    0    0     0    0    0     0 5187    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.18 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 0.19 0.00
Crit Moves: ****                                                ****
Green/Cycle: 0.42 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 0.30 0.00
Volume/Cap: 0.43 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.00 0.62 0.00
Delay/Veh:  13.6  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0 23.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 13.6  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0 23.0  0.0
DesignQueue:  15   0    0     0    0    0     0    0    0     0   28    0
****************************************************************************
```

```
                         UC Berkeley LRDP EIR
                    2020 With Project Conditions
                            PM Peak Hour
----------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
****************************************************************************
Intersection #41 Bancroft Way / Bowditch Street
****************************************************************************
Cycle (sec):       100          Critical Vol./Cap. (X):        0.669
Loss Time (sec):     0 (Y+R =  4 sec) Average Delay (sec/veh):   16.2
Optimal Cycle:       0          Level Of Service:                 C
****************************************************************************
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign       Stop Sign       Stop Sign       Stop Sign
Rights:         Include         Include         Include         Include
Min. Green:    0   0    0     0    0    0     0    0    0     0    0    0
Lanes:       1 0  0 0  0     0 0  0 0  0     0 0  0 0  0     0 1  1 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    191   0    0     0    0    0     0    0    0     0   99  494    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 191   0    0     0    0    0     0    0    0     0   99  494    0
Added Vol:     0   0    0     0    0    0     0    0    0     0   27  156    0
Future:       30   0    0     0    0    0     0    0    0     0   20  110    0
Initial Fut: 221   0    0     0    0    0     0    0    0     0  146  760    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  221   0    0     0    0    0     0    0    0     0  146  760    0
Reduct Vol:    0   0    0     0    0    0     0    0    0     0    0    0    0
Reduced Vol: 221   0    0     0    0    0     0    0    0     0  146  760    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:  221   0    0     0    0    0     0    0    0     0  146  760    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      1.00 0.00 0.00  0.00 0.00 0.00  0.00 0.00 0.00  0.32 1.68 0.00
Final Sat.:  617   0    0     0    0    0     0    0    0     0  218 1157    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.36 xxxx xxxx  xxxx xxxx xxxx  xxxx xxxx xxxx  0.67 0.66 xxxx
Crit Moves: ****                                                ****
Delay/Veh:  11.7  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0  17.9 17.1  0.0
Delay Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 11.7  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0  17.9 17.1  0.0
LOS by Move:  B    *    *     *    *    *     *    *    *     C    C    *
ApproachDel:      11.7          xxxxxx          xxxxxx          17.3
Delay Adj:        1.00          xxxxx           xxxxx           1.00
ApprAdjDel:       11.7          xxxxxx          xxxxxx          17.3
LOS by Appr:       B              *               *               C
****************************************************************************
```

```
-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #42 Bancroft Way / College Avenue
********************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):       0.700
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):    15.3
Optimal Cycle:        0        Level Of Service:               C
********************************************************************************

********************************************************************************
Approach:       North Bound    South Bound    East Bound     West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign      Stop Sign      Stop Sign      Stop Sign
Rights:          Include        Include        Include        Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        1    0    0    0    0    0    0    0    0    0    0    1    1    0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     371    0    0    0    0    0    0    0    0   83  226    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 371    0    0    0    0    0    0    0    0   83  226    0
Added Vol:    20    0    0    0    0    0    0    0    0   18   41    0
Future:      100    0    0    0    0    0    0    0    0    0   20    0
Initial Fut: 491    0    0    0    0    0    0    0    0  101  287    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  491    0    0    0    0    0    0    0    0  101  287    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 491    0    0    0    0    0    0    0    0  101  287    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  491    0    0    0    0    0    0    0    0  101  287    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.52 1.48 0.00
Final Sat.:  701    0    0    0    0    0    0    0    0  302  883    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.70 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.33 0.32 xxxx
Crit Moves:  ****                                         ****
Delay/Veh:   18.5  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 11.5 11.2  0.0
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  18.5  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 11.5 11.2  0.0

LOS by Move:  C    *    *    *    *    *    *    *    *    B    B    *
ApproachDel:      18.5          xxxxxx         xxxxxx         11.3
Delay Adj:        1.00          xxxxx          xxxxx          1.00
ApprAdjDel:       18.5          xxxxxx         xxxxxx         11.3
LOS by Appr:       C             *              *              B
********************************************************************************
```
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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #43 Bancroft Way / Piedmont Avenue
********************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):       0.979
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):    36.7
Optimal Cycle:        0        Level Of Service:               E
********************************************************************************
Approach:       North Bound    South Bound    East Bound     West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign      Stop Sign      Stop Sign      Stop Sign
Rights:          Include        Include        Include        Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0    1    0    0    0    0    0    1    0    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     152  439    0    0  357  159    0    0    0    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 152  439    0    0  357  159    0    0    0    0    0    0
Added Vol:    13   65    0    0   36   46    0    0    0    0    0    0
Future:       10   90    0    0   40   10    0    0    0    0    0    0
Initial Fut: 175  594    0    0  433  215    0    0    0    0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  175  594    0    0  433  215    0    0    0    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 175  594    0    0  433  215    0    0    0    0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  175  594    0    0  433  215    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.23 0.77 0.00 0.00 0.67 0.33 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.:  179  607    0    0  536  266    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.98 0.98 xxxx xxxx 0.81 0.81 xxxx xxxx xxxx xxxx xxxx xxxx
Crit Moves:  ****           ****
Delay/Veh:   48.0 48.0  0.0  0.0 23.2 23.2  0.0  0.0  0.0  0.0  0.0  0.0
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  48.0 48.0  0.0  0.0 23.2 23.2  0.0  0.0  0.0  0.0  0.0  0.0
LOS by Move:  E    E    *    *    C    C    *    *    *    *    *    *
ApproachDel:      48.0          23.2          xxxxxx         xxxxxx
Delay Adj:        1.00          1.00          xxxxx          xxxxx
ApprAdjDel:       48.0          23.2          xxxxxx         xxxxxx
LOS by Appr:       E             C              *              *
********************************************************************************
```
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                    2020 With Project Conditions
                          PM Peak Hour

                   Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #44 Durant Avenue / Shattuck Avenue
****
Cycle (sec):   75   Critical Vol./Cap. (X):   0.801
Loss Time (sec):   12 (Y+R = 4 sec) Average Delay (sec/veh):   21.3
Optimal Cycle: 70   Level Of Service: C
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Prot+Permit   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 19   19   19   19   19   19   0   0   0   0   0   0
Lanes: 1 0 1 1 0   1 0 1 1 0   0 1 0 1 0   0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 69 1216 120   88 1099   51   9   72   55   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 69 1216 120   88 1099   51   9   72   55   0   0   0
Added Vol: 0   44   13   15 221   0   0   0   0   0   0   0
Future: 10 170   60   60 260   10   0   40   10   0   0   0
Initial Fut: 79 1430 193   163 1580   61   9 112   65   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 79 1430 193   163 1580   61   9 112   65   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 79 1430 193   163 1580   61   9 112   65   0   0   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 79 1430 193   163 1580   61   9 112   65   0   0   0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.14 0.84 0.84 0.86 0.85 0.85 0.77 0.77 0.77 1.00 1.00 1.00
Lanes: 1.00 1.76 0.24 1.07 1.93 0.07 0.10 1.20 0.70 0.00 0.00 0.00
Final Sat.: 257 2811 379 1625 3109 120   141 1758 1020   0   0   0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.31 0.51 0.51 0.10 0.51 0.51 0.06 0.06 0.06 0.00 0.00 0.00
Crit Moves: ****   ****   ****
Green/Cycle: 0.49 0.49 0.49 0.64 0.64 0.64 0.20 0.20 0.20 0.00 0.00 0.00
Volume/Cap: 0.63 1.04 1.04 0.16 0.79 0.79 0.32 0.32 0.32 0.00 0.00 0.00
Delay/Veh: 26.5 40.2 40.2   5.7 3.2 3.2 27.1 27.1 27.1   0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 26.5 40.2 40.2   5.7 3.2 3.2 27.1 27.1 27.1   0.0 0.0 0.0
DesignQueue: 2   34   5   3   27   1   0   4   2   0   0   0
****

                        UC Berkeley LRDP EIR
                    2020 With Project Conditions
                          PM Peak Hour

                   Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
****
Intersection #45 Durant Avenue / Fulton Street
****
Cycle (sec):   75   Critical Vol./Cap. (X):   0.454
Loss Time (sec):   8 (Y+R = 4 sec) Average Delay (sec/veh):   9.9
Optimal Cycle: 51   Level Of Service: A
****
Approach: North Bound   South Bound   East Bound   West Bound
Movement: L - T - R   L - T - R   L - T - R   L - T - R
-----------|---------------||---------------||---------------||---------------|
Control: Permitted   Permitted   Permitted   Permitted
Rights: Include   Include   Include   Include
Min. Green: 0   0   0   21   21   0   22   22   22   0   0   0
Lanes: 0 0 0 0 0   1 1 1 0 0   1 0 1 1 0   0 0 0 0 0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol: 0   0   0   527 760   0   137 219   33   0   0   0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0   0   0   527 760   0   137 219   33   0   0   0
Added Vol: 0   0   0   86   20   0   2   27   0   0   0   0
Future: 0   0   0   70   90   0   20 110   30   0   0   0
Initial Fut: 0   0   0   683 870   0   159 356   63   0   0   0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0   0   0   683 870   0   159 356   63   0   0   0
Reduct Vol: 0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol: 0   0   0   683 870   0   159 356   63   0   0   0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0   0   0   683 870   0   159 356   63   0   0   0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 0.95 1.00 0.98 0.93 0.93 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.32 1.68 0.00 1.70 0.00 0.30 0.00 0.00 0.00
Final Sat.:   0   0   0 2381 3034   0 1858 3000 531   0   0   0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.29 0.29 0.00 0.09 0.12 0.12 0.00 0.00 0.00
Crit Moves: ****   ****
Green/Cycle: 0.00 0.00 0.00 0.60 0.60 0.00 0.29 0.29 0.29 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.48 0.48 0.00 0.29 0.40 0.40 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0   5.3 5.3 0.0 21.8 22.4 22.4   0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0   5.3 5.3 0.0 21.8 22.4 22.4   0.0 0.0 0.0
DesignQueue: 0   0   0   12   16   0   5   11   2   0   0   0
****

```
-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #46 Durant Avenue / Telegraph Avenue
*******************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):         0.459
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    13.3
Optimal Cycle:      43          Level Of Service:                  B
*******************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:   0   18   18    0    0    0   17   17    0    0    0    0
Lanes:        0  0  1  1  0   0  0  0  0  0   0  1  2  0  0   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0  362  119    0    0    0  202  690    0    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  362  119    0    0    0  202  690    0    0    0    0
Added Vol:    0    1    5    0    0    0    2  100    0    0    0    0
Future:       0  110   30    0    0    0   20  160    0    0    0    0
Initial Fut:  0  473  154    0    0    0  224  950    0    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  473  154    0    0    0  224  950    0    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  473  154    0    0    0  224  950    0    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  473  154    0    0    0  224  950    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 1.00
Lanes:      0.00 1.51 0.49 0.00 0.00 0.00 0.57 2.43 0.00 0.00 0.00 0.00
Final Sat.:   0 2623  854    0    0    0  990 4197    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.18 0.18 0.00 0.00 0.00 0.23 0.23 0.00 0.00 0.00 0.00
Crit Moves:      ****                          ****
Green/Cycle: 0.00 0.39 0.39 0.00 0.00 0.00 0.49 0.49 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.46 0.46 0.00 0.00 0.00 0.46 0.46 0.00 0.00 0.00 0.00
Delay/Veh:   0.0 15.3 15.3  0.0  0.0  0.0 12.2 12.2  0.0  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 15.3 15.3  0.0  0.0  0.0 12.2 12.2  0.0  0.0  0.0  0.0
DesignQueue:  0   12    4    0    0    0    5   20    0    0    0    0
*******************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-------------------------------------------------------------------------------
                   Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #47 Durant Avenue / College Avenue
*******************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):         0.427
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    13.6
Optimal Cycle:      42          Level Of Service:                  B
*******************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:   0   18   18    0    0    0   16   16   16    0    0    0
Lanes:        0  0  0  1  0   0  1  0  0  0   1  0  1  1  0   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0  189   62   16   56    0  127  268  202    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0  189   62   16   56    0  127  268  202    0    0    0
Added Vol:    0    4    4    0   18    0   16   96   18    0    0    0
Future:       0   40   20    0    0    0   60   70   40    0    0    0
Initial Fut:  0  233   86   16   74    0  203  434  260    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0  233   86   16   74    0  203  434  260    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0  233   86   16   74    0  203  434  260    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0  233   86   16   74    0  203  434  260    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.96 0.96 0.93 0.93 1.00 0.94 0.90 0.90 1.00 1.00 1.00
Lanes:      0.00 0.73 0.27 0.18 0.82 0.00 1.25 0.75 0.00 0.00 0.00
Final Sat.:   0 1338  494  315 1456    0 1794 2131 1277    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.17 0.17 0.05 0.05 0.00 0.11 0.20 0.20 0.00 0.00 0.00
Crit Moves:      ****                          ****
Green/Cycle: 0.00 0.41 0.41 0.41 0.41 0.00 0.48 0.48 0.48 0.00 0.00 0.00
Volume/Cap: 0.00 0.43 0.43 0.12 0.12 0.00 0.24 0.43 0.43 0.00 0.00 0.00
Delay/Veh:   0.0 16.6 16.6 13.3 13.3  0.0 11.4 12.8 12.8  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 16.6 16.6 13.3 13.3  0.0 11.4 12.8 12.8  0.0  0.0  0.0
DesignQueue:  0    6    2    0    2    0    4    9    6    0    0    0
*******************************************************************************
```

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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06          Page 56-1
--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #48 Durant Avenue / Piedmont Avenue
********************************************************************************
Cycle (sec):         100        Critical Vol./Cap. (X):        0.919
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):      34.1
Optimal Cycle:         0        Level Of Service:                 D
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0      0    0    0      0    0    0      0    0    0
Lanes:        0 0  1  0 0      0 0  1  0 0      1 0  0  0 1      0 0  0  0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       0  398    0      0  427    0    179    0  197      0    0    0
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:    0  398    0      0  427    0    179    0  197      0    0    0
Added Vol:      0   56    0      0   36    0     21    0   79      0    0    0
Future:         0   70    0      0   50    0     40    0   40      0    0    0
Initial Fut:    0  524    0      0  513    0    240    0  316      0    0    0
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     0  524    0      0  513    0    240    0  316      0    0    0
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:    0  524    0      0  513    0    240    0  316      0    0    0
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:     0  524    0      0  513    0    240    0  316      0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:       0.00 1.00 0.00   0.00 1.00 0.00   1.00 0.00 1.00   0.00 0.00 0.00
Final Sat.:     0  570    0      0  568    0    462    0  544      0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx 0.92 xxxx   xxxx 0.90 xxxx   0.52 xxxx 0.58   xxxx xxxx xxxx
Crit Moves:       ****              ****              ****
Delay/Veh:    0.0 44.4  0.0    0.0 41.7  0.0   18.0  0.0 17.2    0.0  0.0  0.0
Delay Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:   0.0 44.4  0.0    0.0 41.7  0.0   18.0  0.0 17.2    0.0  0.0  0.0
LOS by Move:   *    E    *      *    E    *      *    C    *      *    *    *
ApproachDel:      44.4              41.7              17.5           xxxxxx
Delay Adj:        1.00              1.00              1.00           xxxxx
ApprAdjDel:       44.4              41.7              17.5           xxxxxx
LOS by Appr:       E                 E                 C                *
********************************************************************************


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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06          Page 57-1
--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #49 Channing Way / Shattuck Avenue
********************************************************************************
Cycle (sec):          75        Critical Vol./Cap. (X):        0.799
Loss Time (sec):       8 (Y+R =  4 sec) Average Delay (sec/veh):       9.2
Optimal Cycle:        60        Level Of Service:                 A
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16   16     16   16   16     22   22   22     22   22   22
Lanes:        1 0  1  1 0      1 0  1  1 0      0 0  1! 0 0      0 0  1! 0 0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      83 1279   94     19 1089   49     18   76   81    144   97  106
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   83 1279   94     19 1089   49     18   76   81    144   97  106
Added Vol:      0   31    6      0  221    0      0    0    0     24    0   26
Future:        10  180   20     50  110   90     30   80   20     30   20   30
Initial Fut:   93 1490  120     69 1420  139     48  156  101    198  117  162
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    93 1490  120     69 1420  139     48  156  101    198  117  162
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   93 1490  120     69 1420  139     48  156  101    198  117  162
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    93 1490  120     69 1420  139     48  156  101    198  117  162
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:  1.00 0.94 0.94   0.09 0.94 0.94   0.96 0.96 0.96   0.95 0.95 0.95
Lanes:       1.00 1.85 0.15   1.00 1.82 0.18   0.16 0.51 0.33   0.41 0.25 0.34
Final Sat.:  1900 3304  266    171 3245  318    286  928  601    752  445  616
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.45 0.45   0.40 0.44 0.44   0.17 0.17 0.17   0.26 0.26 0.26
Crit Moves:       ****                                               ****
Green/Cycle: 0.56 0.56 0.56   0.59 0.59 0.59   0.33 0.33 0.33   0.33 0.33 0.33
Volume/Cap:  0.09 0.80 0.80   0.68 0.74 0.74   0.51 0.51 0.51   0.80 0.80 0.80
Delay/Veh:    1.2  5.2  5.2   31.3  2.6  2.6   23.4 23.4 23.4   33.6 33.6 33.6
User DelAdj: 1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:   1.2  5.2  5.2   31.3  2.6  2.6   23.4 23.4 23.4   33.6 33.6 33.6
DesignQueue:    2   30    2      1   27    3      1    5    3      6    3    5
********************************************************************************


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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #50 Channing Way / Fulton Street
********************************************************************************
Cycle (sec):        100           Critical Vol./Cap. (X):          0.842
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      27.6
Optimal Cycle:        0           Level Of Service:                  D
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
          ------------|---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0    0    0    0    0    0    0    0    0    0
Lanes:         0  0  0  0  0    0  1  0  1  0    0  0  0  1  0    0  1  0  0  0
          ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       0    0    0   48  686   61    0  133   38   15  257    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    0    0    0   48  686   61    0  133   38   15  257    0
Added Vol:      0    0    0    4   16    0    0    6    0    0   50    0
Future:         0    0    0   10  100    0    0  110   30   10   70    0
Initial Fut:    0    0    0   62  802   61    0  249   68   25  377    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     0    0    0   62  802   61    0  249   68   25  377    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    0    0    0   62  802   61    0  249   68   25  377    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:     0    0    0   62  802   61    0  249   68   25  377    0
          ------------|---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.00 0.00 0.00 0.13 1.74 0.13 0.00 0.79 0.21 0.06 0.94 0.00
Final Sat.:     0    0    0   74  964   74    0  439  120   35  528    0
          ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx xxxx 0.84 0.83 0.82 xxxx 0.57 0.57 0.71 0.71 xxxx
Crit Moves:               ****           ****           ****
Delay/Veh:    0.0  0.0  0.0 34.6 33.2 31.8  0.0 17.0 17.0 23.0 23.0  0.0
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   0.0  0.0  0.0 34.6 33.2 31.8  0.0 17.0 17.0 23.0 23.0  0.0
LOS by Move:   *    *    *    D    D    D    *    C    C    C    C    *
ApproachDel:   xxxxxx         33.2           17.0           23.0
Delay Adj:     xxxxx          1.00           1.00           1.00
ApprAdjDel:    xxxxxx         33.2           17.0           23.0
LOS by Appr:     *              D              C              C
********************************************************************************
```

```
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #51 Channing Way / Telegraph Avenue
********************************************************************************
Cycle (sec):         70           Critical Vol./Cap. (X):       OVERFLOW
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      16.4
Optimal Cycle:      180           Level Of Service:                  B
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
          ------------|---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   18   18   18    0    0    0   17   17    0    0   17   17
Lanes:         0  1  0  1  0    0  0  0  0  0    0  1  0  0  0    0  0  0  1  0
          ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 1 Sep 1997 << 4:00 - 6:00 PM
Base Vol:      86  410   41    0    0    0   23  144    0    0  227   46
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   86  410   41    0    0    0   23  144    0    0  227   46
Added Vol:      0    4    9    0    0    0    0   14    0    0   50    2
Future:        10   40   30    0    0    0    0   30   80   40   30    0
Initial Fut:   96  454   80    0    0    0   23  188   80   40  307   48
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    96  454   80    0    0    0   23  188   80   40  307   48
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   96  454   80    0    0    0   23  188   80   40  307   48
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    96  454   80    0    0    0   23  188   80   40  307   48
          ------------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.91 0.91 0.91 1.00 1.00 1.00 0.95 0.95 0.96 0.74 0.98 0.98
Lanes:       0.30 1.45 0.25 0.00 0.00 0.00 0.11 0.89 0.00 0.00 0.86 0.14
Final Sat.:   529 2504  441    0    0    0  196 1603    0    0 1617  253
          ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.18 0.18 0.18 0.00 0.00 0.00 0.12 0.12 xxxx xxxx 0.19 0.19
Crit Moves:       ****                          ****
Green/Cycle: 0.26 0.26 0.26 0.00 0.00 0.00 0.63 0.63 0.63 0.63 0.63 0.63
Volume/Cap:  0.71 0.71 0.71 0.00 0.00 0.00 0.19 0.19 xxxx xxxx 0.30 0.30
Delay/Veh:   28.7 28.7 28.7  0.0  0.0  0.0  5.8  5.8  0.0  0.0  6.6  6.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  28.7 28.7 28.7  0.0  0.0  0.0  5.8  5.8  0.0  0.0  6.6  6.6
DesignQueue:    3   14    2    0    0    0    0    3    0    0    5    1
********************************************************************************
```

```
-------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                          PM Peak Hour
-------------------------------------------------------------------------
                 Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #52 Channing Way / College Avenue
*************************************************************************
Cycle (sec):         65        Critical Vol./Cap. (X):        0.614
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    15.9
Optimal Cycle:       43        Level Of Service:                  B
*************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:        Include          Include          Include          Include
Min. Green:  18   18   18    18   18   18    17   17   17    17   17   17
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     31  189   41    7  206   24    5   95   58  124  141   47
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  31  189   41    7  206   24    5   95   58  124  141   47
Added Vol:     3    8   -1    0   36    0    0   78   20   -3   12    0
Future:       30   60   30    0   40   10   30   40   40   40   20   30
Initial Fut:  64  257   70    7  282   34   35  213  118  161  173   77
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   64  257   70    7  282   34   35  213  118  161  173   77
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  64  257   70    7  282   34   35  213  118  161  173   77
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   64  257   70    7  282   34   35  213  118  161  173   77
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.88 0.88 0.88 0.98 0.98 0.98 0.90 0.90 0.90 0.71 0.71 0.71
Lanes:       0.16 0.66 0.18 0.02 0.87 0.11 0.10 0.58 0.32 0.39 0.42 0.19
Final Sat.:   272 1093  298   40 1621  195  164  997  552  530  570  254
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.24 0.24 0.24 0.17 0.17 0.17 0.21 0.21 0.21 0.30 0.30 0.30
Crit Moves:       ****                                           ****
Green/Cycle: 0.38 0.38 0.38 0.38 0.38 0.38 0.49 0.49 0.49 0.49 0.49 0.49
Volume/Cap:  0.61 0.61 0.61 0.45 0.45 0.45 0.43 0.43 0.43 0.61 0.61 0.61
Delay/Veh:   19.2 19.2 19.2 15.8 15.8 15.8 12.2 12.2 12.2 16.1 16.1 16.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  19.2 19.2 19.2 15.8 15.8 15.8 12.2 12.2 12.2 16.1 16.1 16.1
DesignQueue:   2    6    2    0    7    1    1    4    2    3    3    1
*************************************************************************
```

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-------------------------------------------------------------------------
                        UC Berkeley LRDP EIR
                     2020 With Project Conditions
                          PM Peak Hour
-------------------------------------------------------------------------
                 Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*************************************************************************
Intersection #53 Haste Street / Shattuck Avenue
*************************************************************************
Cycle (sec):         75        Critical Vol./Cap. (X):        1.125
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    19.3
Optimal Cycle:      180        Level Of Service:                  B
*************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|--------------||--------------||--------------||--------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:        Include          Include          Include          Include
Min. Green:  22   22    0     0   22   22     0    0    0    27   27   27
Lanes:        1  0  2  0  0   0  0  1  1  0   0  0  0  0  0   0  1  0  1  0
-----------|--------------||--------------||--------------||--------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    104 1277    0    0 1208   88    0    0    0  268  336  152
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 104 1277    0    0 1208   88    0    0    0  268  336  152
Added Vol:     0   37    0    0  200   45    0    0    0   32   73    0
Future:       30  160    0    0  130   20    0    0    0   40   80   40
Initial Fut: 134 1474    0    0 1538  153    0    0    0  340  489  192
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  134 1474    0    0 1538  153    0    0    0  340  489  192
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 134 1474    0    0 1538  153    0    0    0  340  489  192
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  134 1474    0    0 1538  153    0    0    0  340  489  192
-----------|--------------||--------------||--------------||--------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.10 0.95 1.00 1.00 0.94 0.94 1.00 1.00 1.00 0.90 0.90 0.90
Lanes:       1.00 2.00 0.00 0.00 1.82 0.18 0.00 0.00 0.00 0.66 0.96 0.38
Final Sat.:   190 3610    0    0 3241  322    0    0    0 1136 1634  641
-----------|--------------||--------------||--------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.71 0.41 0.00 0.00 0.47 0.47 0.00 0.00 0.00 0.30 0.30 0.30
Crit Moves:  ****                                                ****
Green/Cycle: 0.53 0.53 0.00 0.00 0.53 0.53 0.00 0.00 0.00 0.36 0.36 0.36
Volume/Cap:  1.32 0.77 0.00 0.00 0.89 0.89 0.00 0.00 0.00 0.83 0.83 0.83
Delay/Veh:  202.5  6.3  0.0  0.0 10.4 10.4  0.0  0.0  0.0 28.6 28.6 28.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 202.5  6.3  0.0  0.0 10.4 10.4  0.0  0.0  0.0 28.6 28.6 28.6
DesignQueue:   3   32    0    0   34    3    0    0    0   10   14    6
*************************************************************************
```

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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06          Page 62-1
------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
************************************************************************
Intersection #54 Haste Street / Fulton Street
************************************************************************
Cycle (sec):         80          Critical Vol./Cap. (X):      0.549
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      22.7
Optimal Cycle:       53          Level Of Service:               C
************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0    0    0    0   25   25    0    0    0   20   20    0
Lanes:       0  0  0  0  0   0  0  1  1  0   0  0  0  0  0   0  1  1  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0    0    0    0  580  154    0    0    0   50  604    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  0    0    0    0  580  154    0    0    0   50  604    0
Added Vol:    0    0    0    0   12    5    0    0    0    0  100    0
Future:       0    0    0    0   70   80    0    0    0   30   60    0
Initial Fut:  0    0    0    0  662  239    0    0    0   80  764    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0    0    0    0  662  239    0    0    0   80  764    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  0    0    0    0  662  239    0    0    0   80  764    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0    0    0    0  662  239    0    0    0   80  764    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.91 0.91 1.00 1.00 1.00 0.95 0.95 1.00
Lanes:      0.00 0.00 0.00 0.00 1.47 0.53 0.00 0.00 0.00 0.19 1.81 0.00
Final Sat.:   0    0    0    0 2546  919    0    0    0  342 3268    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.00 0.26 0.26 0.00 0.00 0.00 0.23 0.23 0.00
Crit Moves:                       ****                       ****
Green/Cycle: 0.00 0.00 0.00 0.00 0.69 0.69 0.00 0.00 0.00 0.26 0.26 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.89 0.89 0.00
Delay/Veh:   0.0  0.0  0.0  0.0  5.7  5.7  0.0  0.0  0.0 40.8 40.8  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0  0.0  5.7  5.7  0.0  0.0  0.0 40.8 40.8  0.0
DesignQueue:  0    0    0    0   10    4    0    0    0    3   27    0
************************************************************************


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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06          Page 63-1
------------------------------------------------------------------------
                         UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
************************************************************************
Intersection #55 Haste Street / Telegraph Avenue
************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):      0.483
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):      14.4
Optimal Cycle:       40          Level Of Service:               B
************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:  16   16    0    0    0    0    0    0    0    0   16   16
Lanes:       0  1  1  0  0   0  0  0  0  0   0  0  0  0  0   0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:   186  476    0    0    0    0    0    0    0    0  470   57
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 186  476    0    0    0    0    0    0    0    0  470   57
Added Vol:    0   12    0    0    0    0    0    0    0    0  100    0
Future:      50  100    0    0    0    0    0    0    0    0   50   30
Initial Fut: 236  588    0    0    0    0    0    0    0    0  620   87
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  236  588    0    0    0    0    0    0    0    0  620   87
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 236  588    0    0    0    0    0    0    0    0  620   87
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  236  588    0    0    0    0    0    0    0    0  620   87
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.93 0.93
Lanes:      0.57 1.43 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.75 0.25
Final Sat.: 1034 2576    0    0    0    0    0    0    0    0 3109  436
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.23 0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.20 0.20
Crit Moves:       ****                                           ****
Green/Cycle: 0.40 0.40 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.49 0.49
Volume/Cap: 0.57 0.57 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.41 0.41
Delay/Veh:  16.2 16.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 12.3 12.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.2 16.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0 12.3 12.3
DesignQueue:  6   15    0    0    0    0    0    0    0    0   13    2
************************************************************************


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                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #56 Haste Street / College Avenue
**************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):         0.494
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):    11.3
Optimal Cycle:       40          Level Of Service:                  B
**************************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  16   16    0    0   16   16    0    0    0   16   16   16
Lanes:        0    1    0    0    0    0    1    0    0    0    0    0    1    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    88  236    0    0  337   56    0    0    0   90  244   29
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 88  236    0    0  337   56    0    0    0   90  244   29
Added Vol:    2   11    0    0   51    1    0    0    0    0    2    0
Future:      30   70    0    0   80   30    0    0    0   30   30   40
Initial Fut:120  317    0    0  468   87    0    0    0  120  276   69
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 120  317    0    0  468   87    0    0    0  120  276   69
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:120  317    0    0  468   87    0    0    0  120  276   69
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 120  317    0    0  468   87    0    0    0  120  276   69
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.76 0.76 1.00 1.00 0.98 0.98 1.00 1.00 1.00 0.91 0.91 0.91
Lanes:      0.27 0.73 0.00 0.00 0.84 0.16 0.00 0.00 0.00 0.51 1.19 0.30
Final Sat.: 396 1046    0    0 1569  292    0    0    0  891 2049  512
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.30 0.30 0.00 0.00 0.30 0.30 0.00 0.00 0.00 0.13 0.13 0.13
Crit Moves:      ****                                          ****
Green/Cycle:0.61 0.61 0.00 0.00 0.61 0.61 0.00 0.00 0.00 0.27 0.27 0.27
Volume/Cap: 0.49 0.49 0.00 0.00 0.49 0.49 0.00 0.00 0.00 0.49 0.49 0.49
Delay/Veh:   6.0  6.0  0.0  0.0  5.5  5.5  0.0  0.0  0.0 23.3 23.3 23.3
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  6.0  6.0  0.0  0.0  5.5  5.5  0.0  0.0  0.0 23.3 23.3 23.3
DesignQueue:  2    5    0    0    8    1    0    0    0    4    8    2
**************************************************************************
```

```
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #57 Dwight Way / Martin Luther King Way
**************************************************************************
Cycle (sec):         75          Critical Vol./Cap. (X):         0.993
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):    28.5
Optimal Cycle:      137          Level Of Service:                  C
**************************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0    1    0    1    0    0    1    0    1    0    0    1    0    1    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 5 Dec 2002 << 4:00-6:00 PM
Base Vol:    71  821   60  113  860  272   49  444  111    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 71  821   60  113  860  272   49  444  111    0    0    0
Added Vol:   17   13    0    0   15   85    0   14    4    0    0    0
Future:      10  220   10   20   90   10   20   50   10    0    0    0
Initial Fut: 98 1054   70  133  965  367   69  508  125    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  98 1054   70  133  965  367   69  508  125    0    0    0
Reduct Vol:   0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 98 1054   70  133  965  367   69  508  125    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  98 1054   70  133  965  367   69  508  125    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.64 0.64 0.64 0.61 0.61 0.61 0.90 0.90 0.90 1.00 1.00 1.00
Lanes:      0.16 1.73 0.11 0.18 1.32 0.50 0.20 1.45 0.35 0.00 0.00 0.00
Final Sat.: 195 2095  139  212 1535  584  336 2473  609    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.50 0.50 0.50 0.63 0.63 0.63 0.21 0.21 0.21 0.00 0.00 0.00
Crit Moves:                ****           ****
Green/Cycle:0.63 0.63 0.63 0.63 0.63 0.63 0.21 0.21 0.21 0.00 0.00 0.00
Volume/Cap: 0.79 0.79 0.79 0.99 0.99 0.99 0.99 0.99 0.99 0.00 0.00 0.00
Delay/Veh:   9.3  9.3  9.3 28.5 28.5 28.5 61.9 61.9 61.9  0.0  0.0  0.0
User DelAdj:1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  9.3  9.3  9.3 28.5 28.5 28.5 61.9 61.9 61.9  0.0  0.0  0.0
DesignQueue:  2   18    1    2   16    6    2   18    4    0    0    0
**************************************************************************
```

```
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #58 Dwight Way / Shattuck Avenue
*******************************************************************************
Cycle (sec):         75            Critical Vol./Cap. (X):        0.925
Loss Time (sec):     12 (Y+R =  5 sec) Average Delay (sec/veh):     16.6
Optimal Cycle:      102            Level Of Service:                  B
*******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            ------------|---------------||---------------||---------------|
Control:       Permitted        Prot+Permit        Permitted        Permitted
Rights:        Include          Include          Include          Include
Min. Green:    0   0   0     0   0   0     0   0   0     0   0   0
Lanes:       0  0  1  1  0   1  0  1  1  0   0  1  0  1  0   0  0  0  0  0
            ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0 1273  123   133 1390    0    77  426  200    0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0 1273  123   133 1390    0    77  426  200    0    0    0
Added Vol:     0   32    0    12  220    0     5   10    0    0    0    0
Future:        0  160   30    10  140    0    10   50   10    0    0    0
Initial Fut:   0 1465  153   155 1750    0    92  486  210    0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0 1465  153   155 1750    0    92  486  210    0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0    0    0    0
Reduced Vol:   0 1465  153   155 1750    0    92  486  210    0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0 1465  153   155 1750    0    92  486  210    0    0    0
            ------------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 0.94 0.94  0.24 0.95 0.95  0.88 0.88 0.88  1.00 1.00 1.00
Lanes:      0.00 1.81 0.19  1.00 2.00 0.00  0.23 1.24 0.53  0.00 0.00 0.00
Final Sat.:    0 3223  337   460 3610    0   388 2052  887    0    0    0
            ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.45 0.45  0.34 0.48 0.00  0.24 0.24 0.24  0.00 0.00 0.00
Crit Moves:      ****           ****           ****
Green/Cycle: 0.00 0.49 0.49  0.58 0.58 0.00  0.26 0.26 0.26  0.00 0.00 0.00
Volume/Cap: 0.00 0.93 0.93  0.58 0.83 0.00  0.93 0.93 0.93  0.00 0.00 0.00
Delay/Veh:   0.0 16.2 16.2  13.4  4.8  0.0  44.5 44.5 44.5   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 16.2 16.2  13.4  4.8  0.0  44.5 44.5 44.5   0.0  0.0  0.0
DesignQueue:   0   35    4     6   35    0     3   16    7    0    0    0
*******************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #59 Dwight Way / Fulton Street
*******************************************************************************
Cycle (sec):         75            Critical Vol./Cap. (X):        0.618
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     17.3
Optimal Cycle:       45            Level Of Service:                  B
*******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            ------------|---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:        Include          Include          Include          Include
Min. Green:    0   0  21    21   0   0     0  16  16     0   0   0
Lanes:       0  0  0  0  1   2  0  0  0  0   0  0  1  1  0   0  0  0  0  0
            ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0   62   631    0    0     0  664   15    0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   0    0   62   631    0    0     0  664   15    0    0    0
Added Vol:     0    0    0    12    0    0     0   22    0    0    0    0
Future:        0    0   20   100    0    0     0   60   30    0    0    0
Initial Fut:   0    0   82   743    0    0     0  746   45    0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    0    0   82   743    0    0     0  746   45    0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0    0    0    0
Reduced Vol:   0    0   82   743    0    0     0  746   45    0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    0    0   82   743    0    0     0  746   45    0    0    0
            ------------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 0.87  0.59 1.00 1.00  1.00 0.94 0.94  1.00 1.00 1.00
Lanes:      0.00 0.00 1.00  2.00 0.00 0.00  0.00 1.89 0.11  0.00 0.00 0.00
Final Sat.:    0    0 1644  2245    0    0     0 3374  204    0    0    0
            ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.05  0.33 0.00 0.00  0.00 0.22 0.22  0.00 0.00 0.00
Crit Moves:                 ****                      ****
Green/Cycle: 0.00 0.00 0.54  0.54 0.00 0.00  0.00 0.36 0.36  0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.09  0.62 0.00 0.00  0.00 0.62 0.62  0.00 0.00 0.00
Delay/Veh:   0.0  0.0  8.7  14.5  0.0  0.0   0.0 20.8 20.8   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  8.7  14.5  0.0  0.0   0.0 20.8 20.8   0.0  0.0  0.0
DesignQueue:   0    0    2    15    0    0     0   21    1    0    0    0
*******************************************************************************
```

```
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #60 Dwight Way / Telegraph Avenue
********************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):          0.969
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    32.3
Optimal Cycle:     122          Level Of Service:                    C
********************************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:    0  15   15    0    0    0   17   17   17    0    0    0
Lanes:         0  0 1 0      0  0  0  0  0   0  1  0  1  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0   590   149    0    0    0  130  671  813    0    0    0
Growth Adj: 1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0   590   149    0    0    0  130  671  813    0    0    0
Added Vol:     0     4     0    0    0    0    9   25   27    0    0    0
Future:        0   120    10    0    0    0   10   60  100    0    0    0
Initial Fut:   0   714   159    0    0    0  149  756  940    0    0    0
User Adj:   1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0   714   159    0    0    0  149  756  940    0    0    0
Reduct Vol:    0     0     0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0   714   159    0    0    0  149  756  940    0    0    0
PCE Adj:    1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0   714   159    0    0    0  149  756  940    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00  0.92  0.92 1.00 1.00 1.00 0.81 0.81 0.81 1.00 1.00 1.00
Lanes:      0.00  1.64  0.36 0.00 0.00 0.00 0.16 0.84 1.00 0.00 0.00 0.00
Final Sat.:    0  2873   640    0    0    0  254 1287 1541    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00  0.25  0.25 0.00 0.00 0.00 0.59 0.59 0.61 0.00 0.00 0.00
Crit Moves:       ****                           ****
Green/Cycle: 0.00 0.26  0.26 0.00 0.00 0.00 0.63 0.63 0.63 0.00 0.00 0.00
Volume/Cap: 0.00  0.97  0.97 0.00 0.00 0.00 0.93 0.93 0.97 0.00 0.00 0.00
Delay/Veh:   0.0  49.6  49.6  0.0  0.0  0.0 21.3 21.3 26.9  0.0  0.0  0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  49.6  49.6  0.0  0.0  0.0 21.3 21.3 26.9  0.0  0.0  0.0
DesignQueue:   0    22     5    0    0    0    2   12   16    0    0    0
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #61 Dwight Way / College Avenue
********************************************************************************
Cycle (sec):        70          Critical Vol./Cap. (X):          0.614
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):    14.5
Optimal Cycle:      39          Level Of Service:                    B
********************************************************************************
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:    0  16   16   16   16    0   15   15   15    0    0    0
Lanes:         0  0 0 1 0    0  1  0  0  0   0  1  0  1  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0   294    52   49  374    0   34  483  129    0    0    0
Growth Adj: 1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0   294    52   49  374    0   34  483  129    0    0    0
Added Vol:     0    12     0    0   51    0    1   20    4    0    0    0
Future:        0    50    60   20   80    0   30    0   10    0    0    0
Initial Fut:   0   356   112   69  505    0   65  503  143    0    0    0
User Adj:   1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0   356   112   69  505    0   65  503  143    0    0    0
Reduct Vol:    0     0     0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0   356   112   69  505    0   65  503  143    0    0    0
PCE Adj:    1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00  1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0   356   112   69  505    0   65  503  143    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900  1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00  0.97  0.97 0.90 0.90 1.00 0.89 0.89 0.89 1.00 1.00 1.00
Lanes:      0.00  0.76  0.24 0.12 0.88 0.00 0.18 1.42 0.40 0.00 0.00 0.00
Final Sat.:    0  1399   440  206 1509    0  311 2403  683    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00  0.25  0.25 0.33 0.33 0.00 0.21 0.21 0.21 0.00 0.00 0.00
Crit Moves:                        ****            ****
Green/Cycle: 0.00 0.54  0.54 0.54 0.54 0.00 0.34 0.34 0.34 0.00 0.00 0.00
Volume/Cap: 0.00  0.47  0.47 0.61 0.61 0.00 0.61 0.61 0.61 0.00 0.00 0.00
Delay/Veh:   0.0   8.3   8.3 10.5 10.5  0.0 21.7 21.7 21.7  0.0  0.0  0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0   8.3   8.3 10.5 10.5  0.0 21.7 21.7 21.7  0.0  0.0  0.0
DesignQueue:   0     7     2    1   10    0    2   14    4    0    0    0
********************************************************************************
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                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
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                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #62 Dwight Way / Piedmont Avenue / Warring Street
********************************************************************************
Cycle (sec):        70        Critical Vol./Cap. (X):        0.462
Loss Time (sec):     8 (Y+R =  4 sec) Average Delay (sec/veh):     13.6
Optimal Cycle:      61        Level Of Service:               B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:   0   29   29   29   29    0   24   24   24   24    0   24
Lanes:        0  0  1  1  0    0  1  1  0  0    1  0  1  0  1    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0  527    1    8  353    0  132  162  307   53    0  112
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0  527    1    8  353    0  132  162  307   53    0  112
Added Vol:     0   26    0    0  151    0    0    0   20    0    0    0
Future:        0   80   20   10   30    0   20   10   40   30    0   10
Initial Fut:   0  633   21   18  534    0  152  172  367   83    0  122
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0  633   21   18  534    0  152  172  367   83    0  122
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0  633   21   18  534    0  152  172  367   83    0  122
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0  633   21   18  534    0  152  172  367   83    0  122
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.95 0.88 0.88 1.00 0.66 1.00 0.85 0.76 1.00 0.76
Lanes:      0.00 1.94 0.06 0.07 1.93 0.00 1.00 1.00 1.00 0.40 0.00 0.60
Final Sat.:    0 3477  115  109 3244    0 1252 1900 1615  586    0  861
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.18 0.18 0.16 0.16 0.00 0.12 0.09 0.23 0.14 0.00 0.14
Crit Moves:      ****                           ****
Green/Cycle: 0.00 0.41 0.41 0.41 0.41 0.00 0.47 0.47 0.47 0.47 0.00 0.47
Volume/Cap: 0.00 0.44 0.44 0.40 0.40 0.00 0.26 0.19 0.48 0.30 0.00 0.30
Delay/Veh:   0.0 14.9 14.9 14.6 14.6  0.0 11.4 10.9 13.1 11.6  0.0 11.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 14.9 14.9 14.6 14.6  0.0 11.4 10.9 13.1 11.6  0.0 11.6
DesignQueue:   0   15    1    0   13    0    3    4    8    2    0    3
********************************************************************************
```

```
                         UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
```

```
                   Level Of Service Computation Report
           2000 HCM Unsignalized Method (Future Volume Alternative)
********************************************************************************
Intersection #63 Dwight Avenue / Prospect Street
********************************************************************************
Average Delay (sec/veh):      5.6        Worst Case Level Of Service:      B
********************************************************************************
Approach:     North Bound     South Bound       East Bound       West Bound
Movement:   L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign      Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0   27    0  165  187  128    0    0   93   16
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0   27    0  165  187  128    0    0   93   16
Added Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Future:        0    0    0   10    0   20   20   20    0    0   20    0
Initial Fut:   0    0    0   37    0  185  207  148    0    0  113   16
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0    0    0   37    0  185  207  148    0    0  113   16
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:    0    0    0   37    0  185  207  148    0    0  113   16
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx  6.4 xxxx  6.2  4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx  3.5 xxxx  3.3  2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  683 xxxx  121  129 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  418 xxxx  936 1469 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  367 xxxx  936 1469 xxxx xxxxx  xxxx xxxx xxxxx
-----------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  7.9 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:  *    *     *     *    *    *    A    *    *     *    *    *
Movement:    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx  744 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx 11.9 xxxxx  7.9 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:   *    *     *     *    B    *    A    *    *     *    *    *
ApproachDel:    xxxxxx          11.9          xxxxxx          xxxxxx
ApproachLOS:       *              B               *               *
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #64 Adeline Street / Ward Avenue / Shattuck Avenue
*******************************************************************************
Cycle (sec):          90        Critical Vol./Cap. (X):        0.997
Loss Time (sec):       8 (Y+R =  6 sec) Average Delay (sec/veh):     32.5
Optimal Cycle:       180        Level Of Service:                  C
*******************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted       Permitted       Protected       Permitted
Rights:          Include         Include         Include         Include
Min. Green:    0   25   25    0   25   25   19    0   19    0    0    0
Lanes:         0   0   0  1  0   0   0  2  0  1  2   0   0   0  1  0   0   0  0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0  690    5    0  957  825  903    0    2    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0  690    5    0  957  825  903    0    2    0    0    0
Added Vol:     0   24    0    0  182   52    7    0    0    0    0    0
Future:        0   50    0    0   50  110  130    0    0    0    0    0
Initial Fut:   0  764    5    0 1189  987 1040    0    2    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0  764    5    0 1189  987 1040    0    2    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0  764    5    0 1189  987 1040    0    2    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0  764    5    0 1189  987 1040    0    2    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.95 0.85 0.92 1.00 0.85 1.00 1.00 1.00
Lanes:      0.00 0.99 0.01 0.00 2.00 1.00 2.00 0.00 1.00 0.00 0.00 1.00
Final Sat.:    0 1886   12    0 3610 1615 3502    0 1615    0    0 1900
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.41 0.41 0.00 0.33 0.61 0.30 0.00 0.00 0.00 0.00 0.00
Crit Moves:                        ****  ****
Green/Cycle: 0.00 0.61 0.61 0.00 0.61 0.61 0.30 0.00 0.30 0.00 0.00 0.00
Volume/Cap: 0.00 0.66 0.66 0.00 0.54 1.00 1.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh:   0.0 14.3 14.3  0.0 11.0 45.2 58.6  0.0 22.2  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 14.3 14.3  0.0 11.0 45.2 58.6  0.0 22.2  0.0  0.0  0.0
DesignQueue:   0   17    0    0   25   22   39    0    0    0    0    0
*******************************************************************************
```

```
-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                  Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
*******************************************************************************
Intersection #65 Derby Street / Warring Street
*******************************************************************************
Cycle (sec):         100        Critical Vol./Cap. (X):        1.813
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    308.1
Optimal Cycle:         0        Level Of Service:                  F
*******************************************************************************
Approach:        North Bound     South Bound      East Bound      West Bound
Movement:      L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Stop Sign       Stop Sign       Stop Sign       Stop Sign
Rights:          Include         Include         Include         Include
Min. Green:    0    0    0    0    0    0    0    0    0    0    0    0
Lanes:         0   0   0  0  0   0   0  1! 0  0   0   1  0   0  0  0   0  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      0    0    0  765    0   30    7   62    0    0   75  780
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0    0    0  765    0   30    7   62    0    0   75  780
Added Vol:     0    0    0  171    0    0    0    0    0    0    0   26
PasserByVol:   0    0    0  110    0   10    0    0    0    0    0  120
Initial Fut:   0    0    0 1046    0   40    7   62    0    0   75  926
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0    0    0 1046    0   40    7   62    0    0   75  926
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0    0    0 1046    0   40    7   62    0    0   75  926
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0    0    0 1046    0   40    7   62    0    0   75  926
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.00 0.00 0.00 0.96 0.00 0.04 0.10 0.90 0.00 0.00 0.07 0.93
Final Sat.:    0    0    0  577    0   22   53  471    0    0   51  624
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    xxxx xxxx xxxx 1.81 xxxx 1.81 0.13 0.13 xxxx xxxx 1.48 1.48
Crit Moves:                 ****       ****                      ****
Delay/Veh:   0.0  0.0  0.0 387.9  0.0 387.9 10.9 10.9  0.0  0.0  242 241.9
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0 387.9  0.0 387.9 10.9 10.9  0.0  0.0  242 241.9
LOS by Move:  *    *    *    F    *    F    B    B    *    *    F    F
ApproachDel:   xxxxxx         387.9           10.9            241.9
Delay Adj:     xxxxx          1.00            1.00            1.00
ApprAdjDel:   xxxxxx         387.9           10.9            241.9
LOS by Appr:     *             F               B               F
*******************************************************************************
```

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-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #66 Derby Street / Claremont Blvd.
********************************************************************************
Cycle (sec):         65        Critical Vol./Cap. (X):        0.864
Loss Time (sec):      8 (Y+R =  5 sec) Average Delay (sec/veh):    34.3
Optimal Cycle:       71        Level Of Service:                C
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:  18    0   18     0    0    0     0   35   35    35   35    0
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  0  1  0    0  1  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     4    0  225     0    0    0     0  872   11    31  741    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  4    0  225     0    0    0     0  872   11    31  741    0
Added Vol:    0    0    0     0    0    0     0  171    0     0   26    0
PasserByVol:  0    0    0     0    0    0     0  120    0     0  120    0
Initial Fut:  4    0  225     0    0    0     0 1163   11    31  887    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   4    0  225     0    0    0     0 1163   11    31  887    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  4    0  225     0    0    0     0 1163   11    31  887    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   4    0  225     0    0    0     0 1163   11    31  887    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.86 1.00 0.86  1.00 1.00 1.00  1.00 1.00 1.00  0.94 0.94 1.00
Lanes:      0.02 0.00 0.98  0.00 0.00 0.00  0.00 0.99 0.01  0.03 0.97 0.00
Final Sat.:  29    0 1614     0    0    0     0 1880   18    60 1728    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.14 0.00 0.14  0.00 0.00 0.00  0.00 0.62 0.62  0.51 0.51 0.00
Crit Moves: ****                                 ****
Green/Cycle: 0.28 0.00 0.28  0.00 0.00 0.00  0.00 0.60 0.60  0.60 0.60 0.00
Volume/Cap: 0.50 0.00 0.50  0.00 0.00 0.00  0.00 1.03 1.03  0.86 0.86 0.00
Delay/Veh:  23.7  0.0 23.7   0.0  0.0  0.0   0.0 47.9 47.9  19.5 19.5  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 23.7  0.0 23.7   0.0  0.0  0.0   0.0 47.9 47.9  19.5 19.5  0.0
DesignQueue:  0    0    6     0    0    0     0   20    0     1   15    0
********************************************************************************


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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06        Page 75-1
-------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                             PM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #67 Ashby Avenue / Seventh Street
********************************************************************************
Cycle (sec):        110        Critical Vol./Cap. (X):        1.130
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):    94.5
Optimal Cycle:      180        Level Of Service:                F
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Permitted        Permitted       Split Phase      Split Phase
Rights:           Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0  1  0  1  0    0  1  0  1  0    1  0  1  1  0    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:   134  404   68   107  270  476   263  546  113    98  774   31
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:134  404   68   107  270  476   263  546  113    98  774   31
Added Vol:    0    0    0     0    0    0     0   14    0     0   90    0
Future:      60   60   10    90   30    0    30   60   60    20   60   70
Initial Fut:194  464   78   197  300  476   293  620  173   118  924  101
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 194  464   78   197  300  476   293  620  173   118  924  101
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:194  464   78   197  300  476   293  620  173   118  924  101
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 194  464   78   197  300  476   293  620  173   118  924  101
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.48 0.48 0.48  0.52 0.52 0.52  0.95 0.92 0.92  0.95 0.94 0.94
Lanes:      0.53 1.26 0.21  0.40 0.62 0.98  1.00 1.56 0.44  1.00 1.80 0.20
Final Sat.: 481 1151  194   401  611  969  1805 2729  762  1805 3205  350
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.40 0.40 0.40  0.49 0.49 0.49  0.16 0.23 0.23  0.07 0.29 0.29
Crit Moves:                      ****            ****                 ****
Green/Cycle: 0.43 0.43 0.43  0.43 0.43 0.43  0.20 0.20 0.20  0.26 0.26 0.26
Volume/Cap: 0.93 0.93 0.93  1.13 1.13 1.13  0.81 1.13 1.13  0.26 1.13 1.13
Delay/Veh:  47.9 47.9 47.9 104.1  104 104.1  61.5  122 121.9 34.6  114 114.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 47.9 47.9 47.9 104.1  104 104.1  61.5  122 121.9 34.6  114 114.1
DesignQueue:  7   17    3     7   11   18    15   32    9     5   45    5
********************************************************************************


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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06        Page 76-1
-----------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-----------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
*****************************************************************************
Intersection #68 Ashby Avenue / San Pablo Avenue
*****************************************************************************
Cycle (sec):        110         Critical Vol./Cap. (X):      0.891
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   41.1
Optimal Cycle:       99         Level Of Service:              D
*****************************************************************************
Approach:      North Bound    South Bound     East Bound     West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Protected        Protected        Permitted        Permitted
Rights:         Include          Include          Include          Include
Min. Green:    4   17   17     4   19   19    18   18   18    18   18   18
Lanes:       1  0  1  1  0   1  0  1  1  0   1  0  1  1  0   0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 4 Dec 2002 << 4:00-6:00 PM
Base Vol:    162  999   79   185  873  113    86  592  170    20  612  143
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 162  999   79   185  873  113    86  592  170    20  612  143
Added Vol:    13   26   28     0   14   16     0   11    3    58   60    0
Future:       20  190   90    20  320   30    20   90   50    40   90   30
Initial Fut: 195 1215  197   205 1207  159   106  693  223   118  762  173
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 195 1215  197   205 1207  159   106  693  223   118  762  173
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 195 1215  197   205 1207  159   106  693  223   118  762  173
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 195 1215  197   205 1207  159   106  693  223   118  762  173
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.93 0.93  0.95 0.93 0.93  1.00 0.92 0.92  0.88 0.88 0.88
Lanes:      1.00 1.72 0.28  1.00 1.77 0.23  1.00 1.51 0.49  0.22 1.45 0.33
Final Sat.: 1805 3041  493  1805 3136  413  1900 2633  847   377 2432  552
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.11 0.40 0.40  0.11 0.38 0.38  0.06 0.26 0.26  0.31 0.31 0.31
Crit Moves:      ****           ****                             ****
Green/Cycle:0.13 0.50 0.50  0.11 0.48 0.48  0.31 0.31 0.31  0.31 0.31 0.31
Volume/Cap: 0.80 0.80 0.80  0.95 0.80 0.80  0.18 0.84 0.84  1.00 1.00 1.00
Delay/Veh:  63.5 25.6 25.6 111.3 27.1 27.1  26.9 40.2 40.2  64.2 64.2 64.2
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 63.5 25.6 25.6 111.3 27.1 27.1  26.9 40.2 40.2  64.2 64.2 64.2
DesignQueue:  11   41    7    11   42    6     5   31   10     5   34    8
*****************************************************************************



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```

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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06        Page 77-1
-----------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
-----------------------------------------------------------------------------
                  Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
*****************************************************************************
Intersection #69 Ashby Avenue / Adeline Street
*****************************************************************************
Cycle (sec):        140         Critical Vol./Cap. (X):      0.627
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):   39.4
Optimal Cycle:       86         Level Of Service:              D
*****************************************************************************
Approach:      North Bound    South Bound     East Bound     West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:      Protected        Protected        Protected        Protected
Rights:         Include          Include          Include          Include
Min. Green:    4   32   32     6   38   38     4   22   22     4   32   32
Lanes:       1  0  1  1  0   1  0  2  1  0   1  0  1  1  0   1  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     92  693   85    31  700  169   135  491   39    68  547   39
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  92  693   85    31  700  169   135  491   39    68  547   39
Added Vol:     1    2    0     0   11   40     6   22    4     0   57    0
Future:       60   70   10    10   10   80    50  160   20    10   50   10
Initial Fut: 153  765   95    41  721  289   191  673   63    78  654   49
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume: 153  765   95    41  721  289   191  673   63    78  654   49
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 153  765   95    41  721  289   191  673   63    78  654   49
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.: 153  765   95    41  721  289   191  673   63    78  654   49
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.95 0.93 0.93  0.95 0.87 0.87  0.95 0.94 0.94  0.95 0.94 0.94
Lanes:      1.00 1.78 0.22  1.00 2.14 0.86  1.00 1.83 0.17  1.00 1.86 0.14
Final Sat.: 1805 3160  392  1805 3544 1420  1805 3258  305  1805 3325  249
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.08 0.24 0.24  0.02 0.20 0.20  0.11 0.21 0.21  0.04 0.20 0.20
Crit Moves: ****                ****           ****                ****
Green/Cycle:0.14 0.42 0.42  0.04 0.32 0.32  0.17 0.40 0.40  0.08 0.31 0.31
Volume/Cap: 0.63 0.58 0.58  0.53 0.63 0.63  0.63 0.52 0.52  0.52 0.63 0.63
Delay/Veh:  62.3 32.0 32.0  72.4 40.9 40.9  62.1 28.8 28.8  71.6 41.1 41.1
User DelAdj:1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 62.3 32.0 32.0  72.4 40.9 40.9  62.1 28.8 28.8  71.6 41.1 41.1
DesignQueue:  11   37    5     3   40   16    13   33    3     6   37    3
*****************************************************************************



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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06        Page 78-1
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #70 Ashby Avenue / Shattuck Avenue
**************************************************************************
Cycle (sec):        80          Critical Vol./Cap. (X):        0.732
Loss Time (sec):    12 (Y+R =  4 sec) Average Delay (sec/veh):   42.5
Optimal Cycle:      60          Level Of Service:                D
**************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include
Min. Green:  21   21   21    6   21   21   20   20   20   20   20   20
Lanes:        0    1    0    1    0    1    0    0    1    0    1    0    0    1    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     52  556   30  200  585   56   33  536   40   32  541  176
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  52  556   30  200  585   56   33  536   40   32  541  176
Added Vol:     0   14    0   25   99   56    7   14    0    0    1    3
Future:       10   10   10   20   20   10   10  170   20   10   60   20
Initial Fut:  62  580   40  245  704  122   50  720   60   42  602  199
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   62  580   40  245  704  122   50  720   60   42  602  199
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  62  580   40  245  704  122   50  720   60   42  602  199
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   62  580   40  245  704  122   50  720   60   42  602  199
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.49 0.49 0.49 0.89 0.89 0.89 0.90 0.90 0.90 0.88 0.88 0.88
Lanes:      0.18 1.70 0.12 0.46 1.31 0.23 0.12 1.74 0.14 0.10 1.43 0.47
Final Sat.:  168 1573  108  775 2228  386  205 2958  246  166 2376  785
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.37 0.37 0.37 0.32 0.32 0.32 0.24 0.24 0.24 0.25 0.25 0.25
Crit Moves:      ****                                              ****
Green/Cycle: 0.33 0.33 0.33 0.32 0.32 0.32 0.52 0.52 0.52 0.52 0.52 0.52
Volume/Cap: 1.13 1.13 1.13 0.97 0.97 0.97 0.46 0.46 0.46 0.48 0.48 0.48
Delay/Veh:  106.7  107 106.7 47.9 47.9 47.9 12.8 12.8 12.8 13.0 13.0 13.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 106.7  107 106.7 47.9 47.9 47.9 12.8 12.8 12.8 13.0 13.0 13.0
DesignQueue:   2   18    1    8   23    4    1   16    1    1   13    4
**************************************************************************


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CUMULATIVE + LAB + PROJECT Thu Mar 18, 2004 11:33:06        Page 79-1
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                      2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #71 Ashby Avenue / Telegraph Avenue
**************************************************************************
Cycle (sec):        80          Critical Vol./Cap. (X):        1.007
Loss Time (sec):    12 (Y+R =  6 sec) Average Delay (sec/veh):   27.0
Optimal Cycle:     107          Level Of Service:                C
**************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected      Prot+Permit      Protected       Protected
Rights:         Include         Include         Include         Include
Min. Green:  21   21   21    6   21   21   25   25   25   25   25   25
Lanes:        1    0    1    1    0    1    0    1    0    1    1    0    1    1    0    1    1    0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:    210  675   75  176  902   63   68  531  184  148  642   99
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 210  675   75  176  902   63   68  531  184  148  642   99
Added Vol:     1    4    0    2   25    0    0   36    3    0    3    0
Future:       30   80   10   10   60   10   30  110   50   20   50   20
Initial Fut: 241  759   85  188  987   73   98  677  237  168  695  119
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  241  759   85  188  987   73   98  677  237  168  695  119
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 241  759   85  188  987   73   98  677  237  168  695  119
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  241  759   85  188  987   73   98  677  237  168  695  119
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.94 0.94 0.56 0.94 0.94 0.95 0.91 0.91 0.95 0.93 0.93
Lanes:      1.00 1.80 0.20 1.00 1.86 0.14 1.00 1.48 0.52 1.00 1.71 0.29
Final Sat.: 1805 3198  358 1070 3328  246 1805 2570  900 1805 3014  516
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.13 0.24 0.24 0.18 0.30 0.30 0.05 0.26 0.26 0.09 0.23 0.23
Crit Moves:      ****              ****              ****         ****
Green/Cycle: 0.35 0.35 0.35 0.94 0.46 0.46 0.35 0.35 0.35 0.35 0.35 0.35
Volume/Cap: 0.38 0.68 0.68 0.19 0.65 0.65 0.16 0.75 0.75 0.27 0.66 0.66
Delay/Veh:  25.7 30.2 30.2  3.0 20.1 20.1 23.8 34.2 34.2 25.3 31.3 31.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 25.7 30.2 30.2  3.0 20.1 20.1 23.8 34.2 34.2 25.3 31.3 31.3
DesignQueue:   9   30    3    6   33    2    4   27   10    6   28    5
**************************************************************************


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                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
```

```
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #72 Ashby Avenue / College Avenue
********************************************************************************
Cycle (sec):         80          Critical Vol./Cap. (X):          0.968
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     39.0
Optimal Cycle:      134          Level Of Service:                    D
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   18   18   18    18   18   18    30   30   30    30   30   30
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     75   293   68   159  279   58    15  683   87    10  466  151
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  75  293   68   159  279   58    15  683   87    10  466  151
Added Vol:     0    3    0    37   20   -2     2   35    0     0    5    7
Future:       10   60   10    20   60   10    10  120   20    10   60   30
Initial Fut:  85  356   78   216  359   66    27  838  107    20  531  188
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   85  356   78   216  359   66    27  838  107    20  531  188
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  85  356   78   216  359   66    27  838  107    20  531  188
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   85  356   78   216  359   66    27  838  107    20  531  188
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.78 0.78 0.78  0.99 0.99 0.99  0.99 0.99 0.99  0.97 0.97 0.97
Lanes:       0.16 0.69 0.15  0.34 0.56 0.10  0.03 0.86 0.11  0.03 0.72 0.25
Final Sat.:  242 1012  222   631 1049  193    52 1613  206    50 1319  467
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.35 0.35 0.35  0.34 0.34 0.34  0.52 0.52 0.52  0.40 0.40 0.40
Crit Moves:       ****                            ****
Green/Cycle: 0.38 0.38 0.38  0.38 0.38 0.38  0.53 0.53 0.53  0.53 0.53 0.53
Volume/Cap:  0.94 0.94 0.94  0.91 0.91 0.91  0.99 0.99 0.99  0.77 0.77 0.77
Delay/Veh:   49.8 49.8 49.8  42.0 42.0 42.0  45.0 45.0 45.0  20.9 20.9 20.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  49.8 49.8 49.8  42.0 42.0 42.0  45.0 45.0 45.0  20.9 20.9 20.9
DesignQueue:   3   11    2     7   11    2     1   20    3     0   12    4
********************************************************************************
```

```
                          UC Berkeley LRDP EIR
                       2020 With Project Conditions
                             PM Peak Hour
```

```
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #73 Ashby Avenue / Claremont Avenue
********************************************************************************
Cycle (sec):         70          Critical Vol./Cap. (X):          0.777
Loss Time (sec):     12 (Y+R = 12 sec) Average Delay (sec/veh):     26.6
Optimal Cycle:       72          Level Of Service:                    C
********************************************************************************
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase      Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   16   16   16    16   16   16    28   28   28    28   28   28
Lanes:        0  1  0  1  0    1  1  0  1  0    0  1  0  1  0    0  1  0  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     45   373  189   432  285   49    47  592    5    66  504  232
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  45  373  189   432  285   49    47  592    5    66  504  232
Added Vol:     0    0    0   171    0    0     0   72    0     0   12   26
Future:       10   60   20    60   50   20    40  130   10    10   60   20
Initial Fut:  55  433  209   663  335   69    87  794   15    76  576  278
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   55  433  209   663  335   69    87  794   15    76  576  278
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  55  433  209   663  335   69    87  794   15    76  576  278
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   55  433  209   663  335   69    87  794   15    76  576  278
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
Lanes:       0.16 1.24 0.60  1.87 0.94 0.19  0.19 1.78 0.03  0.16 1.24 0.60
Final Sat.:  285 2243 1082  3365 1700  350   351 3199   60   295 2236 1079

-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.19 0.19  0.20 0.20 0.20  0.25 0.25 0.25  0.26 0.26 0.26
Crit Moves: ****                  ****                            ****
Green/Cycle: 0.22 0.22 0.22  0.22 0.22 0.22  0.39 0.39 0.39  0.39 0.39 0.39
Volume/Cap:  0.87 0.87 0.87  0.89 0.89 0.89  0.64 0.64 0.64  0.66 0.66 0.66
Delay/Veh:   37.0 37.0 37.0  35.4 35.4 35.4  17.2 17.2 17.2  17.6 17.6 17.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  37.0 37.0 37.0  35.4 35.4 35.4  17.2 17.2 17.2  17.6 17.6 17.6
DesignQueue:   2   14    7    22   11    2     2   21    0     2   15    7
********************************************************************************
```

```
                          UC Berkeley LRDP EIR
                     2020 With Project Conditions
                            PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #74 Tunnel Road / SR 13
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.895
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     16.4
Optimal Cycle:       80          Level Of Service:                  B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected       Split Phase      Split Phase
Rights:         Include          Include          Include           Ovl
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0  0  2  0  1    2  0  1  0  0    0  0  0  0  0    1  0  0  0  2
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Nov 2002 << 4:00 - 6:00 PM
Base Vol:       0 1130  256    534 1095    0      0    0    0    128    0  155
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:    0 1130  256    534 1095    0      0    0    0    128    0  155
Added Vol:      0   38    0    122  121    0      0    0    0      0    0    0
Future:         0   80    0     70  140    0      0    0    0      0    0   10
Initial Fut:    0 1248  256    726 1356    0      0    0    0    128    0  165
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     0 1248  256    726 1356    0      0    0    0    128    0  165
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:    0 1248  256    726 1356    0      0    0    0    128    0  165
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:     0 1248  256    726 1356    0      0    0    0    128    0  165
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:  1.00 0.95 0.85  0.92 1.00 1.00   1.00 1.00 1.00   0.95 1.00 0.75
Lanes:       0.00 2.00 1.00  2.00 1.00 0.00   0.00 0.00 0.00   1.00 0.00 2.00
Final Sat.:     0 3610 1615  3502 1900    0      0    0    0   1805    0 2842
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.35 0.16  0.21 0.71 0.00   0.00 0.00 0.00   0.07 0.00 0.06
Crit Moves:  ****             ****                              ****
Green/Cycle: 0.00 0.50 0.50  0.30 0.80 0.00   0.00 0.00 0.00   0.08 0.00 0.38
Volume/Cap:  0.00 0.69 0.32  0.69 0.89 0.00   0.00 0.00 0.00   0.89 0.00 0.15
Delay/Veh:    0.0 13.7  9.9   22.2 11.9  0.0    0.0  0.0  0.0   75.1  0.0 13.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:   0.0 13.7  9.9   22.2 11.9  0.0    0.0  0.0  0.0   75.1  0.0 13.4
DesignQueue:    0   25    5     19   12    0      0    0    0      4    0    4
********************************************************************************
```

```
                          UC Berkeley LRDP EIR
                  2020 With Project Conditions (Mitigated)
                            AM Peak Hour
--------------------------------------------------------------------------------
                          Scenario Report
Scenario:            CUMULATIVE + LAB + PROJECT AM

Command:             CUMULATIVE + PROJECT AM
Volume:              CUMULATIVE AM
Geometry:            CUMULATIVE + PROJECT AM
Impact Fee:          Default Impact Fee
Trip Generation:     AM LAB 2020 WITH PROJECT
Trip Distribution:   Cumulative With Lab AM
Paths:               Default Paths
Routes:              Default Routes
Configuration:       CUMULATIVE LAB AM
```

```
--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                              AM Peak Hour
--------------------------------------------------------------------------------
                         Impact Analysis Report
                          Level Of Service

Intersection                      Base            Future        Change
                                 Del/    V/      Del/    V/       in
                             LOS Veh    C    LOS Veh    C
#  8 Cedar Street / Oxford Street    B  15.3 0.618   B  18.7 0.785  + 3.328 D/V

# 28 Addison Street / Oxford Street  A   1.2 0.400   A   1.5 0.510  + 0.276 D/V

# 33 Allston Way / Oxford Street     A   1.4 0.441   A   2.3 0.593  + 0.819 D/V

# 34 Kittridge Street / Oxford Stre  A   1.0 0.335   A   2.3 0.529  + 1.392 D/V

# 38 Bancroft Way / Ellsworth Stree      0.0 0.000       0.0 0.000  + 0.000 V/C

# 43 Bancroft Way / Piedmont Avenue  C  20.3 0.836   F  86.7 1.224  + 0.388 V/C

# 48 Durant Avenue / Piedmont Avenu  B  10.2 0.345   B  12.3 0.498  + 2.114 D/V

# 65 Derby Street / Warring Street   A   5.2 0.414   A   5.4 0.486  + 0.111 D/V
```

```
CUMULATIVE + LAB + PROJECT Wed Mar 31, 2004 17:05:08          Page 16-1          CUMULATIVE + LAB + PROJECT Wed Mar 31, 2004 17:05:09          Page 36-1
--------------------------------------------------------------------------------  --------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR                                                              UC Berkeley LRDP EIR
                  2020 With Project Conditions (Mitigated)                                          2020 With Project Conditions (Mitigated)
                            AM Peak Hour                                                                      AM Peak Hour
--------------------------------------------------------------------------------  --------------------------------------------------------------------------------
                  Level Of Service Computation Report                                              Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)                           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************    ********************************************************************************
Intersection #8 Cedar Street / Oxford Street                                      Intersection #28 Addison Street / Oxford Street
********************************************************************************    ********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):        0.785              Cycle (sec):         100          Critical Vol./Cap. (X):        0.510
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     18.7           Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      1.5
Optimal Cycle:       55          Level Of Service:                 B               Optimal Cycle:       29          Level Of Service:                 A
********************************************************************************    ********************************************************************************
Approach:      North Bound     South Bound      East Bound      West Bound         Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  - T  - R    L  - T  - R    L  - T  - R    L  - T  - R              Movement:    L  - T  - R    L  - T  - R    L  - T  - R    L  - T  - R
-----------|---------------||---------------||---------------||---------------|    -----------|---------------||---------------||---------------||---------------|
Control:       Permitted       Permitted       Permitted       Permitted          Control:       Permitted       Permitted       Permitted       Permitted
Rights:         Include         Include         Include         Include            Rights:         Include         Include         Include         Include
Min. Green:  16   16   16    16   16   16    16   16   16    16   16   16          Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    1  0  0  1  0      Lanes:         1  0  2  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|    -----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 7:00 AM - 9:00 AM                      Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     45  186   56    34  531   19    18  314   75   144  343   19         Base Vol:     54  647    0     0 1165   61     4    0   31     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00         Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  45  186   56    34  531   19    18  314   75   144  343   19         Initial Bse:  54  647    0     0 1165   61     4    0   31     0    0    0
Added Vol:     2   13    0     0  115    9     1    0   15     0    0    0          Added Vol:    20   60    0     0  207   18     2    0    2     0    0    0
Future:       30   20   10    10   10    0    10   40   30    10  120    0          PasserByVol:  20  140    0     0   90   10     0    0   10     0    0    0
Initial Fut:  77  219   66    44  656   28    29  354  120   154  463   19         Initial Fut:  94  847    0     0 1462   89     6    0   43     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00         User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00         PHF Adj:    0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:   77  219   66    44  656   28    29  354  120   154  463   19         PHF Volume:  103  931    0     0 1607   98     7    0   47     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0          Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  77  219   66    44  656   28    29  354  120   154  463   19         Reduced Vol: 103  931    0     0 1607   98     7    0   47     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00         PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00         MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   77  219   66    44  656   28    29  354  120   154  463   19         Final Vol.:  103  931    0     0 1607   98     7    0   47     0    0    0
-----------|---------------||---------------||---------------||---------------|    -----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:                                                           Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900        Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.76 0.76 0.76  0.96 0.96 0.96  0.92 0.92 0.92  0.72 0.99 0.99        Adjustment: 0.13 0.95 1.00  1.00 0.94 0.94  0.85 1.00 0.85  1.00 1.00 1.00
Lanes:      0.21 0.61 0.18  0.06 0.90 0.04  0.06 0.70 0.24  1.00 0.96 0.04        Lanes:      1.00 2.00 0.00  0.00 1.89 0.11  0.12 0.00 0.88  0.00 0.00 0.00
Final Sat.:  306  871  262   110 1639   70   101 1227  416  1362 1814   74         Final Sat.:  249 3610    0     0 3372  205   198    0 1420     0    0    0
-----------|---------------||---------------||---------------||---------------|    -----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:                                                         Capacity Analysis Module:
Vol/Sat:    0.25 0.25 0.25  0.40 0.40 0.40  0.29 0.29 0.29  0.11 0.26 0.26        Vol/Sat:    0.42 0.26 0.00  0.00 0.48 0.48  0.03 0.00 0.03  0.00 0.00 0.00
Crit Moves:                      ****            ****                              Crit Moves:                      ****            ****
Green/Cycle: 0.50 0.49 0.49  0.50 0.50 0.50  0.39 0.39 0.39  0.39 0.40 0.40        Green/Cycle: 0.93 0.93 0.00  0.00 0.93 0.93  0.07 0.00 0.07  0.00 0.00 0.00
Volume/Cap: 0.50 0.51 0.51  0.80 0.80 0.80  0.75 0.75 0.75  0.29 0.65 0.65        Volume/Cap: 0.44 0.28 0.00  0.00 0.51 0.51  0.51 0.00 0.51  0.00 0.00 0.00
Delay/Veh:  10.8 11.5 11.5  17.7 17.7 17.7  24.8 24.8 24.8  15.3 20.3 20.3        Delay/Veh:   1.7  0.3  0.0   0.0  0.5  0.5  49.3  0.0 49.3   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00        User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 10.8 11.5 11.5  17.7 17.7 17.7  24.8 24.8 24.8  15.3 20.3 20.3        AdjDel/Veh:  1.7  0.3  0.0   0.0  0.5  0.5  49.3  0.0 49.3   0.0  0.0  0.0
DesignQueue:   1    4    1     1   13    1     1    8    3     3   11    0         DesignQueue:   0    4    0     0    7    0     0    0    2     0    0    0
********************************************************************************    ********************************************************************************




 Traffix 7.5.0715 (c) 2002 Dowling Assoc. Licensed to FEHR & PEERS,  LAFAYETTE     Traffix 7.5.0715 (c) 2002 Dowling Assoc. Licensed to FEHR & PEERS,  LAFAYETTE
```

```
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                  2020 With Project Conditions (Mitigated)
                              AM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
**************************************************************************
Intersection #33 Allston Way / Oxford Street
**************************************************************************
Cycle (sec):        100           Critical Vol./Cap. (X):         0.593
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      2.3
Optimal Cycle:       35           Level Of Service:                  A
**************************************************************************
Approach:        North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted         Permitted         Permitted         Permitted
Rights:           Include           Include           Include           Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0    1    1  0  0  0    1    0  1  0  1    0    0  0  1  0    0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     17  798    0    59 1111   34    16    0   33     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  17  798    0    59 1111   34    16    0   33     0    0    0
Added Vol:     0   75    0     0  214    0     0    0    0     0    0    0
Future:       10  130    0    10   80   10     0    0   30     0    0    0
Initial Fut:  27 1003    0    69 1405   44    16    0   63     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93
PHF Volume:   29 1078    0    74 1511   47    17    0   68     0    0    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  29 1078    0    74 1511   47    17    0   68     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   29 1078    0    74 1511   47    17    0   68     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.83 0.83 1.00  0.78 0.78 0.78  0.83 1.00 0.85  1.00 1.00 1.00
Lanes:      0.05 1.95 0.00  0.09 1.85 0.06  0.83 0.00 1.00  0.00 0.00 0.00
Final Sat.:   82 3058    0   135 2742   86  1575    0 1615     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.35 0.35 0.00  0.55 0.55 0.55  0.01 0.00 0.04  0.00 0.00 0.00
Crit Moves:                 ****                ****
Green/Cycle: 0.93 0.93 0.00  0.93 0.93 0.93  0.07 0.00 0.07  0.00 0.00 0.00
Volume/Cap: 0.38 0.38 0.00  0.59 0.59 0.59  0.15 0.00 0.59  0.00 0.00 0.00
Delay/Veh:   0.5  0.5  0.0   0.9  0.9  0.9  44.3  0.0 53.2   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.5  0.5  0.0   0.9  0.9  0.9  44.3  0.0 53.2   0.0  0.0  0.0
DesignQueue:   0    5    0     0    7    0     1    0    4     0    0    0
**************************************************************************
```

```
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                  2020 With Project Conditions (Mitigated)
                              AM Peak Hour
--------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
****************************************************************************
Intersection #34 Kittridge Street / Oxford Street / Fulton Street
****************************************************************************
Cycle (sec):        100           Critical Vol./Cap. (X):         0.529
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      2.3
Optimal Cycle:       31           Level Of Service:                  A
****************************************************************************
Approach:        North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R     L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:         Permitted         Permitted         Permitted         Permitted
Rights:           Include           Include           Include           Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         0    1    0  1  0  0    1    0  1  0  0    0   1!  0  0  0    0  1!  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:     13  801    0     0 1122   18     6    0   23     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  13  801    0     0 1122   18     6    0   23     0    0    0
Added Vol:     0   68   23    69  145    0     0   27    0     2    3    7
Future:        0  120    0     0   70   30    10    0   10     0    0    0
Initial Fut:  13  989   23    69 1337   48    16   27   33     2    3    7
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   13  989   23    69 1337   48    16   27   33     2    3    7
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  13  989   23    69 1337   48    16   27   33     2    3    7
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   13  989   23    69 1337   48    16   27   33     2    3    7
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 0.88 0.88 0.88  0.79 0.79 0.79  0.89 0.89 0.89  0.86 0.86 0.86
Lanes:      0.03 1.93 0.04  0.09 1.84 0.07  0.21 0.36 0.43  0.17 0.25 0.58
Final Sat.:   42 3230   75   143 2761   99   356  600  734   274  411  959
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.31 0.31 0.31  0.48 0.48 0.48  0.04 0.04 0.04  0.01 0.01 0.01
Crit Moves:                 ****                ****
Green/Cycle: 0.91 0.91 0.91  0.91 0.91 0.91  0.09 0.09 0.09  0.09 0.09 0.09
Volume/Cap: 0.33 0.33 0.33  0.53 0.53 0.53  0.53 0.53 0.53  0.09 0.09 0.09
Delay/Veh:   0.6  0.6  0.6   0.9  0.9  0.9  47.5 47.5 47.5  42.4 42.4 42.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.6  0.6  0.6   0.9  0.9  0.9  47.5 47.5 47.5  42.4 42.4 42.4
DesignQueue:   0    5    0     0    7    0     1    1    2     0    0    0
****************************************************************************
```

```
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                              AM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM Unsignalized Method (Future Volume Alternative)
**************************************************************************
Intersection #38 Bancroft Way / Ellsworth Street
**************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):        0.000
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      0.0
Optimal Cycle:        0          Level Of Service:
**************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Protected        Protected
Rights:        Include          Include          Include          Include
Lanes:      1  1  0  0  0    0  0  0  0  1    0  0  0  0  0    0  0  1  1  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    241   60   0    0    0   11    0    0    0    0  674   39
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 241   60   0    0    0   11    0    0    0    0  674   39
Added Vol:    96    0   0    0    0    0    0    0    0    0  128    0
Future:       10    0   0    0    0    0    0    0    0    0  130    0
Initial Fut: 347   60   0    0    0   11    0    0    0    0  932   39
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  347   60   0    0    0   11    0    0    0    0  932   39
Reduct Vol:    0    0   0    0    0    0    0    0    0    0    0    0
Final Vol.:  347   60   0    0    0   11    0    0    0    0  932   39
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:      0    0   0    0    0    0    0    0    0    0    0    0
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.:    0    0   0    0    0    0    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves:
Green/Cycle: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh:   0.0  0.0 0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0 0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
DesignQueue:   0    0   0    0    0    0    0    0    0    0    0    0
**************************************************************************
```

```
--------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                              AM Peak Hour
--------------------------------------------------------------------------
                   Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Future Volume Alternative)
**************************************************************************
Intersection #43 Bancroft Way / Piedmont Avenue
**************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):        1.224
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):     86.7
Optimal Cycle:        0          Level Of Service:                 F
**************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:        Include          Include          Include          Include
Min. Green:    0    0   0    0    0    0    0    0    0    0    0    0
Lanes:      0  1  0  0  0    0  0  0  1  0    0  0  0  0  0    0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:    131  553   0    0  344  123    0    0    0    0    0    0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 131  553   0    0  344  123    0    0    0    0    0    0
Added Vol:   104  103   0    0   46   29    0    0    0    0    0    0
Future:       10   60   0    0   40   60    0    0    0    0    0    0
Initial Fut: 245  716   0    0  430  212    0    0    0    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  245  716   0    0  430  212    0    0    0    0    0    0
Reduct Vol:    0    0   0    0    0    0    0    0    0    0    0    0
Reduced Vol: 245  716   0    0  430  212    0    0    0    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:  245  716   0    0  430  212    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.25 0.75 0.00 0.00 0.67 0.33 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.:  200  585   0    0  537  265    0    0    0    0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    1.22 1.22 xxxx xxxx 0.80 0.80 xxxx xxxx xxxx xxxx xxxx xxxx
Crit Moves:  ****                ****
Delay/Veh: 129.2  129  0.0  0.0 23.0 23.0  0.0  0.0  0.0  0.0  0.0  0.0
Delay Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 129.2  129  0.0  0.0 23.0 23.0  0.0  0.0  0.0  0.0  0.0  0.0
LOS by Move:   F    F    *    *    C    C    *    *    *    *    *    *
ApproachDel:       129.2             23.0           xxxxxx           xxxxxx
Delay Adj:          1.00              1.00           xxxxx            xxxxx
ApprAdjDel:        129.2             23.0           xxxxxx           xxxxxx
LOS by Appr:         F                 C                 *                *
**************************************************************************
```

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-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                              AM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #48 Durant Avenue / Piedmont Avenue
*******************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):         0.498
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    12.3
Optimal Cycle:        45          Level Of Service:                   B
*******************************************************************************
Approach:       North Bound      South Bound       East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           -----------|---------------||---------------||---------------|
Control:        Protected        Protected         Protected        Protected
Rights:          Include          Include           Include          Include
Min. Green:    0    0    0     0    0    0      0    0    0      0    0    0
Lanes:         0  0  1  0  0   0  0  1  0  0    1  0  0  0  1    0  0  0  0  0
           -----------|---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0  489    0     0  345    0    158    0   86      0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   0  489    0     0  345    0    158    0   86      0    0    0
Added Vol:     0  147    0     0   46    0     60    0    9      0    0    0
Future:        0   50    0     0   40    0     30    0   60      0    0    0
Initial Fut:   0  686    0     0  431    0    248    0  155      0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    0  686    0     0  431    0    248    0  155      0    0    0
Reduct Vol:    0    0    0     0    0    0      0    0    0      0    0    0
Reduced Vol:   0  686    0     0  431    0    248    0  155      0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:    0  686    0     0  431    0    248    0  155      0    0    0
           -----------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900   1900 1900 1900
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  0.95 1.00 0.85   1.00 1.00 1.00
Lanes:      0.00 1.00 0.00  0.00 1.00 0.00  1.00 0.00 1.00   0.00 0.00 0.00
Final Sat.:    0 1900    0     0 1900    0   1805    0 1615      0    0    0
           -----------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.36 0.00  0.00 0.23 0.00  0.14 0.00 0.10   0.00 0.00 0.00
Crit Moves:      ****            ****           ****
Green/Cycle: 0.00 0.72 0.00  0.00 0.72 0.00  0.28 0.00 0.28   0.00 0.00 0.00
Volume/Cap: 0.00 0.50 0.00  0.00 0.31 0.00  0.50 0.00 0.35   0.00 0.00 0.00
Delay/Veh:   0.0  6.2  0.0   0.0  5.0  0.0   31.2  0.0 29.5    0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  0.0  6.2  0.0   0.0  5.0  0.0   31.2  0.0 29.5    0.0  0.0  0.0
DesignQueue:   0   12    0     0    7    0     10    0    6      0    0    0
*******************************************************************************
```

```
-------------------------------------------------------------------------------
                           UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                              AM Peak Hour
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #65 Derby Street / Warring Street
*******************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):         0.486
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):     5.4
Optimal Cycle:        44          Level Of Service:                   A
*******************************************************************************
Approach:       North Bound      South Bound       East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
           -----------|---------------||---------------||---------------|
Control:        Split Phase      Split Phase       Split Phase      Split Phase
Rights:          Include          Include           Include          Ignore
Min. Green:    0    0    0     0    0    0      0    0    0      0    0    0
Lanes:         0  0  0  0  0   0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
           -----------|---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 7:00 AM - 9:00 AM
Base Vol:      0    0    0   650    0   31     14   20    0      0   34  779
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   0    0    0   650    0   31     14   20    0      0   34  779
Added Vol:     0    0    0    20    0    0      0    0    0      0    0  193
Future:        0    0    0    90    0   10      0   10    0      0    0   90
Initial Fut:   0    0    0   760    0   41     14   30    0      0   34 1062
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 0.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 0.00
PHF Volume:    0    0    0   760    0   41     14   30    0      0   34    0
Reduct Vol:    0    0    0     0    0    0      0    0    0      0    0    0
Reduced Vol:   0    0    0   760    0   41     14   30    0      0   34    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 0.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 0.00
Final Vol.:    0    0    0   760    0   41     14   30    0      0   34    0
           -----------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900  1900 1900 1900  1900 1900 1900   1900 1900 1900
Adjustment: 1.00 1.00 1.00  0.95 1.00 0.95  0.98 0.98 1.00   1.00 1.00 1.00
Lanes:      0.00 0.00 0.00  0.95 0.00 0.05  0.32 0.68 0.00   0.00 1.00 1.00
Final Sat.:    0    0    0  1710    0   92    595 1275    0      0 1900 1900
           -----------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00  0.44 0.00 0.44  0.02 0.02 0.00   0.00 0.02 0.00
Crit Moves:              ****            ****             ****
Green/Cycle: 0.00 0.00 0.00  0.91 0.00 0.91  0.05 0.05 0.00   0.00 0.04 0.00
Volume/Cap: 0.00 0.00 0.00  0.49 0.00 0.49  0.49 0.49 0.00   0.00 0.49 0.00
Delay/Veh:   0.0  0.0  0.0   0.9  0.0  0.9   50.4 50.4  0.0    0.0 52.5  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0   0.9  0.0  0.9   50.4 50.4  0.0    0.0 52.5  0.0
DesignQueue:   0    0    0     4    0    0      1    2    0      0    2    0
*******************************************************************************
```

UC Berkeley LRDP EIR
2020 With Project Conditions (Mitigated)
PM Peak Hour

Scenario Report
Scenario: CUMULATIVE + LAB + PROJECT PM

Command: CUMULATIVE + PROJECT PM
Volume: CUMULATIVE PM
Geometry: CUMULATIVE + PROJECT PM
Impact Fee: Default Impact Fee
Trip Generation: PM LAB 2020 WITH PROJECT
Trip Distribution: Cumulative With Lab PM
Paths: Default Paths
Routes: Default Routes
Configuration: CUMULATIVE + LAB + PROJECT PM

UC Berkeley LRDP EIR
2020 With Project Conditions (Mitigated)
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	in
# 8 Cedar Street / Oxford Street	B	17.8	0.662	D	48.1	1.050	+30.309 D/V
# 28 Addison Street / Oxford Street	A	5.1	0.377	A	5.9	0.503	+ 0.788 D/V
# 33 Allston Way / Oxford Street	A	4.1	0.430	A	4.6	0.547	+ 0.523 D/V
# 34 Kittridge Street / Oxford Stre	A	4.4	0.415	A	6.3	0.582	+ 1.914 D/V
# 38 Bancroft Way / Ellsworth Stree	B	13.6	0.375	B	13.4	0.505	-0.190 D/V
# 43 Bancroft Way / Piedmont Avenue	C	16.3	0.733	E	36.7	0.979	+ 0.246 V/C
# 48 Durant Avenue / Piedmont Avenu	B	13.0	0.347	B	15.2	0.471	+ 2.207 D/V
# 65 Derby Street / Warring Street	B	11.7	0.658	C	20.2	0.872	+ 8.529 D/V

```
                          UC Berkeley LRDP EIR
                    2020 With Project Conditions (Mitigated)
                               PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #8 Cedar Street / Oxford Street
********************************************************************************
Cycle (sec):         65          Critical Vol./Cap. (X):          1.050
Loss Time (sec):      8 (Y+R =  4 sec) Average Delay (sec/veh):     48.1
Optimal Cycle:      180          Level Of Service:                    D
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            ------------|---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   16   16   16    16   16   16    16   16   16    16   16   16
Lanes:         0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    1  0  0  1  0
            ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      91  464   81    17  196   17    18  307   57    61  340   31
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   91  464   81    17  196   17    18  307   57    61  340   31
Added Vol:     16  112    0     0   14    2     4    0    2     0   -3    0
future:        40   80   20    10   10    0    20  120   40    50  100   10
Initial Fut:  147  656  101    27  220   19    42  427   99   111  437   41
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   147  656  101    27  220   19    42  427   99   111  437   41
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  147  656  101    27  220   19    42  427   99   111  437   41
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   147  656  101    27  220   19    42  427   99   111  437   41
            ------------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.88 0.88 0.88  0.88 0.88 0.88  0.79 0.79 0.79  0.78 0.99 0.99
Lanes:       0.16 0.73 0.11  0.10 0.83 0.07  0.07 0.76 0.17  1.00 0.91 0.09
Final Sat.:   272 1213  187   170 1389  120   110 1123  260  1478 1714  161
            ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.54 0.54 0.54  0.16 0.16 0.16  0.38 0.38 0.38  0.08 0.25 0.25
Crit Moves:       ****                          ****
Green/Cycle: 0.52 0.52 0.52  0.52 0.52 0.52  0.36 0.36 0.36  0.36 0.36 0.36
Volume/Cap:  1.05 1.05 1.05  0.31 0.31 0.31  1.05 1.05 1.05  0.21 0.70 0.70
Delay/Veh:   60.5 60.5 60.5  10.0 10.0 10.0  73.3 73.3 73.3  15.2 23.8 23.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  60.5 60.5 60.5  10.0 10.0 10.0  73.3 73.3 73.3  15.2 23.8 23.8
DesignQueue:    3   13    2     0    4    0     1   11    2     3   11    1
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                    2020 With Project Conditions (Mitigated)
                               PM Peak Hour
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #28 Addison Street / Oxford Street
********************************************************************************
Cycle (sec):        100          Critical Vol./Cap. (X):          0.503
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      5.9
Optimal Cycle:       29          Level Of Service:                    A
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
            ------------|---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0     0    0    0     0    0    0     0    0    0
Lanes:         1  0  2  0  0    0  0  1  1  0    0  0  1! 0  0    0  0  0  0  0
            ------------|---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      32 1006    0     0  952   28    10    0  114     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   32 1006    0     0  952   28    10    0  114     0    0    0
Added Vol:      3  149    0     0   70    2    16    0   18     0    0    0
Future:        10  180    0     0  170   10     0    0   10     0    0    0
Initial Fut:   45 1335    0     0 1192   40    26    0  142     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94  0.94 0.94 0.94
PHF Volume:    48 1420    0     0 1268   43    28    0  151     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   48 1420    0     0 1268   43    28    0  151     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:    48 1420    0     0 1268   43    28    0  151     0    0    0
            ------------|---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.17 0.95 1.00  1.00 0.95 0.95  0.85 1.00 0.85  1.00 1.00 1.00
Lanes:       1.00 2.00 0.00  0.00 1.94 0.06  0.15 0.00 0.85  0.00 0.00 0.00
Final Sat.:   329 3610    0     0 3475  117   251    0 1373     0    0    0
            ------------|---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.15 0.39 0.00  0.00 0.36 0.36  0.11 0.00 0.11  0.00 0.00 0.00
Crit Moves:       ****                          ****
Green/Cycle: 0.78 0.78 0.00  0.00 0.78 0.78  0.22 0.00 0.22  0.00 0.00 0.00
Volume/Cap:  0.19 0.50 0.00  0.00 0.47 0.47  0.50 0.00 0.50  0.00 0.00 0.00
Delay/Veh:    3.1  4.1  0.0   0.0  3.9  3.9  35.5  0.0 35.5   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   3.1  4.1  0.0   0.0  3.9  3.9  35.5  0.0 35.5   0.0  0.0  0.0
DesignQueue:    1   19    0     0   17    1     1    0    7     0    0    0
********************************************************************************
```

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                          UC Berkeley LRDP EIR
                 2020 With Project Conditions (Mitigated)
                             PM Peak Hour
----------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
****************************************************************************
Intersection #33 Allston Way / Oxford Street
****************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):        0.547
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      4.6
Optimal Cycle:       41        Level Of Service:                A
****************************************************************************
Approach:       North Bound     South Bound      East Bound     West Bound
Movement:     L  -  T  -  R   L  -  T  -  R    L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||--------------|
Control:        Permitted       Permitted      Split Phase     Split Phase
Rights:          Include         Include         Include         Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0    1    1    0    0    1    0    1    0    1    0    0    0    1    0    0    0    0    0    0
------------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      46 1002    0   26 1082   75   23    0  110    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   46 1002    0   26 1082   75   23    0  110    0    0    0
Added Vol:      0  156    0    0   83    0    0    0    0    0    0    0
Future:         0  190    0   10  160   10    0    0   30    0    0    0
Initial Fut:   46 1348    0   36 1325   85   23    0  140    0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    46 1348    0   36 1325   85   23    0  140    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   46 1348    0   36 1325   85   23    0  140    0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    46 1348    0   36 1325   85   23    0  140    0    0    0
------------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.80 0.80 1.00 0.83 0.83 0.83 0.95 1.00 0.85 1.00 1.00 1.00
Lanes:       0.07 1.93 0.00 0.05 1.83 0.12 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:   100 2939    0   78 2881  185 1805    0 1615    0    0    0
------------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.46 0.46 0.00 0.46 0.46 0.46 0.01 0.00 0.09 0.00 0.00 0.00
Crit Moves:            ****           ****           ****
Green/Cycle: 0.84 0.84 0.00 0.84 0.84 0.84 0.16 0.00 0.16 0.00 0.00 0.00
Volume/Cap:  0.55 0.55 0.00 0.55 0.55 0.55 0.08 0.00 0.55 0.00 0.00 0.00
Delay/Veh:    2.6  2.6  0.0  2.6  2.6  2.6 36.0  0.0 41.2  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   2.6  2.6  0.0  2.6  2.6  2.6 36.0  0.0 41.2  0.0  0.0  0.0
DesignQueue:    0   13    0    0   13    1    1    0    7    0    0    0
****************************************************************************
```

```
                          UC Berkeley LRDP EIR
                 2020 With Project Conditions (Mitigated)
                             PM Peak Hour
----------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
****************************************************************************
Intersection #34 Kittridge Street / Oxford Street / Fulton Street
****************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):        0.582
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):      6.3
Optimal Cycle:       34        Level Of Service:                A
****************************************************************************
Approach:       North Bound     South Bound      East Bound     West Bound
Movement:     L  -  T  -  R   L  -  T  -  R    L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||--------------|
Control:        Permitted       Permitted       Permitted       Permitted
Rights:          Include         Include         Include         Include
Min. Green:   0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0    1    0    1    0    0    1    0    1    0    0    0    1!   0    0    0    0    1!   0    0
------------|---------------||---------------||---------------||--------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:      45  995    0    0 1108   96   51    0   69    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   45  995    0    0 1108   96   51    0   69    0    0    0
Added Vol:      0   94    3    9   74    0    0    3    0   18   26   62
Future:        20  180    0    0  150   30   10    0   20    0    0    0
Initial Fut:   65 1269    3    9 1332  126   61    3   89   18   26   62
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    65 1269    3    9 1332  126   61    3   89   18   26   62
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   65 1269    3    9 1332  126   61    3   89   18   26   62
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    65 1269    3    9 1332  126   61    3   89   18   26   62
------------|---------------||---------------||---------------||--------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.74 0.74 0.74 0.89 0.89 0.89 0.76 0.76 0.76 0.87 0.87 0.87
Lanes:       0.09 1.90 0.01 0.01 1.82 0.17 0.40 0.02 0.58 0.17 0.25 0.58
Final Sat.:   137 2666    6   21 3067  290  577   28  842  282  407  970
------------|---------------||---------------||---------------||--------------|
Capacity Analysis Module:
Vol/Sat:     0.48 0.48 0.48 0.43 0.43 0.43 0.11 0.11 0.11 0.06 0.06 0.06
Crit Moves:       ****                          ****
Green/Cycle: 0.82 0.82 0.82 0.82 0.82 0.82 0.18 0.18 0.18 0.18 0.18 0.18
Volume/Cap:  0.58 0.58 0.58 0.53 0.53 0.53 0.58 0.58 0.58 0.35 0.35 0.35
Delay/Veh:    3.5  3.5  3.5  3.1  3.1  3.1 40.7 40.7 40.7 36.5 36.5 36.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   3.5  3.5  3.5  3.1  3.1  3.1 40.7 40.7 40.7 36.5 36.5 36.5
DesignQueue:    1   14    0    0   15    1    3    0    4    1    1    3
****************************************************************************
```

```
--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                              PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #38 Bancroft Way / Ellsworth Street
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):          0.505
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    13.4
Optimal Cycle:        29          Level Of Service:                  B
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        1    1    0   0  0    0    0  0  1    0    0  0  0    0    1   1  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     348   11    0    0    0  100    0    0    0    0  877    6
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  348   11    0    0    0  100    0    0    0    0  877    6
Added Vol:     12    0    0    0    0    0    0    0    0    0  157    0
Future:        50    0    0    0    0    0    0    0    0    0  230    0
Initial Fut:  410   11    0    0    0  100    0    0    0    0 1264    6
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   410   11    0    0    0  100    0    0    0    0 1264    6
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  410   11    0    0    0  100    0    0    0    0 1264    6
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   410   11    0    0    0  100    0    0    0    0 1264    6
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.73 0.73 1.00 1.00 1.00 0.87 1.00 1.00 1.00 1.00 0.95 0.95
Lanes:       1.95 0.05 0.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.99 0.01
Final Sat.:  2690   72    0    0    0 1644    0    0    0    0 3589   17
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.15 0.15 0.00 0.00 0.00 0.06 0.00 0.00 0.00 0.00 0.35 0.35
Crit Moves:       ****                             ****
Green/Cycle: 0.30 0.30 0.00 0.00 0.00 0.30 0.00 0.00 0.00 0.00 0.70 0.70
Volume/Cap:  0.50 0.50 0.00 0.00 0.00 0.20 0.00 0.00 0.00 0.00 0.50 0.50
Delay/Veh:   29.2 29.2  0.0  0.0  0.0 26.1  0.0  0.0  0.0  0.0  7.2  7.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  29.2 29.2  0.0  0.0  0.0 26.1  0.0  0.0  0.0  0.0  7.2  7.2
DesignQueue:   16    0    0    0    0    4    0    0    0    0   23    0
********************************************************************************


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--------------------------------------------------------------------------------
                          UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                              PM Peak Hour
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
********************************************************************************
Intersection #43 Bancroft Way / Piedmont Avenue
********************************************************************************
Cycle (sec):         100          Critical Vol./Cap. (X):          0.979
Loss Time (sec):       0 (Y+R =  4 sec) Average Delay (sec/veh):    36.7
Optimal Cycle:         0          Level Of Service:                  E
********************************************************************************
Approach:       North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0    1    0   0  0    0    0  1  0    0    0  0  0    0    0   0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     152  439    0    0  357  159    0    0    0    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  152  439    0    0  357  159    0    0    0    0    0    0
Added Vol:     13   65    0    0   36   46    0    0    0    0    0    0
Future:        10   90    0    0   40   10    0    0    0    0    0    0
Initial Fut:  175  594    0    0  433  215    0    0    0    0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   175  594    0    0  433  215    0    0    0    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  175  594    0    0  433  215    0    0    0    0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   175  594    0    0  433  215    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.23 0.77 0.00 0.00 0.67 0.33 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.:   179  607    0    0  536  266    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.98 0.98 xxxx xxxx 0.81 0.81 xxxx xxxx xxxx xxxx xxxx xxxx
Crit Moves:       ****             ****
Delay/Veh:   48.0 48.0  0.0  0.0 23.2 23.2  0.0  0.0  0.0  0.0  0.0  0.0
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  48.0 48.0  0.0  0.0 23.2 23.2  0.0  0.0  0.0  0.0  0.0  0.0
LOS by Move:  E    E    *    *    C    C    *    *    *    *    *    *
ApproachDel:       48.0             23.2          xxxxxx          xxxxxx
Delay Adj:         1.00             1.00          xxxxx           xxxxx
ApprAdjDel:        48.0             23.2          xxxxxx          xxxxxx
LOS by Appr:        E                C               *               *
********************************************************************************


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CUMULATIVE + LAB + PROJECT Wed Mar 31, 2004 17:06:35          Page 56-1
--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                             PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #48 Durant Avenue / Piedmont Avenue
********************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):         0.471
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):   15.2
Optimal Cycle:       43        Level Of Service:                   B
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Protected        Protected
Rights:          Include          Include          Include          Include
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0  0  1  0  0   0  0  1  0  0   1  0  0  0  1   0  0  0  0  0
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0  398    0     0  427    0   179    0  197     0    0    0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0  398    0     0  427    0   179    0  197     0    0    0
Added Vol:    0   56    0     0   36    0    21    0   79     0    0    0
Future:       0   70    0     0   50    0    40    0   40     0    0    0
Initial Fut:  0  524    0     0  513    0   240    0  316     0    0    0
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   0  524    0     0  513    0   240    0  316     0    0    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0  524    0     0  513    0   240    0  316     0    0    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:   0  524    0     0  513    0   240    0  316     0    0    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  1.00 1.00 1.00  0.95 1.00 0.85  1.00 1.00 1.00
Lanes:      0.00 1.00 0.00  0.00 1.00 0.00  1.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:   0 1900    0     0 1900    0  1805    0 1615     0    0    0
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.28 0.00  0.00 0.27 0.00  0.13 0.00 0.20  0.00 0.00 0.00
Crit Moves:       ****            ****            ****            ****
Green/Cycle: 0.00 0.58 0.00  0.00 0.58 0.00  0.42 0.00 0.42  0.00 0.00 0.00
Volume/Cap: 0.00 0.47 0.00  0.00 0.46 0.00  0.32 0.00 0.47  0.00 0.00 0.00
Delay/Veh:   0.0 12.2  0.0   0.0 12.1  0.0  20.0  0.0 21.8   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 12.2  0.0   0.0 12.1  0.0  20.0  0.0 21.8   0.0  0.0  0.0
DesignQueue:  0   13    0     0   13    0     8    0   11     0    0    0
********************************************************************************



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CUMULATIVE + LAB + PROJECT Wed Mar 31, 2004 17:06:35          Page 73-1
--------------------------------------------------------------------------------
                            UC Berkeley LRDP EIR
                   2020 With Project Conditions (Mitigated)
                             PM Peak Hour
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #65 Derby Street / Warring Street
********************************************************************************
Cycle (sec):        100        Critical Vol./Cap. (X):         0.872
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):   20.2
Optimal Cycle:      145        Level Of Service:                   C
********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
-----------|---------------||---------------||---------------||---------------|
Control:       Permitted        Permitted       Split Phase      Split Phase
Rights:          Include          Include          Include          Ignore
Min. Green:   0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        0  0  0  0  0   0  0  1! 0  0   0  1  0  0  0   0  0  1  0  1
-----------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Nov 2002 << 4:00 - 6:00 PM
Base Vol:     0    0    0   765    0   30     7   62    0     0   75  780
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  0    0    0   765    0   30     7   62    0     0   75  780
Added Vol:    0    0    0   171    0    0     0    0    0     0    0   26
PasserByVol:  0    0    0   110    0   10     0    0    0     0    0  120
Initial Fut:  0    0    0  1046    0   40     7   62    0     0   75  926
User Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Volume:   0    0    0  1046    0   40     7   62    0     0   75    0
Reduct Vol:   0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  0    0    0  1046    0   40     7   62    0     0   75    0
PCE Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
MLF Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00
Final Vol.:   0    0    0  1046    0   40     7   62    0     0   75    0
-----------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  0.72 1.00 0.72  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:      0.00 0.00 0.00  0.96 0.00 0.04  0.10 0.90 0.00  0.00 1.00 1.00
Final Sat.:   0    0    0  1315    0   50   192 1699    0     0 1900 1900
-----------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00  0.80 0.00 0.80  0.04 0.04 0.00  0.00 0.04 0.00
Crit Moves:             ****            ****            ****            ****
Green/Cycle: 0.00 0.00 0.00  0.91 0.00 0.91  0.04 0.04 0.00  0.00 0.05 0.00
Volume/Cap: 0.00 0.00 0.00  0.87 0.00 0.87  0.87 0.87 0.00  0.00 0.87 0.00
Delay/Veh:   0.0  0.0  0.0   8.8  0.0  8.8 107.7 108   0.0   0.0 104  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0  0.0  0.0   8.8  0.0  8.8 107.7 108   0.0   0.0 104  0.0
DesignQueue:  0    0    0     6    0    0     0    3    0     0    4    0
********************************************************************************



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NOISE

TABLE OF CONTENTS

APPENDIX G
NOISE

In preparing this Environmental Impact Report (EIR), noise levels were monitored over 24 hours at three locations designated LT-1, LT-2 and LT-3. These locations were selected to characterize existing ambient levels at representative locations along major roadways and in a quieter area of the City Environs. The results of these long-term measurements are included in this Appendix in both tabular and graphical form.

FIGURE G-1   **LT-1: ADJACENT BLOCKS WEST – SHATTUCK AVENUE (2050 DELAWARE) ~ 55 FEET FROM THE CENTERLINE OF SHATTUCK AVENUE – FEBRUARY 26 - 27, 2003**
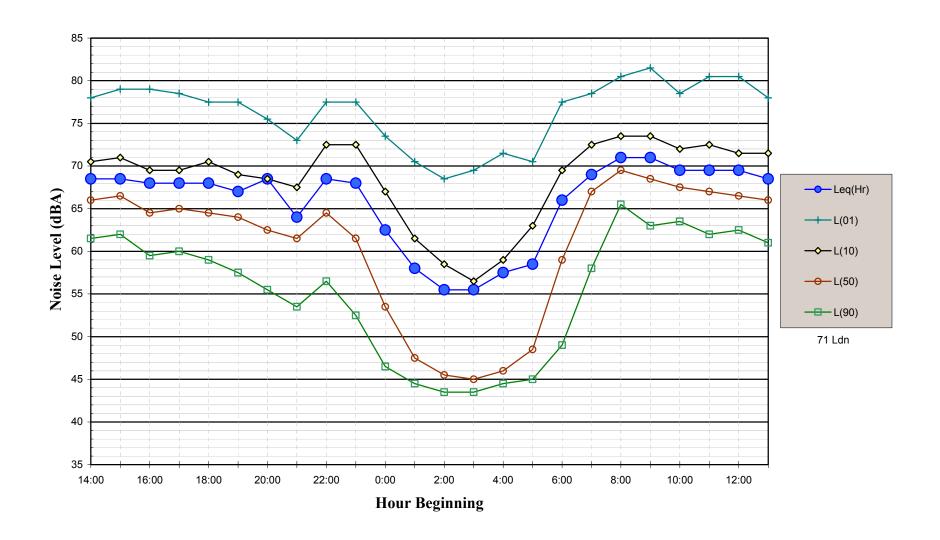
FIGURE G-2   **LT-2: ADJACENT BLOCKS NORTH – INTERSECTION OF SCENIC AVENUE AND RIDGE ROAD, GRADUATE THEOLOGICAL UNION HEWLETT LIBRARY –**
FEBRUARY 26 - 27, 2003
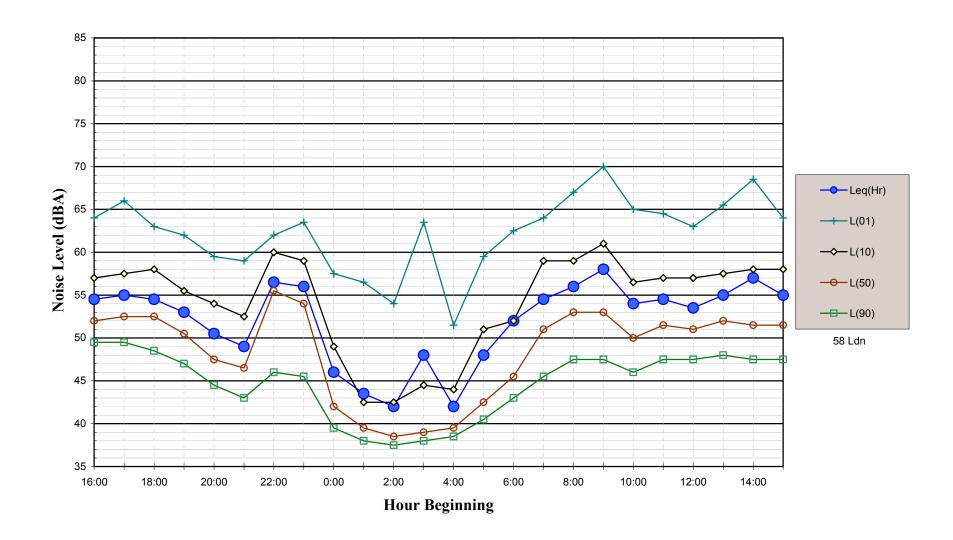
FIGURE G-3   **LT-3: SOUTHSIDE – INTERSECTION OF CHANNING WAY AND DANA STREET ~ 30 FEET FROM THE CENTERLINE OF CHANNING AVENUE, FIRST PRESBYTERIAN CHURCH ACROSS FROM RESIDENCE HALLS UNIT 3 – MARCH 18 - 19, 2003**
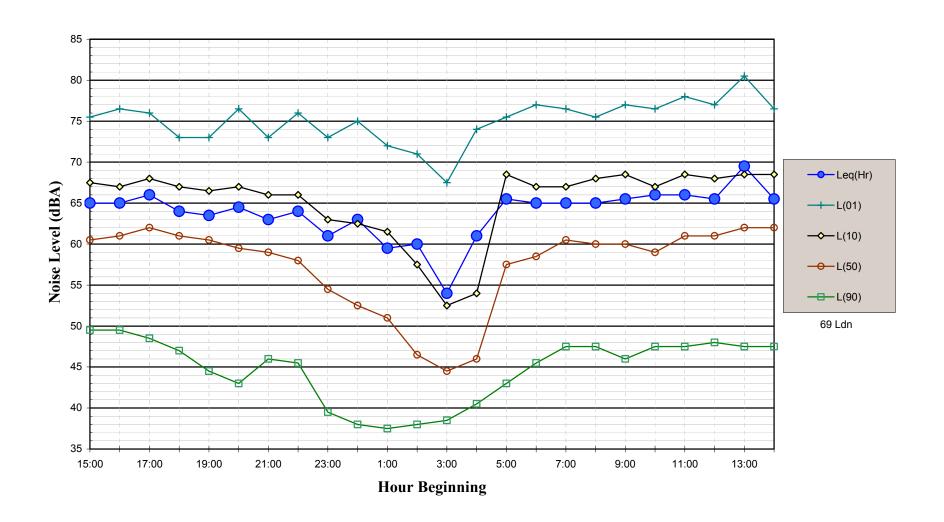
Table LT-1: Adjacent Blocks West - Shattuck Avenue (2050 Delaware)
~ 55 feet from the Centerline of Shattuck Avenue
February 26 - 27, 2003

INTERVAL   REPORT   L   DAVIS   LABORA   ODEL 700   SN   B1439
                                                          2/27/2003   14:01   6:41

Date 26 FEBRUARY Period 01

Date	Time	LVL	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn
26-Feb	13:41:01	69.5	57	88.5	80	71.5	66.5	62.5	8912509.381	
26-Feb	14:00:01	68.5	53	85.5	78	70.5	66	61.5	7079457.844	71.41217363
26-Feb	15:00:00	68.5	54.5	85	79	71	66.5	62	7079457.844	
26-Feb	16:00:00	68	52.5	86.5	79	69.5	64.5	59.5	6309573.445	
26-Feb	17:00:00	68	51.5	85.5	78.5	69.5	65	60	6309573.445	
26-Feb	18:00:00	68	51.5	87.5	77.5	70.5	64.5	59	6309573.445	
26-Feb	19:00:00	67	49.5	87.5	77.5	69	64	57.5	5011872.336	
26-Feb	20:00:00	68.5	48.5	95.5	75.5	68.5	62.5	55.5	7079457.844	
26-Feb	21:00:00	64	48.5	81.5	73	67.5	61.5	53.5	2511886.432	
26-Feb	22:00:00	68.5	49.5	80.5	77.5	72.5	64.5	56.5	70794578.44	
26-Feb	23:00:00	68	47.5	81	77.5	72.5	61.5	52.5	63095734.45	
27-Feb	0:00:00	62.5	44.5	81	73.5	67	53.5	46.5	17782794.1	
27-Feb	1:00:00	58	43	74.5	70.5	61.5	47.5	44.5	6309573.445	
27-Feb	2:00:00	55.5	42.5	74.5	68.5	58.5	45.5	43.5	3548133.892	
27-Feb	3:00:00	55.5	43	79	69.5	56.5	45	43.5	3548133.892	
27-Feb	4:00:00	57.5	43	79	71.5	59	46	44.5	5623413.252	
27-Feb	5:00:00	58.5	43.5	76.5	70.5	63	48.5	45	7079457.844	
27-Feb	6:00:00	66	45.5	85.5	77.5	69.5	59	49	39810717.06	
27-Feb	7:00:00	69	47.5	87	78.5	72.5	67	58	7943282.347	
27-Feb	8:00:00	71	58.5	85.5	80.5	73.5	69.5	65.5	12589254.12	
27-Feb	9:00:00	71	55.5	87.5	81.5	73.5	68.5	63	12589254.12	
27-Feb	10:00:00	69.5	58.5	88	78.5	72	67.5	63.5	8912509.381	
27-Feb	11:00:00	69.5	54	86.5	80.5	72.5	67	62	8912509.381	
27-Feb	12:00:00	69.5	56.5	87.5	80.5	71.5	66.5	62.5	8912509.381	
27-Feb	13:00:00	68.5	50.5	85.5	78	71.5	66	61	7079457.844	
27-Feb	14:00:01	84.5	57	108	99.5	76.5	67.5	62.5	281838293.1	

OVERALL LEQ: 72.1

Table LT-2: Adjacent Blocks North - Intersection of Scenic Avenue and Ridge Road
Graduate Theological Union Hewlett Library
February 26 - 27, 2003

INTERVAL REPORT   L   DAVIS   LABORA   ODEL 700 SN   B1091
                                                        2/27/2003   16:00   0:58

Date 26 FEBRUARY Period 01

Date	Time	LVL	Lmin	Lmax	L01	L10	L50	L90	Energy + Penalty	Ldn
26-Feb	15:05:01	55.5	46	80	67.5	57	52	49	354813.3892	
26-Feb	16:00:01	54.5	47	71	64	57	52	49.5	281838.2931	58.42666001
26-Feb	17:00:00	55	46.5	73	66	57.5	52.5	49.5	316227.766	
26-Feb	18:00:00	54.5	45.5	68.5	63	58	52.5	48.5	281838.2931	
26-Feb	19:00:00	53	43.5	71.5	62	55.5	50.5	47	199526.2315	
26-Feb	20:00:00	50.5	42.5	64.5	59.5	54	47.5	44.5	112201.8454	
26-Feb	21:00:00	49	42	64	59	52.5	46.5	43	79432.82347	
26-Feb	22:00:00	56.5	43.5	64	62	60	55.5	46	4466835.922	
26-Feb	23:00:00	56	42	72.5	63.5	59	54	45.5	3981071.706	
27-Feb	0:00:00	46	38.5	64	57.5	49	42	39.5	398107.1706	
27-Feb	1:00:00	43.5	37	67	56.5	42.5	39.5	38	223872.1139	
27-Feb	2:00:00	42	36.5	59.5	54	42.5	38.5	37.5	158489.3192	
27-Feb	3:00:00	48	37	68.5	63.5	44.5	39	38	630957.3445	
27-Feb	4:00:00	42	37.5	59	51.5	44	39.5	38.5	158489.3192	
27-Feb	5:00:00	48	39.5	72.5	59.5	51	42.5	40.5	630957.3445	
27-Feb	6:00:00	52	40.5	74	62.5	52	45.5	43	1584893.192	
27-Feb	7:00:00	54.5	43	70	64	59	51	45.5	281838.2931	
27-Feb	8:00:00	56	43.5	71	67	59	53	47.5	398107.1706	
27-Feb	9:00:00	58	43	77.5	70	61	53	47.5	630957.3445	
27-Feb	10:00:00	54	43	72	65	56.5	50	46	251188.6432	
27-Feb	11:00:00	54.5	44	73	64.5	57	51.5	47.5	281838.2931	
27-Feb	12:00:00	53.5	44	67	63	57	51	47.5	223872.1139	
27-Feb	13:00:00	55	45	71	65.5	57.5	52	48	316227.766	
27-Feb	14:00:00	57	44.5	80	68.5	58	51.5	47.5	501187.2336	
27-Feb	15:00:00	55	45.5	75.5	64	58	51.5	47.5	316227.766	
27-Feb	16:00:01	53	50	56	56	55	52.5	50.5	199526.2315	

OVERALL LEQ: 53.8

Table LT-3: Southside - Intersection of Channing Avenue and Dana Street
~ 30 feet from the Centerline of Channing Avenue
First Presbyterian Church across from Residence Halls Unit 3
March 18 - 19, 2003

```
INTERVAL  REPORT    L         DAVIS    LABORA   ODEL 700  SN        B0950
DATA FR   OM: 02149       -3                    3/19/2003  17:00     1:45
```

Date 18 MARCH Period 01

Date	Time	LVL	Lmin	Lmax	L01	L10	L50	L64.8	Energy + Penalty	Ldn
18-Mar	14:48:01	64	50.5	18-Mar	14-Mar	12:00:00	61	55	2511886.432	
18-Mar	15:00:01	65	48.5	27-Mar	15-Mar	12:00:00	60.5	56.5	3162277.66	9-Mar
18-Mar	16:00:00	65	49.5	26-Mar	16-Mar	0:00:00	61	56.5	3162277.66	
18-Mar	17:00:00	66	53.5	31-Mar	16-Mar	0:00:00	62	58	3981071.706	
18-Mar	18:00:00	64	49	23-Mar	13-Mar	0:00:00	61	57	2511886.432	
18-Mar	19:00:00	63.5	50.5	20-Mar	13-Mar	12:00:00	60.5	55.5	2238721.139	
18-Mar	20:00:00	64.5	46.5	27-Mar	16-Mar	0:00:00	59.5	53.5	2818382.931	
18-Mar	21:00:00	63	48	22-Mar	13-Mar	0:00:00	59	53	1995262.315	
18-Mar	22:00:00	64	45.5	27-Mar	16-Mar	0:00:00	58	51.5	25118864.32	
18-Mar	23:00:00	61	44.5	25-Mar	13-Mar	0:00:00	54.5	48	12589254.12	
19-Mar	0:00:00	63	43	29-Mar	15-Mar	12:00:00	52.5	45.5	19952623.15	
19-Mar	1:00:00	59.5	43.5	22-Mar	12-Mar	12:00:00	51	45.5	8912509.381	
19-Mar	2:00:00	60	43	28-Mar	11-Mar	12:00:00	46.5	44	10000000	
19-Mar	3:00:00	54	43	16-Mar	7-Mar	12:00:00	44.5	43.5	2511886.432	
19-Mar	4:00:00	61	43	29-Mar	14-Mar	0:00:00	46	44	12589254.12	
19-Mar	5:00:00	65.5	44.5	28-Mar	15-Mar	12:00:00	57.5	49	35481338.92	
19-Mar	6:00:00	65	48	28-Mar	17-Mar	0:00:00	58.5	51	31622776.6	
19-Mar	7:00:00	65	49.5	25-Mar	16-Mar	0:00:00	60.5	54.5	3162277.66	
19-Mar	8:00:00	65	46.5	26-Mar	15-Mar	0:00:00	60	53	3162277.66	
19-Mar	9:00:00	65.5	48	26-Mar	17-Mar	12:00:00	60	53.5	3548133.892	
19-Mar	10:00:00	66	47.5	29-Mar	16-Mar	0:00:00	59	53	3981071.706	
19-Mar	11:00:00	66	48	26-Mar	18-Mar	12:00:00	61	55.5	3981071.706	
19-Mar	12:00:00	65.5	51.5	23-Mar	17-Mar	0:00:00	61	57	3548133.892	
19-Mar	13:00:00	69.5	53.5	4-Apr	20-Mar	12:00:00	62	58	8912509.381	
19-Mar	14:00:00	65.5	51	25-Mar	16-Mar	12:00:00	62	57	3548133.892	
19-Mar	14:59:35	62.5	61	3-Mar	3-Mar	0:00:00	62.5	61	1778279.41	
19-Mar	15:00:01	67	53.5	18-Mar	18-Mar	0:00:00	61.5	55.5	5011872.336	

OVERALL LEQ: 64.6

L A W R E N C E   B E R K E L E Y   N A T I O N A L   L A B O R A T O R Y
N O T I C E   O F   P R E P A R A T I O N
2 0 0 4   L O N G   R A N G E   D E V E L O P M E N T   P L A N

:

Ernest Orlando Lawrence
Berkeley National Laboratory

One Cyclotron Road, MS 90K
Berkeley, California 94720

October 28, 2003

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

**REVISED NOTICE OF PREPARATION
DRAFT ENVIRONMENTAL IMPACT REPORT**

Project Title: LBNL 2004 Long Range Development Plan
Project Location: Lawrence Berkeley National Laboratory
County: Alameda County, California
SCH#:   2000102046

Project Description:
Lawrence Berkeley National Laboratory (LBNL or Berkeley Lab) proposes to prepare and adopt
the 2004 Long Range Development Plan (LRDP). The 2004 LRDP will provide a physical
development framework for implementing Berkeley Lab's mission through the year 2025.

Agency Review and Comments:
In compliance with the State and University of California Guidelines for implementation of the
California Environmental Quality Act (CEQA), this Notice of Preparation is hereby sent to inform
you that the Lawrence Berkeley National Laboratory is preparing a Draft Environmental Impact
Report (EIR) on the 2004 LRDP.

As Lead Agency, we need to know the views of your agency as to the scope and content of the
environmental information that is germane to your agency's statutory responsibilities in
connection with the proposed project. (Anticipated areas of analysis are identified in the attached
Initial Study). Please designate a contact person in your agency and send your response to the
address below.

Environmental Review Process:
The University of California will be the Lead Agency and will prepare an EIR to evaluate the
potential environmental effects of implementing the 2004 LRDP. This will include a programmatic
level of environmental review of Berkeley Lab development through 2025.

The 2004 LRDP EIR will replace the 1987 LRDP EIR (as well as the 1992 Supplemental EIR and 1997 Addendum) when it has been certified and the proposed new LRDP has been approved by The UC Regents. The LRDP EIR will be designed to analyze a series of related actions at Lawrence Berkeley National Laboratory under the 2004 LRDP. It will contain a comprehensive and detailed analysis of environmental impacts of the 2004 LRDP. Subsequent activities within the scope of the 2004 LRDP will be analyzed to determine whether there are any impacts requiring further CEQA documentation or instead whether no documentation in addition to the LRDP EIR is required.

An Initial Study has been prepared pursuant to CEQA to identify the environmental issues that will be addressed in Berkeley Lab's 2004 LRDP EIR. The Initial Study is attached to this Notice of Preparation. Copies of the Initial Study are available for review at the main branch of the Berkeley Public Library, 2090 Kittredge Avenue, Berkeley, and on-line at http://www.lbl.gov/Community/env-rev-docs.html.lbl.gov.

Due to time limits mandated by State law, this NOP will include a 30-day comment period that extends from October 28, 2003 to November 26, 2003. Comments must be received before 5:00 pm on November 26, 2003 to be considered in the preparation of the LRDP EIR. They may be e-mailed to LRDP-EIR@lbl.gov or mailed to:

Jeff Philliber
Environmental Planning Group Coordinator
Lawrence Berkeley National Laboratory
One Cyclotron Road, MS 90K
Berkeley, CA 94720

A public scoping meeting for the 2004 LRDP and EIR will be held from 7:00 PM to 9:00 PM on November 17, 2003 at the North Berkeley Senior Center, 1901 Hearst Avenue, Berkeley.

Sincerely,

Laura Chen, Chief
LBNL Facilities Planning

Enclosure: Initial Study Checklist

CC: <u>State Agencies</u>

State Clearinghouse
CA Air Resources Board, Dr. Alan C. Lloyd
CA Department of Fish and Game, Robert C. Hight, Director
CA Department of Health Services, Mr. Edgar Bailey, Chief, Radiological Health Branch, et. al.
CA Department of Water Resources, David Kennedy, Director
CA Environmental Protection Agency, Winston Hickox, Secretary, et. al.
CA EPA, Department of Toxic Substances Control, Sal Ciriello et. al.,
CA Regional Water Quality Control Board, Mr. Lawrence Kolb, Executive, et. al.
CA State Resources Agency, Ms. Mary D. Nichols, Secretary
CA State Water Resources Control Board, Ms. Heidi Temko, et. al.
CalTrans, Gary Adams, Chief, et. al.

Federal Agencies
U.S. Environmental Protection Agency, Region 9, Mr. Michael Bandrowski, et. al.
U.S. Fish and Wildlife Service, Sacramento Field Office, Wayne White, Supervisor,
U.S. Department of Energy, Berkeley Site Office, Mr. Richard Nolan, et. al.
U.S. Department of Energy, NEPA Compliance Officer, Janet M. Neville
U.S. Department of Energy, Oakland Office, Mr. Roger Little, et. al.

Regional/County Agencies
Alameda County, Supervisor District 5, Keith Carson
Alameda County LAFCO, Lon Ann Texeira, Executive Officer
Alameda County, Susan Muranishi, County Administrator
Alameda County, Health Care Agency, Public Health Officer, Arthur Chen et. al.
Alameda County, Clerk, Crystal Hishida
Alameda County Planning Department, James Sorenson, Director, et. al.
Metropolitan Transportation Commission Steve Heminger, Executive Director
Association of Bay Area Governments, Eugene Leong, et. al.
Bay Area Air Quality Management District, Brian Bateman, et. al.
Contra Costa County Department of Health Services, Andy Parsons
East Bay Municipal Utilities District, Dennis Diemer, General Manager, et. al.
East Bay Regional Park District, Pat O'Brien, General Manager, et. al.
Regional Water Quality Control Board, San Francisco Division, Keith Lichten, et. al.

City of Berkeley
Berkeley City Clerk, Ms. Sherry M. Kelly
Berkeley City Manager's Office, Mr. Phil Kamlarz, et. al.
City of Berkeley, City Attorney's Office, Manuela Albuquerque
City of Berkeley, Mayor Tom Bates, et. al.
City of Berkeley, Council Members Breland, Hawley, Maio, Olds, Shirek, Spring, Worthington, Wozniak
City of Berkeley, Department of Planning, Dan Marks, et. al.
City of Berkeley, Toxics Management Division, Dr. Nabil Al-Hadithy
City of Berkeley, Energy Officer, Neal DeSnoo
City of Berkeley, Peace & Justice Commission Secretary, Hector Manual
City of Berkeley, Parks & Waterfront Commission Secretary, Jay Kelekian
City of Berkeley, Solid Waste Management Commission Secretary, Tania Levy
City of Berkeley, Police Chief Roy Meissner
City of Berkeley, Fire Department, Reg Garcia, Chief, et. al.
City of Berkeley, Peter Hilliard, Transportation Manager

City of Oakland
City of Oakland Mayor Jerry Brown
City of Oakland, District 1, Jane Brunner, Councilmember
City of Oakland, City Attorney John Russo
City of Oakland, Planning and Zoning Division, Leslie Gould, Director
Oakland City Clerk's Office, Ceda Floyd
City of Oakland, Deborah Edgerly, Interim City Manager
City of Oakland, Fire Department, Gerald Simon, Chief, et. al.

City of Albany
City of Albany City Clerk Jacqueline Bucholz
City of Albany Administrator, Beth Pollard

Kensington
Kensington Fire District, Paul Wilson

University of California Office of the President (UCOP)
UCOP, Budget and University Relations, Bruce Darling, Vice-President
UCOP, Laboratory Administration, Howard Hatayama, Sr. VP
UCOP Office of General Counsel, Alan Waltner
UCOP Office of Planning, Design, & Construction, John Zimmermann, et. al.
UCOP Facilities Administration, Michael Bocchichio, Assistant Vice President

UC Berkeley
UC Berkeley, Chancellor Robert Berdahl
UC Berkeley, Exec. Vice Chancellor, Paul Gray
UC Berkeley, Vice Chancellor for Research, Beth Burnside
UC Berkeley, Vice Chancellor Business and Administrative Services, Horace Mitchell, et. al.
UC Berkeley, Physical and Environmental Planning, Tom Lollini, Director, et. al.
UC Berkeley, Chancellor's Adv. Committee on Strawberry Creek, G. Mathias Kondolf
UC Berkeley, EH&S Division, Mark Frieberg, et. al.
UC Berkeley, Office of Radiation Safety, Paul Lavely, Director, et. al.
UC Berkeley, Community Relations, Irene Hegarty, Director
UC Berkeley, Lawrence Hall of Science, Elizabeth Stage, Director et. al.
UC Berkeley, Botanical Garden, Ellen Sims, Director, et. al.
UC Berkeley, Police Chief, Victoria Harrison
UC Berkeley, Campus Landscape Architect, James Horner
UC Berkeley, Emergency Services Manager, Tom Klatt

Organizations
Berkeley Association of Realtors, Donald Clark, Executive Director
Berkeley Chamber of Commerce, Rachel Rupert et. al.
Campus Parnassus Neighborhood Association, Eric Arens
Committee to Minimize Toxic Waste, Pam Sihvola, Co-Chair, et. al.
Community Environmental Advisory Commission, Sara MacKusick
Council of Neighborhood Associations, Marie Bowman, President
Euclid-LeConte Neighbors, Jim Sharp et. al.
League of Women Voters, Nancy Bickel, President, et. al.
Nyingma Institute, Abby Blum
Oakland Metropolitan Chamber of Commerce, Joseph Haraburda
Panoramic Neighborhood Association, Janice Thomas, President
Urban Creeks Council, Carol Schemmerling
Friends of Strawberry Creek, Janet Byron

Individuals and Neighbors
(Various)

Ernest Orlando Lawrence
Berkeley National Laboratory

One Cyclotron Road, MS 90K
Berkeley, California 94720

October 28, 2003

INITIAL STUDY
2004 LONG RANGE DEVELOPMENT PLAN
LAWRENCE BERKELEY NATIONAL LABORATORY

I.   PROJECT INFORMATION

   Project Title: 2004 Long Range Development Plan

   Lead Agency: University of California

   Contact Person: Jeff Philliber; (510) 486-5257

   Project Location: One Cyclotron Road, Berkeley, California 94720

   State Clearinghouse #:   2000102046

II. PROJECT DESCRIPTION

   See Below.

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

   The environmental factors checked below may be potentially affected by this project and will be carried forward for full analysis in the LRDP EIR:

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

IV.   DETERMINATION: (To be completed by the Lead Agency)

On the basis of the initial evaluation that follows:

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

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

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

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

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental document is required. FINDINGS consistent with this determination will be prepared.

Signature   Date

Laura Chen

Printed Name   Chief, LBNL Facilities Planning

LBNL 2004 LRDP
PROJECT DESCRIPTION

Introduction

Lawrence Berkeley National Laboratory (LBNL or Berkeley Lab) is a multi-program national research facility operated by the University of California (UC) for the Department of Energy (DOE)'s missions in fundamental science, energy resources and environmental quality. LBNL's programs advance four distinct goals for DOE and the nation:

- To perform leading multidisciplinary research in the computing sciences, physical sciences, energy sciences, biosciences, and general sciences in a manner that ensures employee and public safety and protection of the environment.

- To develop and operate unique national experimental facilities for qualified investigators.

- To educate and train future generations of scientists and engineers to promote national science and education.

- To transfer knowledge and technological innovations and to foster productive relationships among the Lab's research programs, universities, and industry in order to promote national economic competitiveness.

Classified research is not conducted at LBNL.

Background

University of California campuses, including LBNL, are required to maintain and periodically update Long Range Development Plans (LRDPs). An LRDP is a planning document that establishes a general framework and direction for the physical development of an institution over a span of several years. The University of California further mandates that any new LRDP be accompanied by an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA). An EIR provides a comprehensive review and analysis of a proposed project and of its potential effects on the environment. An EIR analysis is presented for review and comment to the public, to relevant government agencies, and to the Lead Agency (in this case, UC) decision-makers. Any new LBNL LRDP and EIR must be approved by The Regents of the University of California before the EIR can be adopted and the LRDP can be implemented.

LBNL's existing LRDP and EIR were approved in 1987. The EIR was later updated by a Supplemental EIR in 1992 and an Addendum in 1997. Sufficient time has passed that a renewed statement of planning vision is appropriate for Berkeley Lab as it works to address the national scientific challenges and research opportunities at the beginning of this new century.

LBNL had begun the long range planning process with a previous LRDP EIR Notice of Preparation in the fall of 2000. Because the schedule for completion and circulation of the LRDP and EIR was delayed, this revised Notice of Preparation has been issued. With this revised Notice of Preparation, the LRDP and CEQA process recommences. Berkeley Lab expects to complete and circulate the Draft LRDP and Draft EIR for public review in Spring 2004. Berkeley Lab plans to submit the proposed Final LRDP and EIR documents for The UC Regents' consideration during Fall 2004.

Setting

The main LBNL site straddles the border between the cities of Berkeley and Oakland in Alameda County adjacent to the UC Berkeley campus (see Figures 1 and 2). The site is situated on the ridges and in the draws of Blackberry and Strawberry Canyons in the East Bay Hills. To the west are UC Berkeley student and general residential neighborhoods; to the north are single-family residential neighborhoods, the Lawrence Hall of Science, and other rurally set recreational and cultural facilities and parking uses; to the east and southeast are University-owned rural lands including designated ecological study area and botanical gardens; and to the south and southwest are the University of California, Berkeley, recreational facilities, and single-family residential neighborhoods (see Figure 3).

The approximately 200-acre main LBNL site (or "Hill site," see figure 2) includes approximately 1.76 million gross square feet (gsf) of building space consisting mainly of office, laboratory, shop, and storage areas. Additional development includes roads, parking lots, utilities, and infrastructure. Approximately 25 percent of the site is developed (impermeable surface area) while the remaining approximately 75 percent is generally permeable and/or undeveloped, although historically agriculturally-used or otherwise managed areas. The latter areas are hosts to a variety of mostly non-native grasses, brush, and woodlands. LBNL's undeveloped areas are subject to on-going vegetation management for fire control purposes.

LBNL occupies approximately 400,000 gsf of office, laboratory, and storage space off of the LBNL Hill site. This includes approximately 100,000 gsf on UC-owned land on the UC Berkeley Campus, and approximately 295,000 gsf of commercial/industrial lease space primarily in the

cities of Berkeley, Oakland, Walnut Creek, and Washington, D.C. The amount of off-site space occupied and the location of this space changes as needs and market conditions change.

The LBNL Hill site includes three vehicular entry gates and generates several thousand one-way (access and egress) vehicle trips on a typical workday. The site currently contains approximately 2,200 employee parking spaces, and the current objective for Berkeley Lab's parking-to-employee ratio is 1.7 employees for every parking space for the Lab's current adjusted daily population of about 4,300. The Lab offers free employee and guest shuttle service throughout the workday, both on- and off-site, and maintains incentives for carpooling and alternative forms of transportation.

LBNL's landscape management areas include stands of eucalyptus, bay, oak, redwoods, and Monterey pine; scrub and brush; and grasslands. No rare, endangered, threatened, or otherwise listed plant or animal species have been sighted at LBNL. The Berkeley Lab site contains several mostly seasonal and intermittent waterways and drainages and is part of the Strawberry Creek watershed. No jurisdictional wetlands or blue-line streams exist on the site. An on-going vegetation management program for wildland fire control consists of periodic tree-thinning and pruning and regular brush and grass maintenance activities.

The Cooper's hawk, a California species of concern, and the Red-tailed hawk, which is protected under California Fish and Game Code Section 3505.5, have been observed within the Lab environs. In addition, in 2000, the US Fish and Wildlife Service (USFWS) designated a large portion of Alameda and Contra Costa Counties as habitat for the Alameda whipsnake—a species previously listed as "threatened." This critical habitat listing included areas within the LBNL Hill site. No Alameda whipsnake has been reported at the LBNL site, and a 1996 survey conducted by a whipsnake expert reported that only a small portion of the LBNL site (less than five acres) actually contains any viable or colonizable Alameda whipsnake habitat. The USFWS critical habitat listing for the Alameda whipsnake was vacated by a Federal district court in 2003.

While some LBNL buildings are over fifty years old, virtually all of these have been substantially modified over the years. LBNL is conducting a sitewide review of historic resources in coordination with the Department of Energy and the State Historic Preservation Office. Based on archaeological surveys of the Hill site, as well as on decades of construction-related excavation, no archaeological or Native American sites are thought to exist on the LBNL site.

1987 LRDP and EIR

At present, Berkeley Lab's on- and off-hill site facilities are host to an average daily population of approximately 4,300 staff and guests. Under the current, approved LRDP and LRDP EIR, as amended, Berkeley Lab may grow by approximately 450 staff and guests above current levels to a total of 4,750 staff and guests, and may develop or occupy an additional 238,000 gsf on site to a total of 2 million gsf (see Table I). In addition, the 1987 LRDP and EIR, as amended, project that LBNL off-hill (non-UC-owned land) space use will be 100,000 gsf by an unspecified date within the 21st Century ("20XX").

2004 LRDP

Project Description

The project under consideration in this EIR will be LBNL's proposed new LRDP. The LRDP will be a planning document that will address continuing and future uses and activities at Berkeley Lab. The LRDP planning period will extend through 2025, although the actual pace and nature of projected development will depend on a number of factors that cannot all be predicted at this time; these include future funding levels and the future direction of national research. For the purposes of environmental analysis, an approximately twenty-year timeframe will be used.

While the LRDP planning process is not complete, LBNL has developed some general parameters for the Plan. These parameters, discussed below, are the result of preliminary planning and may be refined or adjusted as a result of the on-going planning process.

The objectives of this proposed LRDP reflect the evolution of the Lab, its mission, and the climate of scientific research since the issuance of the 1987 LRDP. The anticipated primary LRDP objectives are:

- Provide research and support facilities to accommodate research program and associated population growth.

- Secure and sustain investment in research facilities.

- Improve overall operational and scientific efficiencies.

- Strengthen the core site plan concept of multiple, consolidated functional areas.

- Improve research and support operations through proper siting and consolidation of functions, including the relocation of off-site and UCB research activities to the main Hill site.

- Develop facilities that foster innovation and collaboration.

- Protect the environment through exemplary sustainable design and operational practices.

- Plan for site amenities and constraints.

- Provide a setting that attracts and retains leading research talent in a safe, healthful, and attractive work environment.

- Provide a flexible land use policy that accommodates the rapidly changing nature of scientific research.

LRDP Scope

The 2004 LRDP will guide the physical development of Berkeley Lab to achieve the best possible balance among the Lab's mission; staff, user, and visitor needs for state of the art research and support facilities and services; the environmental character of the site; and a harmonious integration with the surrounding community. The LRDP will not be per se an implementation plan; rather, it will be a guide to implementation. Adoption of the LRDP will not constitute a commitment to any specific development projects, construction schedules, or funding priorities. Specifically, this LRDP will:

- Summarize the Laboratory's setting, planning processes, planning concepts and design objectives.

- Identify population growth and space needs projections to the twenty-year horizon year.

- Define the physical context for facilities development on the main Hill site.

- Indicate redevelopment needs for existing buildings and utility systems.

- Summarize site amenities and constraints to protect the environment and natural setting.

- Provide a land use plan and accompanying design principles and themes as a guide for the location and qualitative aspects of new development.

Population Growth Projections

Over the next twenty years, the "adjusted daily population" (ADP) at the Hill site is expected to grow from the current 4,300 to 5,500. The ADP counts both staff and guests and is adjusted to account for the normal fluctuations in guest attendance. This average growth rate of approximately 1.1% per year would be less than LBNL's annual population growth rate of about 1.3% per year since adoption of the 1987 LRDP. This forecasted population would represent an

increase of approximately 28% over the current LBNL population and approximately 16% over the 1987 LRDP population projection of 4,750.[1]

Space Needs Projections

Currently, LBNL occupies 2,180,000 gsf, including a combined total of about 1,760,000 gsf at the main Hill site, about 99,000 gsf at the UCB campus, and approximately 295,000 gsf of leased space distributed over multiple sites, for a combined total of 2,155,501 gsf. Implementation of the 2004 LRDP would increase the Lab's main Hill site total building area to approximately 2,560,000 gsf.[1]

Table 1

	Current Level	**Current Projection (1987 LRDP/EIR)**	**Projected Future (2025) Level**
Population (ADP)	4,300	4,750	5,500
Space[1]			
On-Hill space	1.76 M	2.00 M	2.56 M
Off-Hill space at UCB[2]	0.10 M	0.30 M	0.10 M

[1] – in Millions square feet
[2] – Does not include off-site lease space, which will change as needs and/or market conditions allow.

Off-Hill functions may continue to operate at their current locations or at the other sites as conditions warrant. LBNL does not expect to increase space occupied on the UC Berkeley campus park, but the mix of office and laboratory space may change over time. It is anticipated that LBNL's special status space in Calvin and Donner laboratory buildings on the UC Berkeley campus will continue in these or other negotiated buildings on the UC Berkeley campus. LBNL's off-Hill Commercial lease space will fluxuate as needs and market conditions allow.

Land Use

The Land Use Plan will identify general zones of development intensity rather than areas of specific use types. The three development zones that will comprise the plan are expected to be:

- **Facilities Development Area –** research and support activities. Would encompass primarily the already developed central portion of the Lab. New development of

[1]   Revisions to text were made to correct overstatements in NOP, per errata sheet issued to the State Clearinghouse on October 31, 2003.

laboratory, office, and support structures would be allowed throughout this zone. Final building locations and massing would not be dictated by the land use plan but would be the result of a comprehensive planning process. The LRDP would promote development on infill and existing building sites and would look to consolidating research activities.

- **Vegetation Management Areas –** managed landscape, wildland fire and natural areas. Would be located entirely along the perimeter of the LBNL site and would provide an open space buffer to neighboring land uses. Vegetation in these areas would continue to be managed to reduce wildland fire risks. Environmental monitoring structures and access roadways would be allowed in these areas.

- **Special Habitat Protection Areas –** no regular vegetation management or development is anticipated. Would provide for protection of identified special status species habitats and riparian zones.

Since the 1987 LRDP, approximately 66 acres of Regents'-owned land formerly managed by UC Berkeley have been added to LBNL's management area. These acres are currently managed under existing land use designations provided under the current UC Berkeley LRDP until LBNL's new LRDP is adopted by The Regents. At such time, these acres will be assigned new land use designations by the Berkeley Lab LRDP. This land currently includes "Ecological Study Area" zone and "Natural" area designations under the UC Berkeley LRDP, and it is actively managed by LBNL for vegetation and fire management purposes. The lands currently designated as Ecological Study Area zones under the 1990 UC Berkeley LRDP are anticipated to be designated "managed areas" under the new Berkeley Lab LRDP.

Proposed Major Planning Policies

Based upon the Lab's mission, population growth projections, and space needs forecast, policies are being formulated to serve as a guide to the continuing development of the LBNL main site. These draft policies include the following:

Facilities
- Develop flexible facilities that meet changing needs of research programs
- Design buildings to work with hillside topography
- Design buildings as leading examples of sustainable design principles
- Develop and maintain flexible and accessible utility infrastructure

Environmental Character
- Establish the built form as a strong sense of place to facilitate interactive work and social life that will help to attract and retain top researchers
- Commit to integrate natural and man-made environments

- Optimize the potential of open space, views, and landscape as valuable, distinguishing amenities

- Continue vegetation management to minimize wildland fire risk

Growth & Development

- Accommodate changing space and support needs of scientific research

- Accommodate program population and space growth

- Balance approach to new development

- Replace old low density with new space efficient facilities

- Promote sustainable development

- Promote opportunities for third-party development

Land Use

- Co-locate interdependent research programs in clusters

- Promote infill development sites reinforcing the cluster concept

- Assign land use in accordance with sustainable guidelines

- Site development adjacent to existing development and utilities

Circulation and Transportation

- Promote alternative forms of transportation

- Provide parking to support a campus like setting and increased population

- When possible, segregate service and employee/visitor traffic

Plan Concept: Hill Town Research Clusters

The 2004 LRDP will advance the concept of development in research clusters defined by the hillside topography, natural features, and the character of the built environment. These clusters will be known as individual "hill towns" with their own unique character and themes. The Lab campus as a whole will maintain a cohesive sense of place primarily from the unifying force of the natural setting. Further development of common elements such as pedestrian walkways, site structures, landscaping and signage will further bind the unique hill town settings into a unified whole.

These hill towns provide a place to concentrate research activities either by research Division or by project into "research clusters." The hill town analogy provides a framework to guide the site planning strategies, development principles, and design themes unique to each hill town. Further, as hill towns, by necessity, tend to concentrate activities and space, these development

principles and themes reinforce a primary LRDP objective to provide higher density facilities that foster opportunities for collaboration.

Construction Program

The 2004 LRDP will envision project construction as a series of activities that takes place sequentially and, at times, simultaneously at the Lab site. Consequently, the 2004 LRDP EIR will analyze construction as an on-going activity based upon expected annual averages as opposed to as a series of discrete, temporary, and unrelated actions that are deferred to future, segregated analyses.

Environmental Impact Report

The 2004 LRDP EIR will replace the 1987 LRDP EIR (as well as the 1992 Supplemental EIR and 1997 Addendum) when it has been certified and the proposed new LRDP has been approved by The UC Regents. The 2004 LRDP EIR will be designed to analyze a series of related actions at Lawrence Berkeley National Laboratory under the 2004 LRDP. It will contain a comprehensive and detailed analysis of environmental impacts of the 2004 LRDP. Subsequent activities within the scope of the 2004 LRDP will be analyzed to determine whether there are any impacts requiring further CEQA documentation or instead whether no documentation in addition to the LRDP EIR is required.

The EIR analyses of potential LRDP effects on environmental resources shall include the following areas: Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology, Seismicity, and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Noise; Population and Housing; Public Services; Recreation; Transportation; and, Utilities and Service Systems. The EIR will include analysis of other considerations required by CEQA.

The LRDP EIR will also consider the combined effects of the proposed LRDP program in concert with past, present, and probable future projects producing related or cumulative impacts.   Among these are LBNL's on-going activities, UC Berkeley's projected new Long Range Development Plan, and the City of Berkeley's recently-approved General Plan update.

<u>Alternatives</u>

The LRDP EIR will include an examination of alternatives to the project, including the "no project" alternative required by CEQA. While the final list of alternatives will be developed in conjunction with the environmental analyses, likely alternatives to be included are:

- **Reduced On-Site Population Growth:** Under this alternative, space growth would be similar to that of the proposed project, but population growth would be limited.

- **Reduced On-site Space Growth:** Under this alternative, population growth would be similar to that of the proposed project, but space growth would be limited. Staff compression and/or off-site leases of space would be emphasized under this alternative.

- **Reduced or No New On-site parking growth**: Under this alternative, growth of population and space would continue as projected, but fewer or no new parking spaces would be provided. Alternative modes of transportation would be emphasized to a greater degree under this alternative than under the proposed LRDP.

- **Satellite or Second Campus Development Off-site:** Under this alternative, LBNL would concentrate new facilities and population growth in an off-site area such as in an industrial park.

- **No Project :** Under this alternative, LBNL would not develop beyond the parameters described in the 1987 LRDP.

Cortese List

As required by Public Resources Code Section 21092.6, information regarding LBNL locations on the CAL/EPA Hazardous Waste and Substances Sites List, or "Cortese List," are provided at the following URL: http://www.lbl.gov/Community/env-rev-docs.html

Potential Effects

The following is a preliminary assessment of potential environmental impacts that may be analyzed in the LRDP EIR. This assessment will be used as part of the information considered in determining the scope of environmental issues to be evaluated in preparing the EIR.[1] The EIR will consider all areas below. Topic areas that are expected to be impacted by the proposed project will be fully analyzed. Topic areas not expected to be impacted will be addressed briefly or in depth as appropriate.

	Will be Analyzed in EIR	**No Additional Analysis Required**
1. AESTHETICS -- Would the project:		
a) Have a substantial adverse effect on a scenic vista?	■	☐
Project-related development on-site may be noticeable from numerous off-site viewpoints, including University Avenue in Berkeley, the Campanile on the UC Berkeley Campus, the Lawrence Hall of Science, and segments of Grizzly Peak Boulevard. Development would likely include the addition of new visual elements, such as buildings, and by the removal of natural or screening elements, like key screening trees. One likely measure of effect from viewpoints downhill would be whether such visual changes would substantially alter the existing visual character of the LBNL portion of the Berkeley hills, which are characterized by a mix of buildings surrounded by trees, foliage, and natural-appearing topography. A measure of effect from viewpoints uphill would be whether such visual changes would block or substantially detract from panoramic, long-range views of the San Francisco Bay and distant skyline. The LRDP likely would include LBNL aesthetic design guidelines to be incorporated into any development projects.		
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	■
No LBNL on-site resources are within or in the vicinity of a state scenic highway. Regional access to the LBNL hill site is provided by Interstate Highways 80 and 580, and State Routes 24 and 13. None of these are designated or presently eligible as scenic routes. Therefore, no impact would occur to a state scenic highway and additional analysis is not required.		
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	■	☐
LRDP-related on-site development would likely occur on both currently developed and undeveloped areas. Over the planning period, the project could introduce new buildings and structures to the site, remove existing buildings, alter the terrain and landscape, and remove and/or add key screening trees. It could change existing land uses and intensify development in some areas. Due to distance, elevation, and intervening terrain and vegetation, new development would not be expected to appear highly visible from most off-site viewpoints. One likely measure of effect from viewpoints downhill would be whether such visual changes would substantially alter the existing visual character of the LBNL portion of the Berkeley hills, which are characterized by a mix of buildings surrounded by trees, foliage, and natural-appearing topography. LRDP would be expected to include LBNL aesthetic design guidelines to be incorporated into any development projects.		

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[1]   Brief explanations are provided in shaded boxes. These explanations represent a best estimate based on the current preliminary understanding of the proposed LRDP and its likely effects.

	Will be Analyzed in EIR	No Additional Analysis Required
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	■	☐
With the potential inclusion of new buildings, intensification or change of land uses, and removal of screening trees, LRDP-related on-site development could create new sources of light and glare visible from off-site viewpoints. The LRDP would be expected to include LBNL aesthetic design guidelines to be incorporated into any development projects.		
2. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:		
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	■
No active agriculturally-used lands occur on the LBNL site.		
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	■
No active agriculturally-used lands occur on the LBNL site.		
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	■
No active agriculturally-used lands occur on the LBNL site.		
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?	■	☐

	Will be Analyzed in EIR	**No Additional Analysis Required**
The LBNL site is located in the Bay Area Air Quality Management District (BAAQMD), an area that is currently designated a non-attainment zone for PM_{10} (particulate matter with a nominal diameter of 10 microns or less) and ozone levels. LRDP-related increases in LBNL staff, laboratory space, equipment, and construction activities would be likely to add incrementally to regional ambient air pollutant emissions, including short- and long-term emissions of criteria air pollutants from mobile and stationary sources, including PM_{10} and ozone. This would not advance the goals of the relevant air quality implementation plan for PM_{10} and ozone, although LRDP-related emissions increases would likely be very minor on a regional level. Standard emission control and reduction measures, such as dust control for excavation, use of alternative fuel vehicles on-site, free shuttle service to public transportation, filtration on exhaust systems, etc., are likely to be identified in the LRDP where appropriate.		
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	■	☐
The LRDP EIR will examine the potential for vehicle and stationary source emissions under the project to violate state and federal air quality standards or contribute to existing air quality violations. The potential for mobile source, construction and operational emissions associated with 2004 LRDP implementation to influence air quality would be examined. The analysis will include examination of criteria pollutants, toxic air contaminants, and airborne radionuclides that might potentially result from project implementation.		
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)?	■	☐
The BAAQMD is designated as a non-attainment area for ozone and PM_{10} standards, so any increased LBNL contribution of these emissions to the region would likely constitute an adverse cumulative impact. The LRDP EIR will examine the cumulative projection of total emissions through 2025 — including those of the proposed project, the UC Berkeley 2020 LRDP, and the City of Berkeley General Plan — to determine whether increases in non-attainment criteria pollutants would be cumulatively considerable.		
d) Expose sensitive receptors to substantial pollutant concentrations?	■	☐
The LRDP EIR will evaluate whether construction and development activities under the 2004 LRDP would expose sensitive receptors, including nearby schools, to substantial pollutant concentrations.		
e) Create objectionable odors affecting a substantial number of people?	■	☐

	Will be Analyzed in EIR	**No Additional Analysis Required**
Ongoing activities from the proposed project are not expected to create nuisance or objectionable odors affecting substantial numbers of people, particularly people off-site. Actions that might create objectionable odors include asphalt-laying during construction activities. Such odors would be temporary and likely noticeable to a small number of off-site people, and then only under limited meteorological conditions. The prevailing wind directions measured on site typically do not blow in the direction of nearby populated areas during normal LBNL operating hours. Nevertheless, the LRDP EIR will examine the potential for objectionable odors resulting from implementation of the 2004 LRDP.		
f) Expose people to substantial levels of toxic air contaminants (TACs), such that the exposure could cause an incremental human cancer risk greater than 10 in one million or exceed a hazard index of one for the maximally exposed individual?	■	☐
Development under the 2004 LRDP could add research facilities or expand existing campus uses that are potential sources of toxic air contaminants (TACs). The 2004 LRDP EIR will include estimates for emissions from development under the 2004 LRDP. If the 2004 LRDP would result in an excess cancer risk greater than 10 in one million or exceed a hazard index of one, a significant impact would be assumed to result and be addressed in the EIR. Calculated cancer risks assume a continuous exposure time of 70 years, which provides a conservative analysis because most exposures are of much shorter duration. The hazard index assumes a one-hour exposure to maximum hourly emissions from all LBNL site sources, which provides a conservative analysis because maximum hourly emissions from all sources are not expected to simultaneously occur within one hour.		
4. BIOLOGICAL RESOURCES – Would the project:		
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	■	☐
In 2000, the US Fish and Wildlife Service (USFWS) designated a substantial portion of the eastern LBNL site as critical habitat for the "threatened" Alameda whipsnake. There have never been reported sitings of the Alameda whipsnake species at LBNL, and most of the habitat so designated by the USFWS had been earlier reported as not "colonizable" in a sitewide survey prepared by a leading whipsnake expert for LBNL (McGinnis, 1996). In 2003, a Federal district court vacated the 2000 USFWS critical habitat listing for the Alameda whipsnake. Nevertheless, LBNL continues to operate with a heightened degree of sensitivity towards potential whipsnake presence on all undeveloped areas of its site. Similarly, LBNL recognizes that habitat for or members of various special status birds, bats, reptiles, amphibians, and other species of concern may exist in the area and must be accounted for in Berkeley Lab's planning. In addition, Cooper's hawk and Red-tailed hawk, both special status species, have been observed at LBNL. The 2004 LRDP EIR will examine the potential for development under the LRDP to adversely affect candidate, sensitive, or special status species or their habitat.		

	Will 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?	■	☐
LBNL contains several drainages and a wide range of both native and non-native plant species on-site. The 2004 LRDP EIR will include a sitewide survey to identify any riparian or sensitive natural communities on the LBNL hill site. Any such areas will be considered in the analysis of LRDP implementation.		
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?	■	☐
The LRDP EIR will include a sitewide survey to identify any jurisdictional wetlands as defined under Section 404 of the Clean Water Act. Although jurisdictional waters of the United States exist on the Berkeley Lab site, no known federally protected wetlands are thought to exist on-site.		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	■	☐
The LBNL site is not known to serve as a migratory corridor or nursery site to any native resident or migratory species. Site surveys will be conducted to confirm this.		
e) Conflict with any local applicable policies protecting biological resources?	■	☐
The LRDP EIR will evaluate the consistency of the 2004 LRDP with federal and state plans, policies, laws and regulations, such as the Migratory Bird Treaty Act, that are relevant to potentially occurring biological resources. Local ordinances do not apply to Lab projects, because the University is a state agency exempted from local controls in accordance with the state constitution.		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	■	☐
The LBNL site is not known to be subject to or designated for any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. The LRDP EIR will investigate and confirm this.		
5. CULTURAL RESOURCES -- Would the project:		

	Will be Analyzed in EIR	No Additional Analysis Required
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	■	☐
The LRDP likely would encourage reuse or redevelopment of functionally obsolete buildings when opportunities for new development arise. Several LBNL buildings are or are approaching 50 years of age and have been associated with LBNL's scientific work. A historic survey is being conducted to assist in determining which structures at Berkeley Lab may be historical resources as defined in CEQA Section 15064.5, and how many among them might be eligible for the National Register of Historic Places pursuant to the National Historic Preservation Act. The results of this survey, as available, will be included in the EIR analysis.		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	■	☐
There are no known archaeological resources on the LBNL site. No archaeological artifacts have been discovered during Lab development and excavation, and archaeological field surveys of the site have uncovered no evidence of prehistoric inhabitation or the presence of archaeological resources. Nevertheless, potential for discovery of unexpected archaeological resources during project development and excavation under the 2004 LRDP program will be examined in the LRDP EIR.		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■
The LBNL site does not contain any known unique paleontological resources or unique geologic features. During the course of development at Berkeley Lab, extensive excavation for buildings and infrastructure have not revealed the presence of unique paleontological or geologic resources. No impact would occur, and no additional analysis is required.		
d) Disturb any human remains, including those interred outside of formal cemeteries?	■	☐
See response to 5b, above. There is no known evidence of prehistoric habitation of the LBNL site, nor any indication that the site has been used for burial purposes either in the recent or distant past. The LRDP EIR will identify actions to be taken to mitigate any impacts that might occur in the unlikely event that human remains were disturbed by implementation of the 2004 LRDP.		
6. GEOLOGY AND SOILS -- Would the project:		
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:		

	Will be Analyzed in EIR	No Additional Analysis Required
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	■	☐
The LBNL site is near the Hayward Fault, and some portions of Berkeley Lab fall within the Alquist-Priolo Earthquake Fault Zone. LRDP-related increases in on-site personnel and building space would create additional exposure to earthquake risk. LBNL observes all applicable earthquake and safety codes in its construction and has evaluated and rated all structures in accordance with the University Seismic Safety Policy. The LRDP EIR shall examine the relationships between LBNL future development and known faults, and will analyze potential risk due to seismic shaking, ground failure, and landslides.		
ii) Strong seismic ground shaking?	■	☐
See response to 6a-i, above. The LRDP EIR will analyze the potential increased seismic shaking-related risk from increased population and built space on the LBNL site due to implementation of the 2004 LRDP.		
iii) Seismic-related ground failure, including liquefaction?	■	☐
See response to 6a-i, above. The LRDP EIR will analyze the potential increased ground failure-related risk from increased population and built space on the LBNL site due to implementation of the 2004 LRDP.		
iv) Landslides?	■	☐
The LBNL site includes steep slopes and retained areas. LRDP-related increases in on-site personnel and building space would create additional exposure to landslide risk, especially during seismic events. See response to 6a-I, above. The LRDP EIR will analyze the potential increased landslide-related risk from increased population and built space on the LBNL site due to implementation of the 2004 LRDP.		
b) Result in substantial soil erosion or the loss of topsoil?	■	☐
Erosion could occur during construction and excavation projects on the LBNL site. LBNL undertakes appropriate construction management practices to minimize the extent of such effects. The LRDP EIR will examine the potential loss of topsoil and potential for substantial soil erosion under the 2004 LRDP development program.		

	Will be Analyzed in EIR	No Additional Analysis Required
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?	■	☐
Implementation of the LRDP EIR is not likely to include development on areas of unstable or unsuitable soils. Future development under the LRDP would be required to meet all building standards and codes for structural integrity and personnel safety. As described in 6.a., above, the potential for development under the 2004 LRDP to occur on lands that expose people or properties to risk due to landslide, liquefaction, or other soils-related condition will be examined in the LRDP EIR;		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	■	☐
As described above, the potential for 2004 LRDP development to expose people or property to increased risk due to landslide, liquefaction, or other soils-related condition such as expansive soils, will be examined in the LRDP EIR.		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	■	☐
The LBNL site is served by sanitary sewer systems; thus, this topic does not need to be further analyzed in the LRDP EIR.		
7. HAZARDS AND HAZARDOUS MATERIALS – Would the project:		
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	■	☐

	Will be Analyzed in EIR	No Additional Analysis Required
The presence and use of hazardous materials, and the presence of hazardous waste, provides potential exposure risks to workers, the public, and the environment. These risks during routine transport, use, and disposal are reduced to less than significant levels by a wide variety of measures undertaken by the Laboratory, including compliance with applicable laws and regulations governing hazardous materials and hazardous waste management activities, and the use of Berkeley Lab's Hazardous Waste Handling Facility meeting all applicable regulatory requirements. Hazardous waste is sent to authorized treatment and disposal facilities using licensed transporters. The Laboratory also has an extensive hazardous waste minimization program. Like many older facilities at which hazardous materials have been handled, the Laboratory site includes some areas of contaminated soil and groundwater. The Laboratory undertakes detection, investigation, and remediation activities in accordance with regulatory requirements. In the judgment of regulatory agencies, past releases of hazardous materials at the Laboratory have not created significant hazards to the public or environment. LRDP-related development would not be expected to create any significant new hazardous materials issues at LBNL. Implementation of the 2004 LRDP could result in the development of additional research laboratories and other research facilities that would use, store, and require the transportation of hazardous materials and disposal of hazardous waste. Also, solvents, adhesives, cements, paints, cleaning agents, degreasers, and fuels in construction and other vehicles are among the types of existing hazardous materials used at Berkeley Lab that could increase if the 2004 LRDP is implemented. The LRDP EIR will characterize on-site hazardous materials use, transport and disposal, will identify projected increases in these activities that could occur under the LRDP program, and will evaluate potential impacts associated with these increased activities.		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	■	☐
Upset and accident conditions could expose workers, the public, and the environment to risks from releases of hazardous materials and hazardous waste. The risk of releases currently is reduced to less than significant levels by such measures as complying with Building and Fire Code provisions governing the design of earthquake- and fire-resistant structures, implementing a fuel reduction/vegetation management program that reduces fire hazards from surrounding vegetation, and maintaining necessary emergency preparedness and response capabilities. The LRDP EIR will characterize hazardous waste handling and hazardous materials use in research, operations, maintenance, and construction, along with their transport, handling and disposal. It will identify projected increases in these activities that could occur under the 2004 LRDP and will evaluate associated potential impacts, including potential risks from upset or accident conditions.		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	■	☐

	Will be Analyzed in EIR	No Additional Analysis Required
Although it is adjacent to the UC Berkeley campus, LBNL is not located within one-quarter mile of an existing or proposed school per CEQA Guideline 15186. The Lawrence Hall of Science, which is not a school but an educational institution (science museum) serving many school-aged visitors, is approximately 350 feet from Berkeley Lab's northern property line. In addition, LBNL-used space on the UC Berkeley campus may include some laboratory use of hazardous materials within one-quarter mile of schools or day care centers. While LBNL does handle certain hazardous materials in its capacity as a scientific laboratory, these materials and their handling protocols are subject to extensive regulations and procedures and oversight; they are also on-going activities that are described and approved under the 1987 LRDP and LRDP EIR. Beyond allowing for growth of normal LBNL operations and activities, the proposed LRDP is not anticipated to result in major new sources of on-site hazardous materials or handling. Nevertheless, the EIR shall include analysis of any project-related hazards that could affect the Lawrence Hall of Science and other neighbors.		
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?	■	☐
Five LBNL locations are listed on the current CAL/EPA Hazardous Waste and Substances Sites List, also known as the "Cortese list." These sites may be found at: http://www.lbl.gov/Community/env-rev-docs.html . All are listed due to past leaks from underground fuel storage tanks. Corrective action was implemented by the Laboratory, and the local regulatory agency responsible for oversight (City of Berkeley, Toxics Management Division) has approved No Further Action status for four out of the five sites. Interim corrective measures are in place at the remaining site. The sites do not create a significant hazard to the public or the environment. Contamination from the sites has not gone beyond Laboratory boundaries, and has not created any known adverse impacts to on- or off-site personnel, wildlife, or vegetation. (The presence of a site on the hazardous materials sites list does not necessarily indicate a significant hazard. Once a location has been listed, it remains on the list even after all contamination has been removed. This policy enables parties to discover whether tanks or contamination exist or formerly existed on properties where ownership may be transferred.) These sites will be briefly identified and discussed in the LRDP EIR.		
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 LBNL site is neither within an airport land use plan nor within the vicinity of an airport.		
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 LBNL site is not within the vicinity of a private airstrip.		
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	■	☐

	Will be Analyzed in EIR	No Additional Analysis Required
The LRDP likely would require that all operations and development conform or be compatible with all elements of LBNL's site emergency response and evacuation plans.		
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	■	☐
The LRDP EIR will analyze the LRDP-related risks involved with wildland fires. LRDP-related increases in on-site personnel and development would result in increased exposure of persons to potential wildland fire conditions. LBNL is on sloped terrain and adjacent to both urban areas and wildlands and is subject to dry, warm conditions and occasional high winds during the fire season. LBNL has considerable on-site fire suppression capabilities and its on-site fire department, which is maintained under contract with Alameda County, maintains mutual assistance arrangements with neighboring fire districts, and has implemented a fuel reduction/vegetation management program that has greatly reduced the risk of wildland fire in the vicinity of the Lab. All buildings are code compliant and are protected by sprinkler systems or other appropriate measures. LBNL maintains two 200,000-gallon emergency water tanks on site (with a third 200,000-gallon tank under construction) to ensure adequate emergency water supply and pressure, and construction of a third will soon be underway. Any LRDP-related new structures would be constructed under similar conditions and to applicable fire and safety codes.		
8. HYDROLOGY AND WATER QUALITY – Would the project:		
a) Violate any water quality standards or waste discharge requirements?	■	☐
Development under the 2004 LRDP could result in an increase of impermeable surface area, which could produce additional volume and pollutant loading of urban runoff. The Regional Water Quality Control Board has expressed water quality concerns for Strawberry Creek and its receiving waters (the San Francisco Bay) based on releases of sediment, bacteria, nutrients, metals and hydrocarbons. Additionally, increased water usage that could result from implementation of the 2004 LRDP could cause increases in wastewater discharges that could exceed waste discharge requirements for water quality or quantity. The LRDP EIR will evaluate impacts to water quality from runoff and characterize current waste discharge volumes of the LBNL and wastewater treatment capacity at the East Bay Municipal Utility District's (EBMUD's) wastewater treatment plant, and evaluate whether the implementation of the 2004 LRDP would result in a violation of applicable standards or waste discharge requirements.		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	■	☐

	Will be Analyzed in EIR	**No Additional Analysis Required**
LBNL does not use on-site groundwater nor does its steep terrain allow it to be an important site for groundwater recharge. Except for monitoring wells, there are no groundwater wells on-site or nearby that support existing or planned land uses. Groundwater is not a local supply source for Berkeley. Therefore, this topic will be briefly discussed in the LRDP EIR.		
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?	■	☐
Because Berkeley Lab is situated in an area of hills and canyons with multiple drainages, drainage control and maintenance has historically been an essential component of the Lab's existence. The 2004 LRDP likely would encourage siting of future projects in areas not affecting the major drainage patterns of the site. In cases where such siting is unavoidable, proper engineering would be employed to protect against erosion and siltation. Development under the 2004 LRDP could increase impervious surfaces and alter drainage patterns of building sites, which could result in increased runoff. The LRDP EIR will characterize site-wide drainage patterns and will evaluate the potential for flooding as a result of increased runoff under the proposed LRDP program		
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?	■	☐
LBNL's original stormwater drainage system was not initially designed for 100-year storm conditions, although subsequent improvements and expansion have been designed to that standard. Under extremely heavy rainfall, LBNL may contribute to off-site overloading downstream along Strawberry Creek. An LRDP-related increase of impervious surface area could add incrementally to this condition. Such an increase in impervious surface could increase the volume of surface water runoff and increase levels of urban contaminants in stormwater. The LRDP EIR will evaluate if the existing/planned drainage system could accommodate increased runoff generated as a result of development under the 2004 LRDP. The LRDP EIR will also evaluate potential impacts associated with stormwater pollution under the 2004 LRDP.		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	■	☐
See above. Such an increase in impervious surface could increase the volume of surface water. The LRDP EIR will evaluate if the existing/planned drainage system could accommodate increased runoff generated as a result of development under the 2004 LRDP. The LRDP EIR will also evaluate potential impacts associated with stormwater pollution under the 2004 LRDP. The proposed LRDP likely would encourage new on-site development for existing developed areas such that the need for new impervious surfaces would be minimized. Nonetheless, an increase of new impervious surface is expected to result from the proposed LRDP.		

	Will be Analyzed in EIR	No Additional Analysis Required
f) Otherwise substantially degrade water quality?	■	☐
Various ways in which the 2004 LRDP could potentially affect water quality are discussed above. An additional mode of potential surface water quality degradation from LBNL is airborne deposition of radionuclides. Currently, Berkeley Lab emits very small quantities of various radionuclides resulting from laboratory use of these chemicals. Because they are airborne, these radionuclides can disperse and become deposited upon surface waters in the area. Extensive monitoring of LBNL radionuclides emission to date indicates that such deposition on surface waters is generally of such low levels as to be undetectable; this has resulted in a negligible effect to area water quality. Expansion of research activities under the LRDP could result in some increase of radionuclide use and resulting emissions. These potential emissions too are expected to have negligible effect on area water quality.		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	■
The LBNL site is not within a 100-year flood hazard area nor would the proposed LRDP be directly involved in residential siting.		
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	■
See response to 8g, above.		
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?	■	☐
See response to 8g, above.		
j) Inundation by seiche, tsunami, or mudflow?	■	☐
Neither seiche, tsunami, or mudflow are considered realistic risks to the LBNL site due to its elevation and proximity to surrounding geographic features.		
9. LAND USE AND PLANNING - Would the project:		
a) Physically divide an established community?	■	☐
The LRDP would not expand or substantially change the LBNL site's borders. Surrounding communities would not be subject to physical division by potential LRDP projects.		

	Will be Analyzed in EIR	No Additional Analysis 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 LBNL site is not subject to local or agency land use planning besides the University of California's approved LBNL LRDP.		
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	■	☐
The LRDP would not affect any applicable habitat conservation plan or natural community conservation plans.		
10. MINERAL RESOURCES -- Would the project:		
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	■
The LBNL site does not include known mineral resources of regional value.		
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	■
The LBNL site does not include any locally-important mineral resource recovery sites.		
11. NOISE – Would the project result in:		
a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?	■	☐
Increases in traffic, mechanical equipment associated with new structures, and increases in LBNL Hill site population could result in potential long-term increases in noise levels. Additionally, operation of construction equipment could result in substantial short-term noise increases that might include short-term, temporary exceedances of noise ordinances in nearby areas. The LRDP EIR will analyze the magnitude of these noise increases, and will evaluate whether the increased noise levels associated with implementation of the 2004 LRDP would exceed applicable standards.		

	Will be Analyzed in EIR	No Additional Analysis Required
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	■	☐
Because construction at LBNL generally does not include pile driving, LBNL activities do not generate excessive groundborne vibration or groundborne noise levels, particularly to off-site receptors. The LRDP EIR will address vibration and groundborne noise issues, as appropriate.		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	■	☐
See above. Increases in on-site population and general operations under the 2004 LRDP could result in ambient noise-level increases. The LRDP EIR will evaluate whether the increased permanent noise levels would exceed applicable standards.		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	■	☐
See above. Operation of construction or other equipment could result in substantial temporary or short-term noise increases. The LRDP EIR will use current noise modeling methods to predict the magnitude of these temporary noise increases, and will evaluate whether the increased temporary noise levels associated with implementation of the 2004 LRDP would exceed applicable standards.		
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 LBNL site is neither within an airport land use plan nor within two miles of a public airport.		
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 LBNL site is not within the vicinity of a private airstrip.		
12. POPULATION AND HOUSING -- Would the project:		
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	■	☐

	Will be Analyzed in EIR	No Additional Analysis Required
By raising the LBNL population ceiling by approximately 750, the proposed LRDP could increase the demand for housing near the Lab area. This demand would be dispersed over 20 years and, based on current commute patterns of Lab employees, over a broad area of the East Bay and beyond. While this would be an insignificant increase in demand relative to the overall number of houses in the region, cumulative growth over 20 years could cause an aggregate increase in demand versus a dwindling supply of available residences. Hence, the LRDP could contribute slightly to a cumulative housing impact. This will be analyzed in the LRDP EIR.		
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	■
The LBNL site does not include housing or long-term residential uses, and no housing would be displaced.		
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	■
The LBNL site does not include housing or long-term residential uses, and no housing would be displaced.		
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:		
Fire protection?	■	☐
2004 LRDP-related increases in development and on-site personnel would increase the potential need for emergency fire services. LBNL's on-site fire response equipment, water storage or distribution, and fire department may be expanded as needed to address any increases in demand. The LRPD EIR will analyze impacts to both on- and off-site fire protection providers.		
Police protection?	■	☐
LRDP-related increases in development and on-site personnel would increase the potential need for police protection services. LBNL's on-site security forces likely would be expanded as needed to accommodate any increases in demand. The LRPD EIR will analyze impacts to both on- and off-site security and police protection providers.		
Schools?	■	☐

	Will be Analyzed in EIR	No Additional Analysis Required
LRDP-related increases in LBNL personnel could draw more families with school-aged children to the LBNL commute area. This would be a relatively small increase in demand for schools when dispersed over 20 years and a relatively wide geographic area. The LRPD EIR will analyze impacts to both on- and off-site security and police protection providers.		
Parks?	■	☐
LRDP-related increases in LBNL personnel could draw more families into the area and thus increase demand for parks and recreational facilities. The LRPD EIR will analyze impacts to parks and recreational facilities, as appropriate.		
Other public facilities?	■	☐
See response to 13a "Parks," above.		
14. RECREATION --		
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	■	☐
2004 LRDP-related growth in on-site personnel might slightly increase demand for parks and recreational facilities throughout the region, but this increase would be imperceptible and would not be anticipated to substantially contribute to physical deterioration of facilities. The LRDP EIR will address this issue as appropriate.		
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?	☐	■
New or expanded recreational facilities are not expected to be a result, either direct or indirect, of the proposed project. The LRDP EIR will address this issue as appropriate.		
15. TRANSPORTATION/TRAFFIC -- Would the project:		
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)?	■	☐

	Will be Analyzed in EIR	No Additional Analysis Required
Implementation of the proposed 2004 LRDP would increase the LBNL population and the number of on-site parking spaces, which could result in increased vehicular traffic on local streets and the adjacent regional highway system. The LRDP EIR will analyze the impact of additional LRDP-related and cumulative traffic on the local street networks, including intersection capacity, and the regional highway network, including the impact on the capacity of Congestion Management Program designated roadways and freeway ramps and adjacent segments.		
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	■	☐
The EIR will analyze the impact of additional 2004 LRDP-related and cumulative traffic on the local street networks, including intersection capacity, the regional highway network, and including roads and highways designated by the Alameda County Congestion Management Agency.		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	■	☐
Implementation of the 2004 LRDP would not alter existing air traffic patterns.		
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Create unsafe conditions for pedestrians or bicycles?	■	☐
The 2004 LRDP is a general land use plan intended to guide the pattern of campus development and does not articulate specific projects or structures. The LRDP EIR will evaluate the potential for future changes to the campus circulation system or development of incompatible uses to increase hazards to traffic, pedestrians or bicyclists. It is expected that any design of new roads under the proposed LRDP would feature safety and compatibility with expected uses. All appropriate design guidelines, regulations and safety plans would be followed.		
e) Result in inadequate emergency access?	■	☐
See response to 15d, above. The LRDP EIR will analyze impacts to emergency access and egress resulting from implementation of the 2004 LRDP.		
f) Result in inadequate parking capacity?	■	☐
The 2004 LRDP will include parking policies and projections to be carried out under project implementation. The LRDP EIR will evaluate the adequacy of existing and proposed parking at Berkeley Lab. Where parking demand may not be met, measures will be identified to encourage or enhance use of alternative means or transportation, including car and van-pooling, and public transportation.		

	Will be Analyzed in EIR	No Additional Analysis Required
g) Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	■	☐

See above. It is expected that the proposed LRDP would continue LBNL's policies of encouraging and accommodating alternative transportation. The proposed 2004 LRDP will describe alternative transportation modes and include policies to promote and expand their use; the LRDP EIR will analyze whether the implementation of the 2004 LRDP would conflict with applicable LRDP policies supporting alternative transportation.

16. UTILITIES AND SERVICE SYSTEMS – Would the project:		
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	■	☐

The East Bay Municipal Utility District operates a wastewater treatment plant that serves the Berkeley area. The 2004 LRDP EIR will characterize the capacity of the EBMUD plant and analyze the impact of projected increases due to development under the 2004 LRDP.

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?	■	☐

With the exception of some process water treatment, water and wastewater treatment is conducted off-site by water and wastewater service providers. Growth under the 2004 LRDP could increase the quantity of wastewater discharged to wastewater treatment facilities. The LRDP EIR will evaluate the increased demand on wastewater treatment and conveyance facilities under the LRDP, and evaluate potential impacts associated with any new or expanded facilities, if any would be required to meet this demand.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	■	☐

Development under the 2004 LRDP could increase impervious surfaces, which could increase the volume of stormwater drainage. The LRDP EIR will characterize sitewide drainage, will evaluate the increased demand for stormwater drainage facilities under the 2004 LRDP, and will evaluate potential impacts associated with any new or altered drainage facilities, if any would be required to meet this demand.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	■	☐

	Will be Analyzed in EIR	**No Additional Analysis Required**
Implementation of the proposed 2004 LRDP would increase the amount of LBNL building space and population, which could result in an increase in water usage. The LRDP EIR will evaluate whether possible water demand increases would exceed available or planned entitlements or capacity; the environmental impacts of new, expanded, or altered facilities, if any are required to meet the increased demand, would also be evaluated in the EIR.		
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?	■	☐
See above. The LRDP EIR will evaluate whether projected water demand increases associated with increased population would exceed available or planned entitlements or capacity. The LRDP EIR will also examine the environmental impacts of new, expanded, or altered facilities, if any are required to meet this increased demand.		
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	■	☐
LRDP-related on-site construction and personnel increases would be encouraged within existing developed areas, which may entail demolition of obsolete structures. This increased waste stream—from both increased operations and construction/demolition—would be partially offset by LBNL's aggressive approach to integrated recycling and reuse and overall solid waste stream reduction. Implementation of the proposed 2004 LRDP could result in an increase in LBNL's solid waste generation, including debris from construction activities. The LRDP EIR will evaluate whether existing landfill capacity is sufficient to accommodate growth under the 2004 LRDP.		
g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?	■	☐
The LRDP EIR will evaluate the impact of implementation of the 2004 LRDP on Berkeley Lab compliance with applicable statutes and regulations related to solid waste.		
17. MANDATORY FINDINGS OF SIGNIFICANCE --		
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	■	☐

	Will be Analyzed in EIR	No Additional Analysis Required
As indicated above, implementation of the 2004 LRDP has the potential to result in significant impacts that could degrade the quality of the environment. The LRDP EIR will evaluate the potential for the 2004 LRDP to result in significant impacts that could degrade the quality of the environment, reduce habitat for a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	■	☐
UC Berkeley is preparing a new LRDP to accommodate a projected enrollment increase. The City of Berkeley has updated its general plan and anticipates new growth and development. Those programs, among other programs and projects, and the proposed growth under a new 2004 LRDP could contribute to a range of cumulative impacts in the area. The LRDP EIR will evaluate whether impacts associated with growth under the 2004 LRDP, in combination with past, current, and reasonably foreseeable future projects, have the potential to be cumulatively considerable.		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	■	☐
As discussed in the checklist sections above, the proposed 2004 LRDP will have the potential to result in significant impacts. The LRDP EIR will evaluate if these impacts have the potential to result in substantial adverse effects on human beings, either directly or indirectly.		

18. Fish and Game Determination

Based on the information above, there is no evidence that the Project has a potential for a change that would adversely affect wildlife resources or the habitat upon which the wildlife depends. The presumption of adverse effect set forth in 14 CCR 753.5 (d) has been rebutted by substantial evidence.

☐   Yes (Certificate of Fee Exemption)

■   No (Pay fee)

Ernest Orlando Lawrence
Berkeley National Laboratory

One Cyclotron Road, MS 90K
Berkeley, California 94720

October 31, 2003

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

ERRATA SHEET

For:

**REVISED NOTICE OF PREPARATION
DRAFT ENVIRONMENTAL IMPACT REPORT**

Project Title: LBNL 2004 Long Range Development Plan
Project Location: Lawrence Berkeley National Laboratory
County: Alameda County, California
SCH#:   2000102046

On October 28, 2003, Lawrence Berkeley National Laboratory (LBNL) submitted to the State Clearinghouse a revised Notice of Preparation (NOP) for the above project. The NOP includes two numerical errors that overstate elements of the projected growth of LBNL under the proposed project. The following replacement text is provided to correct those errors or to otherwise clarify the text (text to be changed is underlined):

1. On Revised NOP page 7, the text currently reads:

This forecasted population would represent an increase of approximately <u>30%</u> over the current LBNL population and approximately <u>25%</u> over the 1987 LRDP population projection of 4,750.

This text is hereby amended to read:

This forecasted population would represent an increase of approximately <u>28%</u> over the current LBNL population and approximately <u>16%</u> over the 1987 LRDP population projection of 4,750.

2. On Revised NOP page 8, the text currently reads:

Implementation of the 2004 LRDP would increase the Lab's main Hill site total building area to <u>2,980,000</u> gsf.

This text is hereby amended to read:

Implementation of the 2004 LRDP would increase the Lab's main Hill site total building area to <u>approximately 2,560,000</u> gsf.
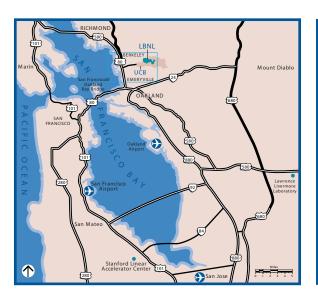

LBNL appreciates your interest in this project and welcomes your comments on the NOP by November 26, 2003 to:

Jeff Philliber
Environmental Planning Group Coordinator
Lawrence Berkeley National Laboratory
One Cyclotron Road, MS 90K
Berkeley, CA 94720

Or by e-mail to: LRDP-EIR@lbl.gov
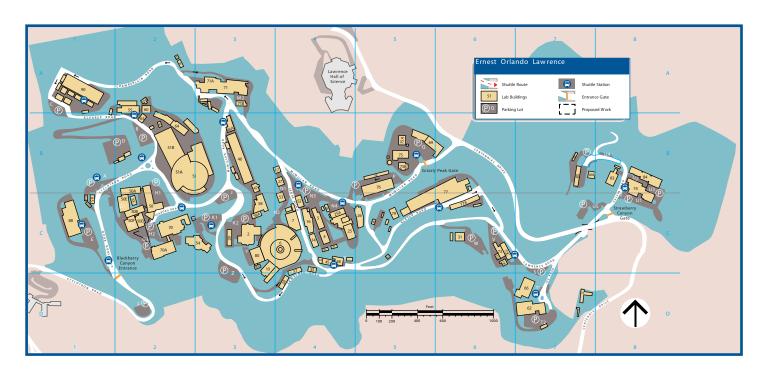

Sincerely,

Laura Chen, Chief
LBNL Facilities Planning

LBNL Regional Location

LBNL Local Location

LBNL Site

Figure 1: Regional, Local, and Site Location Maps

LBNL

LBNL

LHS

LBNL

LBNL

Panoramic Hill
Neighborhood

Athletic Fields
Memorial Stadium

Seminary Hill Neighborhood

South Side Neighborhood

UC Berkeley Campus

Downtown Berkeley

Figure 3: Land Uses
in LBNL Vicinity